



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

### Introduction

This document shows how to configure an Ubuntu OS virtual machine to be used as a template with UDS Enterprise.

During the procedure, we will show you the installation process of the OS (Ubuntu 16.04 in its minimal installation + XFCE), the connection or transport protocol (X2Go) and the UDS Actor (agent responsible for the communication between the OS and the UDS Server).

### Necessary elements

To configure the different elements that will make up the template to be used with UDS Enterprise, we will need the following:

- **OS image**

We will use a minimal image of Ubuntu 16.04, available from the official Ubuntu repository:

<https://help.ubuntu.com/community/Installation/MinimalCD>

#### 64-bit PC (amd64, x86\_64) (Recommended)

1. Ubuntu 17.04 "Zesty Zapus" 58MB (MD5: 6bd80e10bf223a04d3aafe0f997d046b)
2. Ubuntu 16.10 "Yakkety Yak" 55MB (MD5: 8a696da2b30bc335fabc1e4a0aac735d)
3. Ubuntu 16.04 LTS "Xenial Xerus" 54MB (MD5: fe495d34188a9568c8d166efc589)
4. Ubuntu 14.04 LTS "Trusty Tahr" 37MB (MD5: 7297321c2fa6424417a548c85edd)

- **X2Go**

The protocol used to connect to virtual desktops from UDS Enterprise will be X2Go.

The UDS Enterprise team has created a script that automates and simplifies the entire installation process. This script (we have generated one for the Server part, which we installed in this template and another one for the client part, which is installed in the connection client that will access the remote desktop) can be downloaded from this repository:

<http://images.udsenderprise.com/files/X2GO/>



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

### Index of /files/X2GO

<a href="#">Name</a>	<a href="#">Last modified</a>	<a href="#">Size</a>	<a href="#">Description</a>
<a href="#">Parent Directory</a>	-	-	-
<a href="#">X2GO-client.sh</a>	2017-09-14 18:04	620	
<a href="#">X2GO-server.sh</a>	2017-09-14 18:04	643	

#### ■ UDS Actor

We will need to have the latest stable version of the UDS Actor to handle the reconfiguration of all virtual desktops automatically generated by the UDS Server.

To download the UDS Actor we will need to validate in the UDS login window with a user with administrator permissions, we will display the user's menu and access downloads. In this window, we will download the Actor for Linux machines and specifically for distributions based on Debian (.deb).

The screenshot shows the 'Downloads' page of the UDS web interface. The page title is 'Downloads' and it contains a list of downloadables provided by different modules. The first item is 'udsactor\_2.2.1\_all.deb', which is circled in red. Below it are other items like 'udsactor\_2.2.0\_legacy.deb', 'udsactor-opensuse-2.2.1-1.noarch.rpm', 'udsactor-2.2.1-1.noarch.rpm', 'RDSActorSetup-2.2.1.exe', and 'UDSActorSetup-2.2.1.exe'. The user menu in the top right corner is also visible, with 'Downloads' circled in red.

#### ■ Miscellaneous

It is necessary to have Internet access in order to install both, the Ubuntu OS and NX3.5 connection protocol.

It will be necessary to configure the template network by DHCP, so we will need to have this service in the virtual interface where we connect the machine.



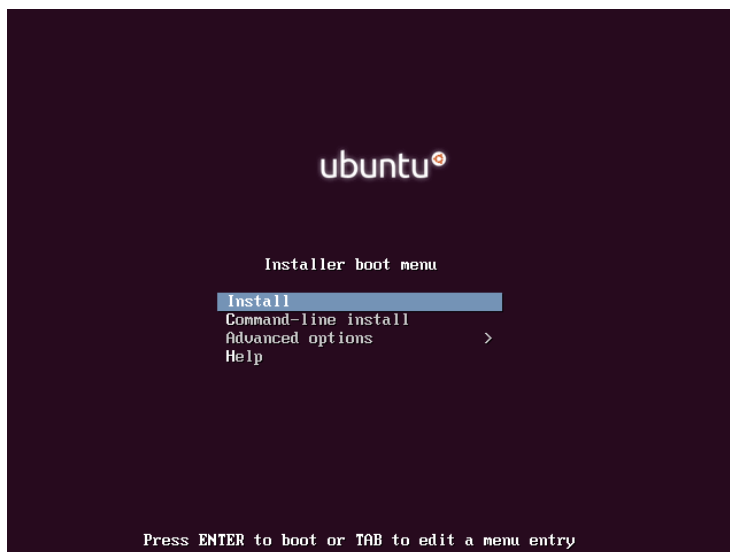
# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

### Installation and configuration

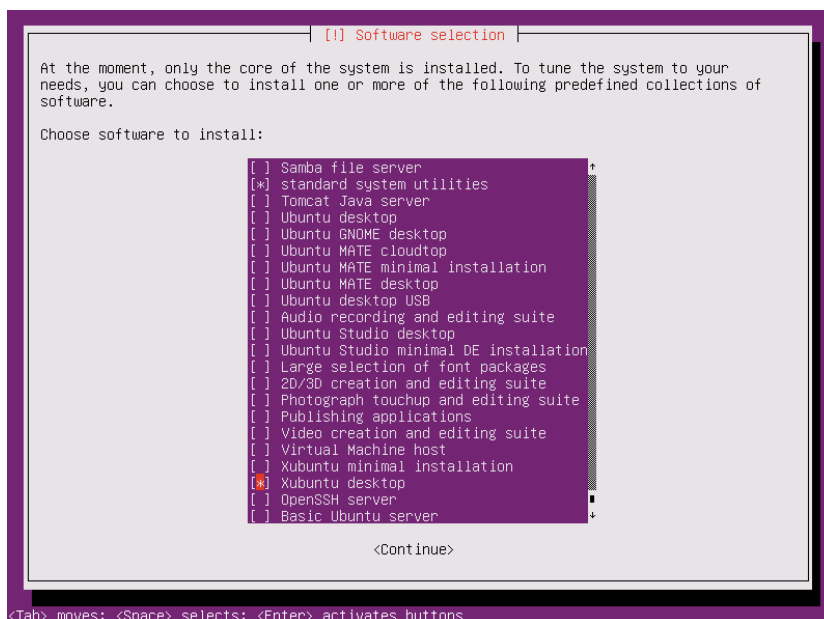
#### 1. Xubuntu 16.04

Once downloaded the minimal image of Ubuntu 16.04 (54 MB) of the official repository indicated in the previous section, we proceed to perform its installation:



The installation will be done with the default values and indicate some resources (disk, vRAM and vCPUs) according to the use.

When we get to the part of the installation wizard where we are asked to select the programs to install, we will mark "**Xubuntu desktop**". This option will install and configure the XFCE desktop environment on our Ubuntu machine.



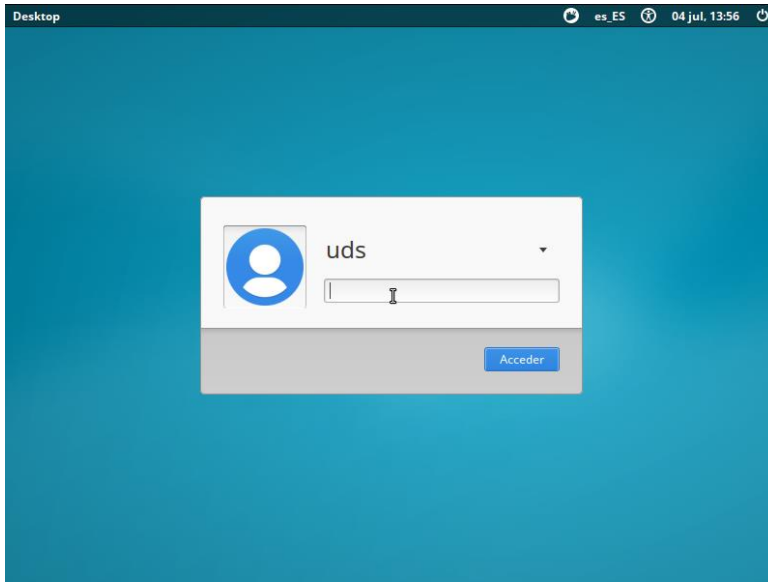


# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

We leave the rest of the indicated fields as they are by default.

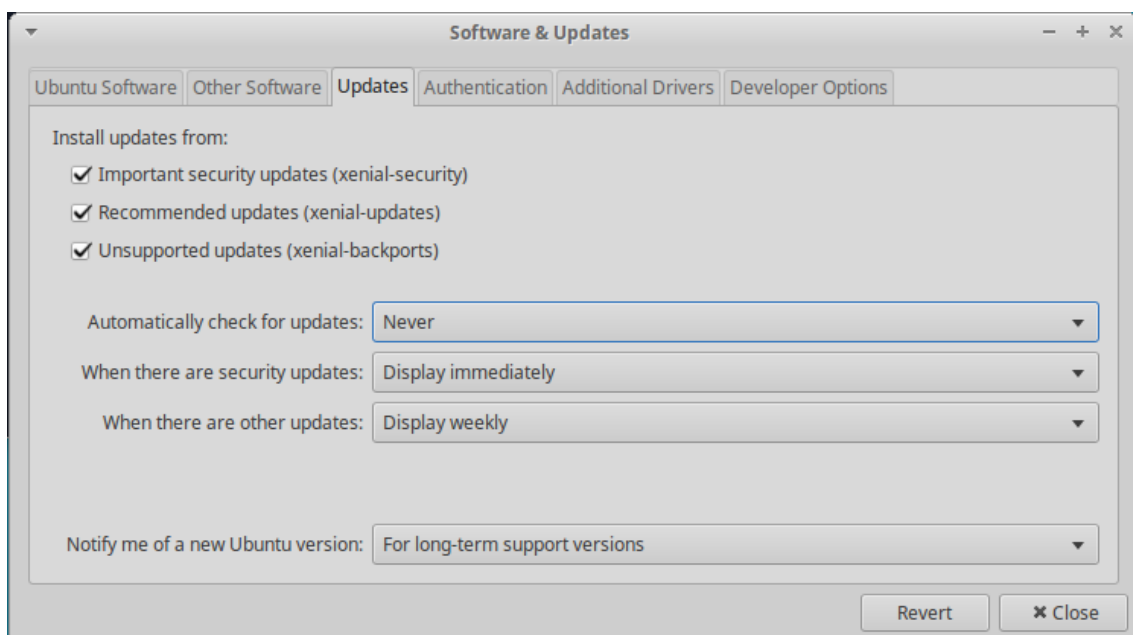
Once the installation is complete, we will be able to access our Ubuntu 16.04 + XFCE (Xubuntu 16.04).



It is important that, once the installation of the OS is achieved, you install the virtual machine drivers corresponding to the virtualization platform. In this example, we will install the "**open tools**", since the machine will run on the virtual platform VMware vSphere.

```
uds@desktop:~$ sudo apt-get install open-vm-tools
```

It is also recommended to disable automatic updates and in case you need to update the OS you perform it manually.





# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

### 2. X2Go Server

Before proceeding with the installation of X2Go, we will need to update our repositories.

```
uds@desktop:~$ sudo apt-get update
```

Once updated, we can proceed to the installation of X2Go (Server) through the script provided by VirtualCable (it is necessary to execute the script with a graphic environment session running).

Copy the script to Xubuntu template:

```
wget http://images.udsenderprise.com/files/X2GO/X2GO-Server.sh
```

```
root@uds:/home/uds# wget images.udsenderprise.com/files/X2GO/X2GO-server.sh
--2017-09-14 18:32:42-- http://images.udsenderprise.com/files/X2GO/X2GO-server.sh
Resolving images.udsenderprise.com (images.udsenderprise.com)... 51.254.16.51
Connecting to images.udsenderprise.com (images.udsenderprise.com)|51.254.16.51|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 643 [text/x-sh]
Saving to: 'X2GO-server.sh'

X2GO-server.sh          100%[=====] 643  --.-KB/s   in 0s
2017-09-14 18:32:42 (107 MB/s) - 'X2GO-server.sh' saved [643/643]
```

Locate the script and proceed with the execution:

```
root@uds:/home/uds# ls /home/uds/
Desktop Documents Downloads Music Pictures Public Templates Videos X2GO-server.sh
```

```
root@uds:/home/uds# sudo sh /home/uds/X2GO-server.sh
```

After all the components are installed, we can proceed with the installation of X2Go on our client machine.

### 3. X2Go Client

This element does not need to be installed in the template, we will need to install it in our client to enable access to remote desktops through this protocol.

Before proceeding with the installation of X2Go client, we will need to update our repositories.

```
uds@desktop:~$ sudo apt-get update
```

Once updated, we can proceed to the installation of X2Go (client) through the script provided by VirtualCable (it is necessary to execute the script with a graphic environment session running).



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

Copy the script to the client machine:

**wget http://images.udsenderprise.com/files/X2GO/X2GO-client.sh**

```
root@uds:/home/uds# wget images.udsenderprise.com/files/X2GO/X2GO-client.sh
--2017-09-14 18:42:21-- http://images.udsenderprise.com/files/X2GO/X2GO-client.sh
Resolving images.udsenderprise.com (images.udsenderprise.com)... 51.254.16.51
Connecting to images.udsenderprise.com (images.udsenderprise.com)|51.254.16.51|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 620 [text/x-sh]
Saving to: 'X2GO-client.sh'

X2GO-client.sh          100%[=====] 620 --.-KB/s  in 0s

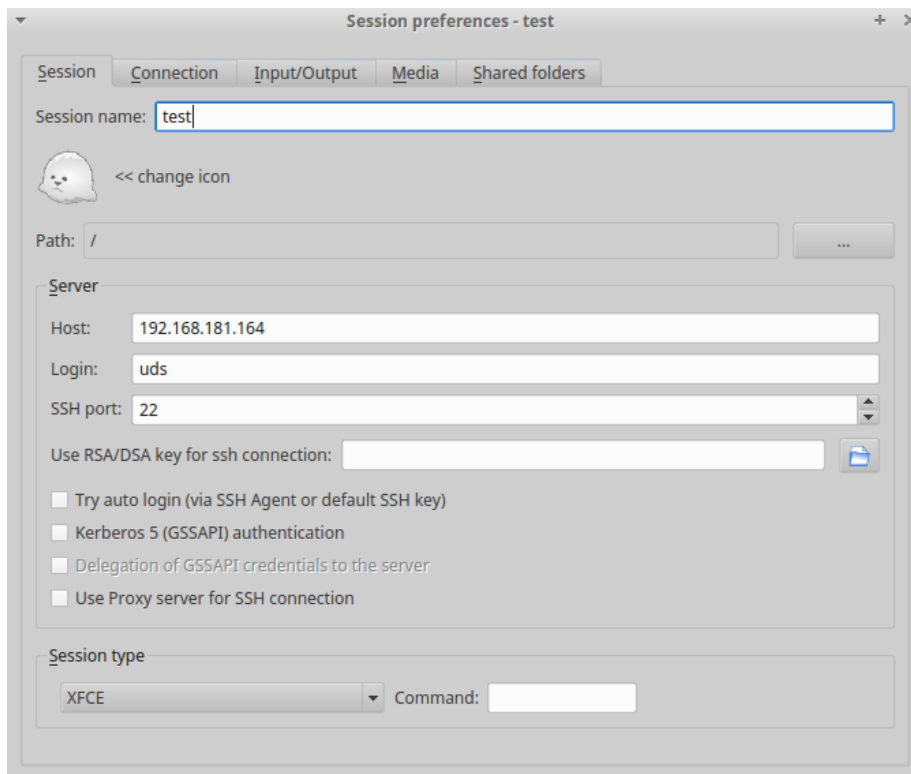
2017-09-14 18:42:22 (19.2 MB/s) - 'X2GO-client.sh' saved [620/620]
```

Locate the script and proceed with the execution:

```
root@uds:/home/uds# ls /home/uds/
Desktop Documents Downloads Music Pictures Public Templates Videos X2GO-client.sh
root@uds:/home/uds#
```

```
root@uds:/home/uds# sudo sh /home/uds/X2GO-client.sh
```

Once the client has X2Go installed, we can proceed with the test of the remote connection from our client to the template.



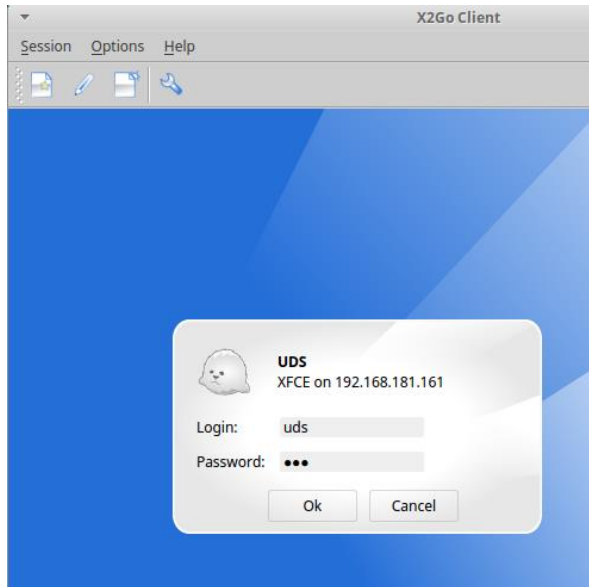
- Enter the Server IP in the field "host"
- Enter the user name in the field "login",
- It is necessary to select XFCE as "session type".



# UDS Enterprise – Preparing Templates

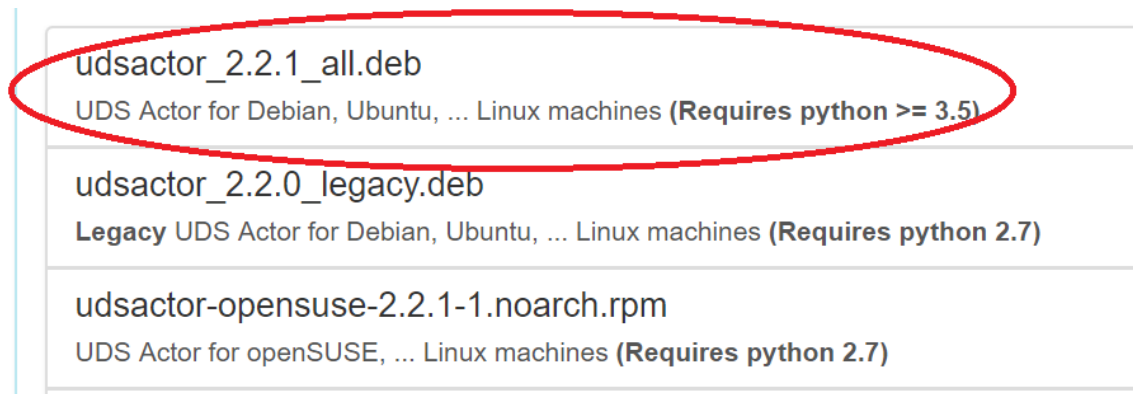
## Xubuntu 16.04 + X2Go + UDS Actor

We continue and proceed with the login page. Enter the password. If the connection is successful and shows you the remote desktop, you can then proceed with the installation and configuration of the UDS Actor in the template.



### 4. UDS Actor

Download the UDS Actor for **Debian-based distributions**.



We proceed to install the UDS Actor with the command: **dpkg -i**

```
root@ubuntu:/home/test/Downloads# ls
udsactor_2.2.1_all.deb
root@ubuntu:/home/test/Downloads#
```



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

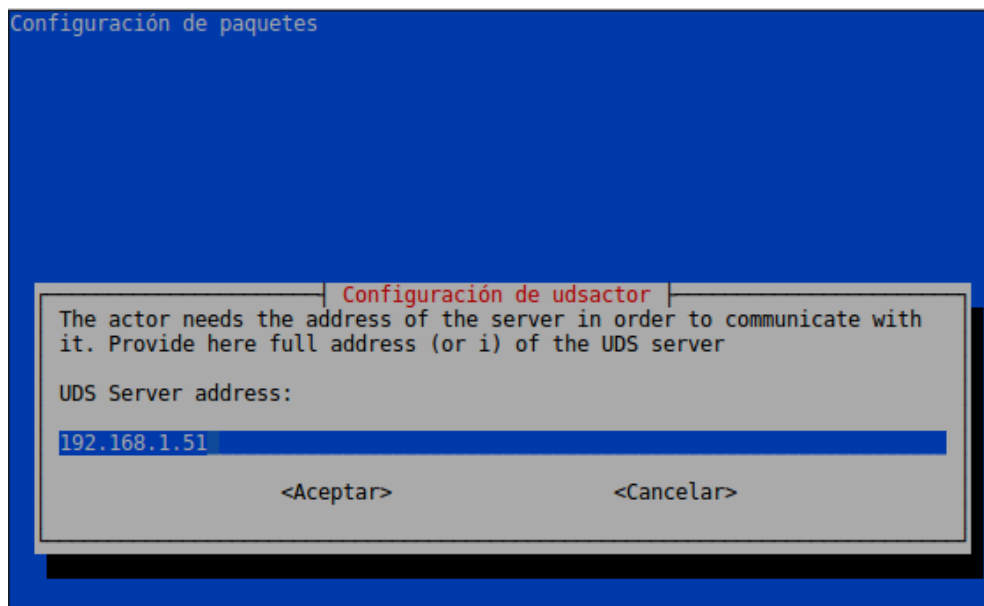
The process will fail due to missing dependencies, so we will execute the command: `apt-get install -f` to be installed automatically.

```
dpkg: dependency problems prevent configuration of udsactor:
 udsactor depends on python-requests (>= 0.8.2); however:
  Package python-requests is not installed.
 udsactor depends on python-qt4 (>= 4.9); however:
  Package python-qt4 is not installed.
 udsactor depends on python-six (>= 1.1); however:
  Package python-six is not installed.
 udsactor depends on python-prctl (>= 1.1.1); however:
  Package python-prctl is not installed.
 udsactor depends on xscreensaver; however:
  Package xscreensaver is not installed.

dpkg: error processing package udsactor (--install):
 dependency problems - leaving unconfigured
Processing triggers for ureadahead (0.100.0-19) ...
Processing triggers for systemd (232-21ubuntu2) ...
Processing triggers for bamfdaemon (0.5.3+17.04.20170406-0ubuntu1) ...
Rebuilding /usr/share/applications/bamf-2.index...
Processing triggers for gnome-menus (3.13.3-6ubuntu5) ...
Processing triggers for desktop-file-utils (0.23-1ubuntu2) ...
Processing triggers for mime-support (3.60ubuntu1) ...
Errors were encountered while processing:
 udsactor
root@ubuntu:/home/user/Downloads# apt-get install -f
```

Once these dependencies are installed, the UDS Actor setup wizard will be launched automatically.

The first task is to enter the IP address or UDS Server name (broker):



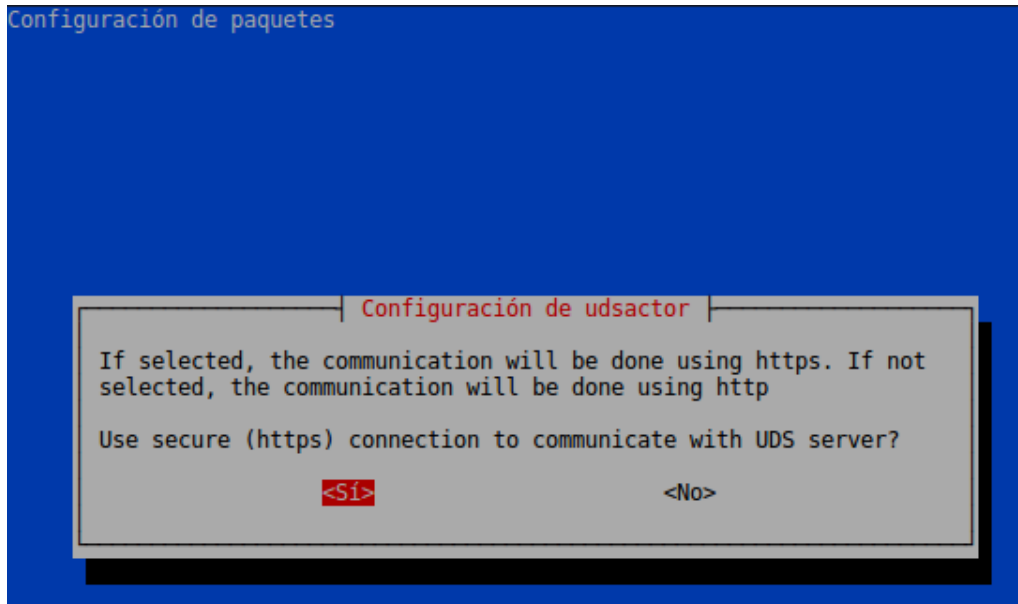




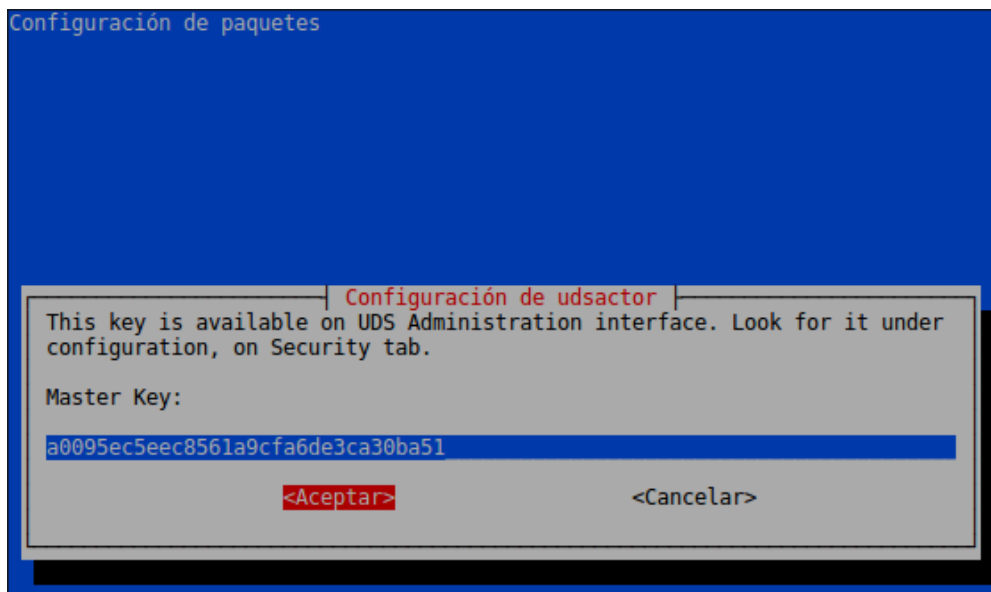
# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

We will indicate if we want to use a secure connection with UDS Server:



We add the "**Master key**" that we obtain by accessing the UDS Server web page (entering control panel, **Tools menu - Configuration**, tab "**Security**").



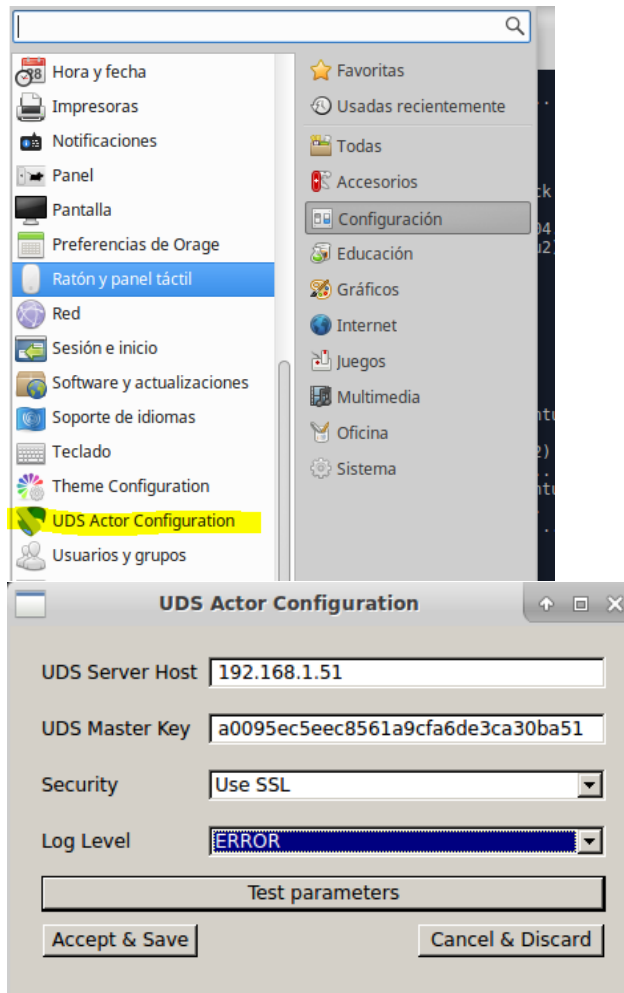
We have finished configuring the UDS Actor.



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

The next step will validate that we have communication with the UDS Server through the **ports 80/443**, and that the indicated "**Master Key**" is valid. We open the Actor configuration and perform a connection test:



In case we need to modify some parameters, we can do it from this window or also editing the file: **/etc/udsActor/udsActor.cfg**

```
uds@Desktop:/etc$ sudo su
root@Desktop:/etc# vi /etc/udsactor/udsactor.cfg
```

```
[uds]
logLevel = 30000
ssl = True
host = 192.168.1.51
masterKey = a0095ec5eec8561a9cfa6de3ca30ba51
```



# UDS Enterprise – Preparing Templates

## Xubuntu 16.04 + X2Go + UDS Actor

### Summary

Once all these steps have been completed, we will have our OS Xubuntu 16.04 available for use with UDS Enterprise using the X2Go connection protocol.

From this template, UDS Enterprise will automatically generate virtual desktops, which can be accessed from Windows and Linux connection clients.

### Support and Professional Services

VirtualCable markets UDS Enterprise through a subscription model, including support and updates, depending on the number of users.

In addition, VirtualCable offers professional services to install and configure UDS Enterprise and other virtualization technologies.

For more information, visit [www.udsenderprise.com](http://www.udsenderprise.com) or send us an email to [info@udsenderprise.com](mailto:info@udsenderprise.com)