



# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + UDS Actor

### Introduction

This document shows how to configure a Linux Ubuntu VM to be used as a template with UDS Enterprise.

In this document, we will show you the installation process of the OS (Ubuntu 16.04 in its minimal installation + XFCE), connection or transport protocol (XRDP 0.9.1) and UDS Actor (agent responsible for 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: 8a696da2b30bc335fab1e4a0aac735d)
3. Ubuntu 16.04 LTS "Xenial Xerus" 54MB (MD5: fe495d34188a9568c8d166efc589)
4. Ubuntu 14.04 LTS "Trusty Tahr" 37MB (MD5: 7297321c2fa6424417a548c85edd)

- **XRDP 0.9.1**

The protocol used to connect to virtual desktops from UDS Enterprise will be XRDP 0.9.1, which will allow us, in addition to making the remote connection, the redirection of disk drives and storage drives.

The installation process of this version with all its functionalities takes much effort and sometimes is frustrating. To facilitate this task, the UDS Enterprise development team has created a script that automates the entire installation process. This script can be downloaded from this repository:

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



# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + UDS Actor

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
<a href="#">Parent Directory</a>		-	
<a href="#">xorgxrdp-0.2.0.tar.gz</a>	2017-05-25 02:05	413K	
<a href="#">xrdp-0.9.1.tar.gz</a>	2017-05-25 02:05	2.9M	
<a href="#">xrdp-install.sh</a>	2017-06-20 11:02	14K	

### 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. Then, 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)

Universal Desktop Services

UDS Actor for Debian, Ubuntu, ... Linux machines (Requires python >= 3.5)

udsactor\_2.2.1\_all.deb

udsactor\_2.2.0\_legacy.deb

Legacy UDS Actor for Debian, Ubuntu, ... Linux machines (Requires python 2.7)

udsactor-opensuse-2.2.1-1.noarch.rpm

UDS Actor for openSUSE, ... Linux machines (Requires python 2.7)

udsactor-2.2.1-1.noarch.rpm

UDS Actor for Centos, Fedora, RH, ... Linux machines (Requires python 2.7)

RDSActorSetup-2.2.1.exe

RDS UDS Actor (for remote apps on Windows Server 2012 and 2016)

UDSActorSetup-2.2.1.exe

UDS Actor for windows machines

### Miscellaneous

It is necessary to have Internet access in order to install both, the Ubuntu OS and XRDP 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.



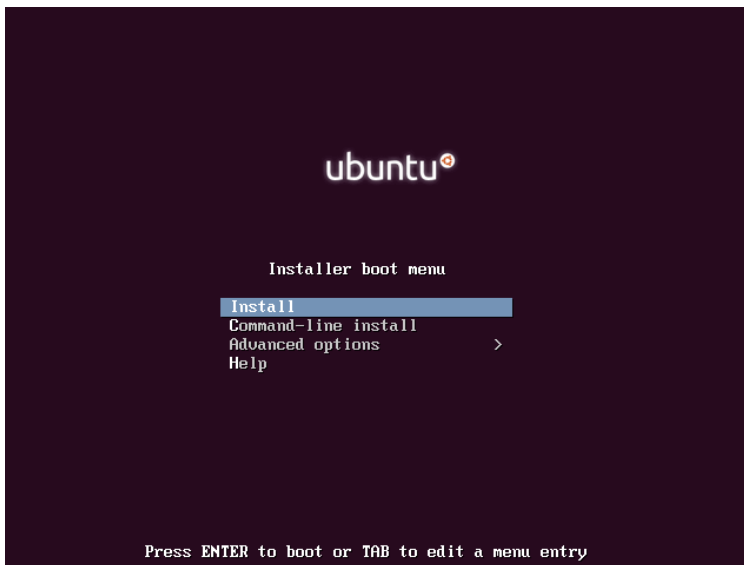
# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + UDS Actor

### Installation and Configuration

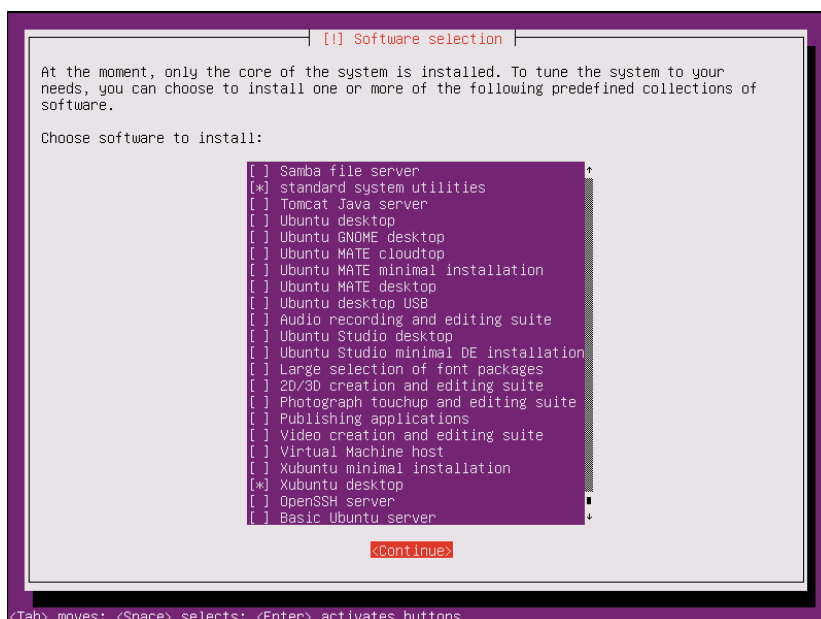
#### 1. Xubuntu 16.04

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.



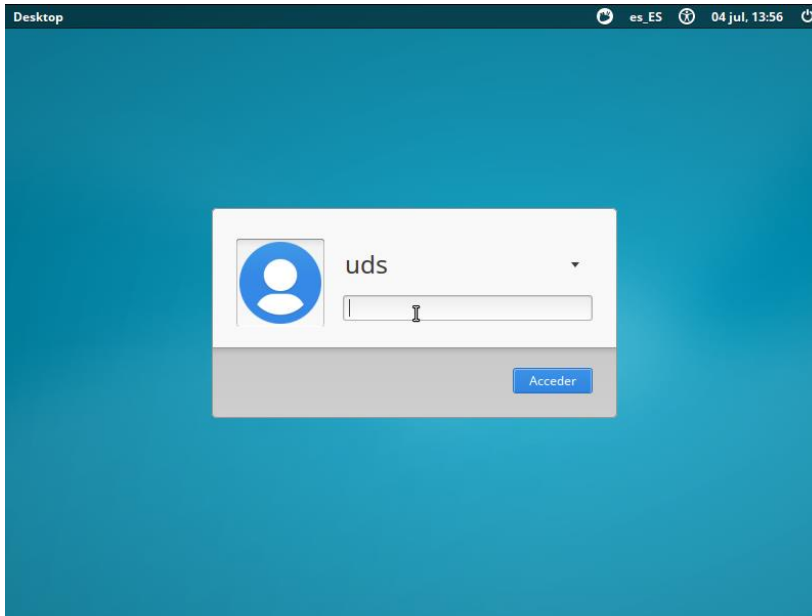


# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + UDS Actor

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

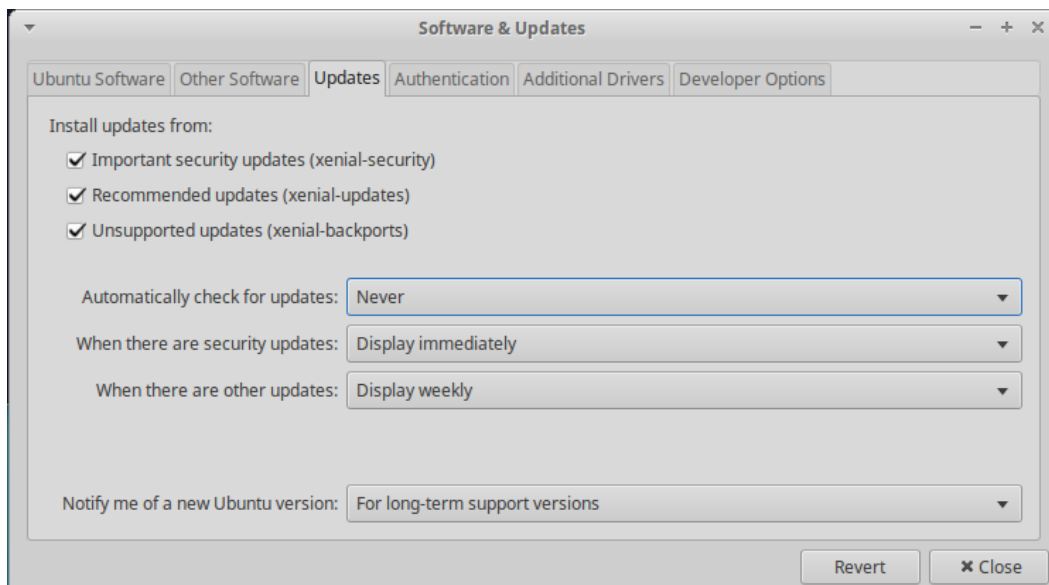
Once the installation is complete, we will be able to access our Ubuntu 16.04 + XFCE (Xubuntu 16.04).



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 + XRDP 0.9.1 + UDS Actor

### 2. XRDP 0.9.1

Before proceeding with the installation of XRDP, we will need to update our repositories:

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

Once updated, we will proceed to the installation of XRDP in its version 0.9.1 through the [script](#) provided by the development team of UDS Enterprise (it is necessary to execute the script with a graphical environment session running).

We copy the script to our Xubuntu template and execute it:

wget <http://images.udsenderprise.com/files/XRDP/xrdp-install.sh>

```
uds@Desktop:~/Descargas$ ls
xrdp-install.sh
uds@Desktop:~/Descargas$ sudo sh xrdp-install.sh
```

During the installation process, other necessary components will automatically be added. The estimated time of installation is 4 to 8 minutes.

During the installation process, the following tasks are performed:

- Checks that the **setxkbmap** is available (command to query and change the keyboard)
- Performs a prerequisite installation to compile the **xrdp** service
- Installs an alternative desktop for use with xrdp, in this case it will install the **XFCE4** desktop environment
- Automatically downloads the latest **xrdp** and **xorgxrdp** packages
- Compiles previously downloaded **xorgxrdp** packages
- Installs **x11vnc** and **tightvncServer**, open software for remote access
- Configures the window manager
- Generates certificates
- Installs **XRDP**

Once the whole process is finished, we will check our version of XRDP with the command: **xrdp --version**

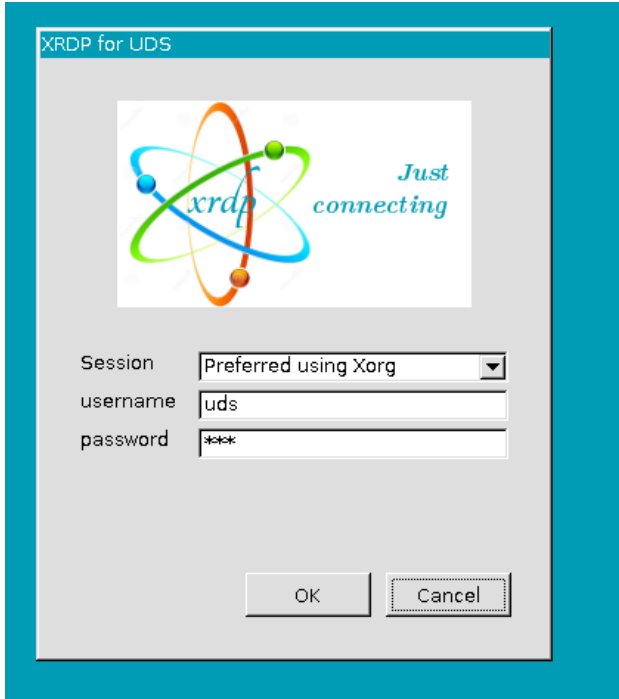
```
uds@Desktop:~$ xrdp --version
xrdp: A Remote Desktop Protocol server.
Copyright (C) Jay Sorg 2004-2014
See http://www.xrdp.org for more information.
Version 0.9.1
```



# UDS Enterprise- Preparing Templates

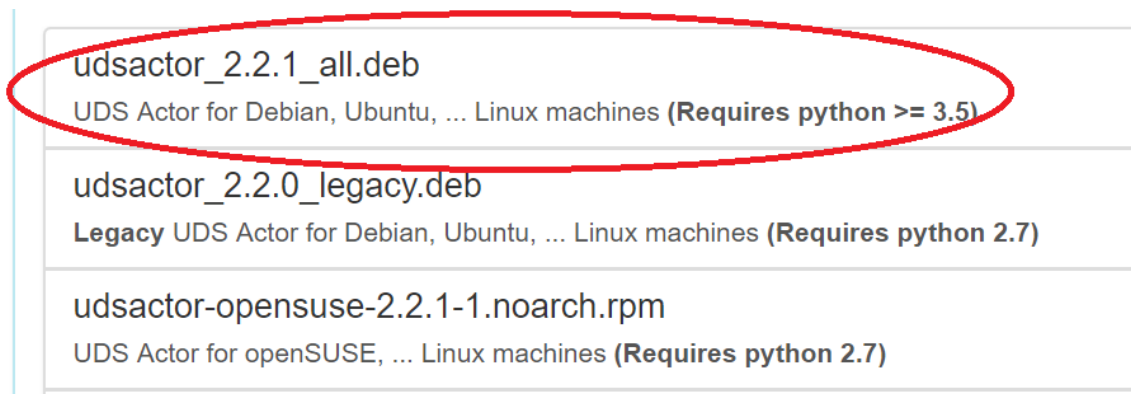
## Xubuntu 16.04 + XRDP 0.9.1 + UDS Actor

Restart the template and check the access through the Windows RDP client "remote desktop" or Linux "freerdp" / "rdesktop".



### 3. 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 + XRDP 0.9.1 + UDS Actor

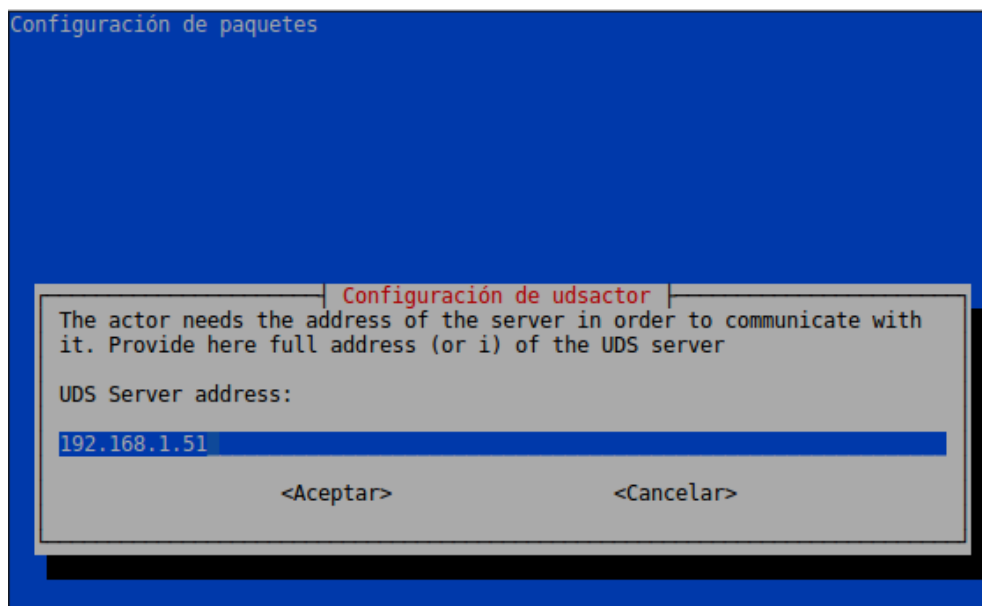
The process will fail due to missing dependencies, so we will execute the command: `apt-get install -f` to be installed automatically.

```
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):

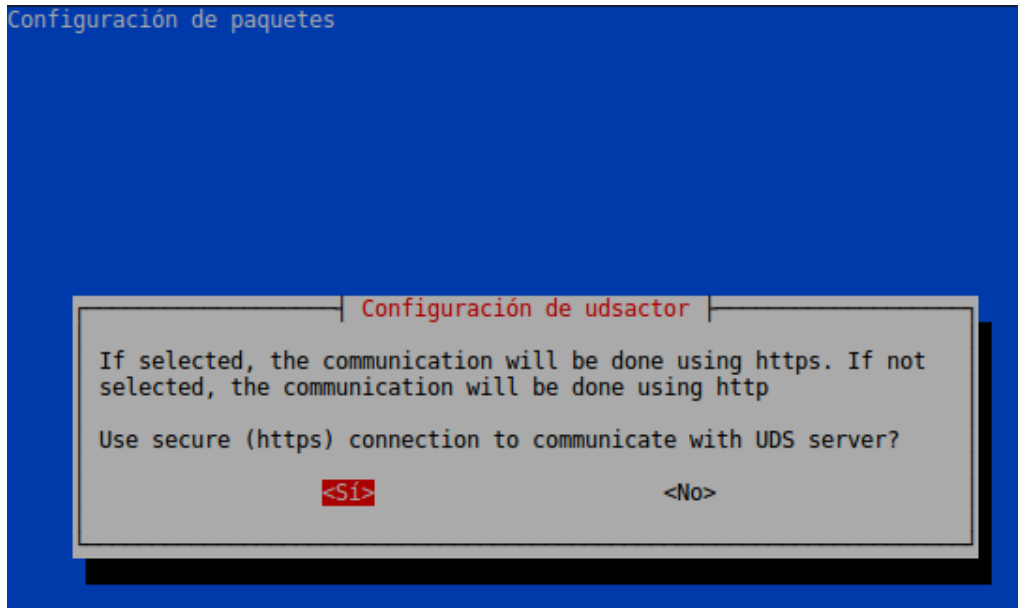




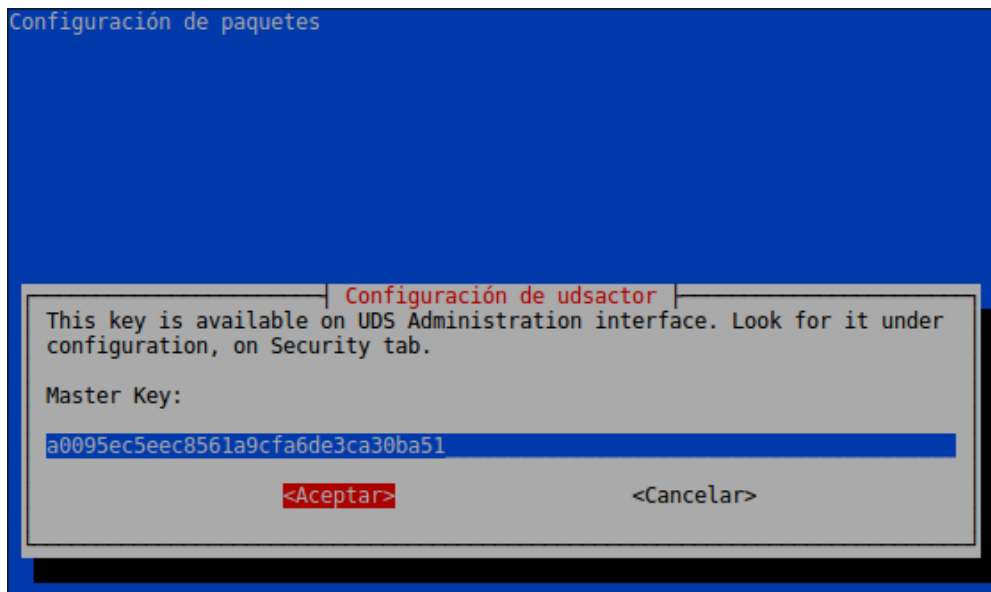
# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + 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.

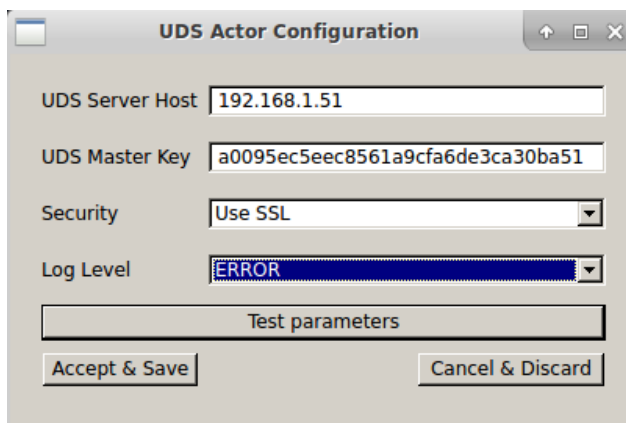
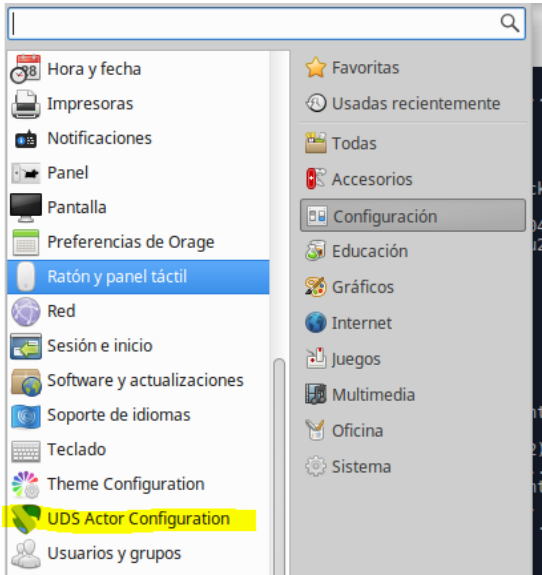




# UDS Enterprise- Preparing Templates

## Xubuntu 16.04 + XRDP 0.9.1 + 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 + XRDP 0.9.1 + 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 XRDP 0.9.1 connection protocol.

This mode of installation and configuration will allow the redirection of disk drives and storage drives to the virtual desktop.

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

- From Windows computers with the RDP client: Remote Desktop
- From Linux computers with RDP clients: FreeRDP and rDesktop

### Support and professional services

VirtualCable sells UDS Enterprise through a subscription model, including product support and updates in segments based on number of users.

Additionally, VirtualCable offers a broad portfolio of professional services to install and configure UDS Enterprise and other virtualization technologies.

For further information visit [www.udsenderprise.com](http://www.udsenderprise.com) or email us at [info@udsenderprise.com](mailto:info@udsenderprise.com)