



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: 8a696da2b30bc335fabce1e4a0aac735d)
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/>



Index of /files/X2GO

Name	Last modified	Size	Description
Parent Directory		-	
X2GO-client.sh	2017-09-14 18:04	620	
X2GO-server.sh	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 the downloads. In this window, we will download the Actor for Linux machines and specifically for distributions based on Debian (.deb)

Universal Desktop Services Acerca de Español [User Profile]

Descargas

Esta página contiene una lista de descargas proporcionadas por diferentes módulos

- udsactor-opensuse-2.1.0-1.noarch.rpm**
Actor UDS para openSUSE... Máquinas Linux (Requiere python 2.7)
- udsactor_2.1.0_all.deb**
Actor UDS para Debian, Ubuntu... Máquinas Linux (Requiere python 2.7)
- UDSActorSetup-2.1.0.exe
Actor UDS para máquinas Windows
- udsactor-2.1.0-1.noarch.rpm
Actor UDS para CentOS, Fedora, RH... máquinas Linux (Requiere python 2.7)
- RDSActorSetup-2.1.0.exe
Agente de UDS RDS (para RemoteApps en Windows Server 2012)

Plugin UDS
Descargas
Panel de control
Cerrar sesión

Miscellaneous

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

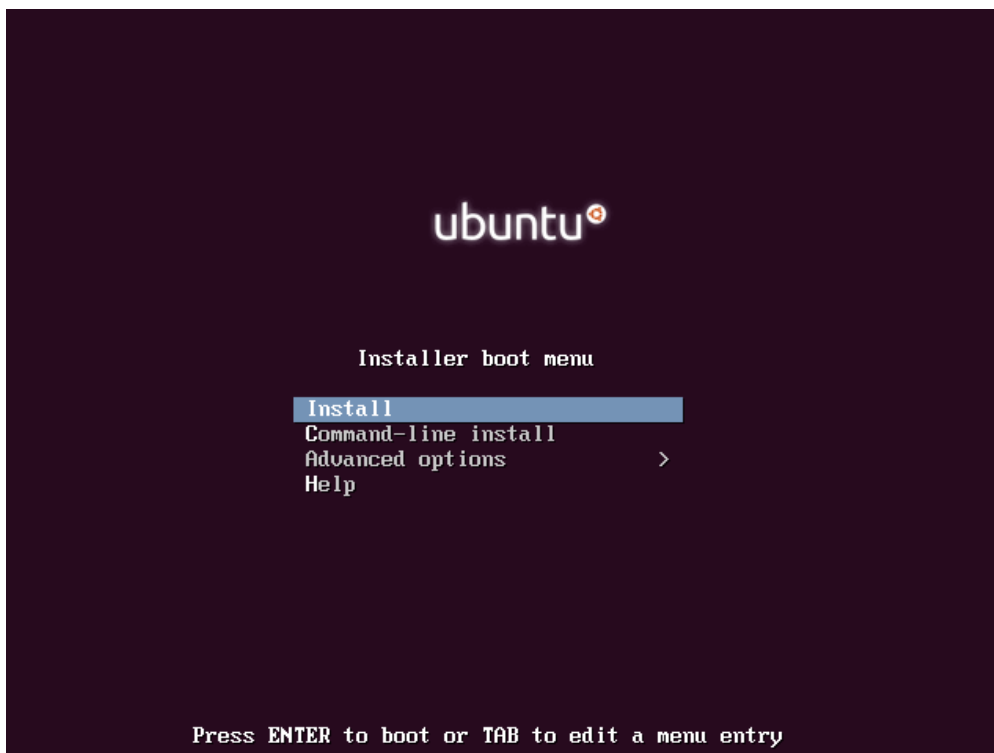
It will be necessary to configure the template network by DHCP, so we will need to have this service in the virtual interface where we connect the machine.



Installation and Configuration

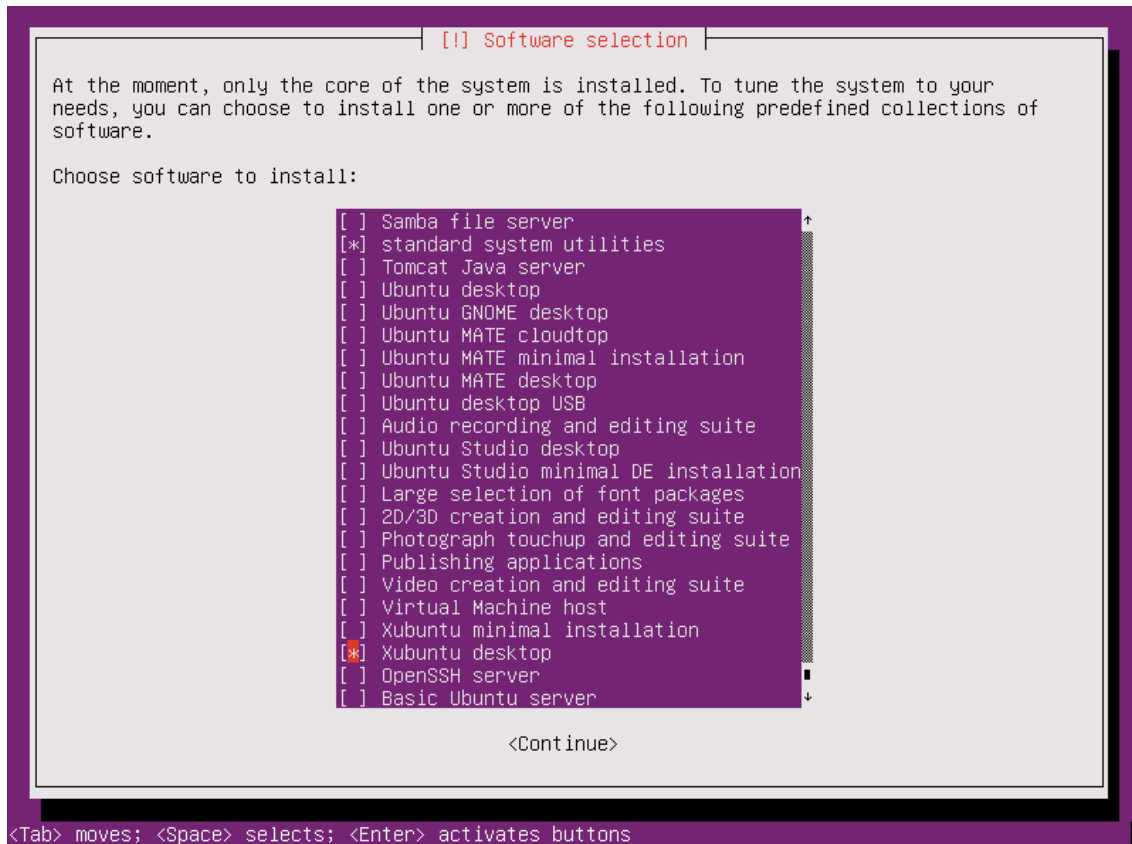
1. Xubuntu 16.04

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:



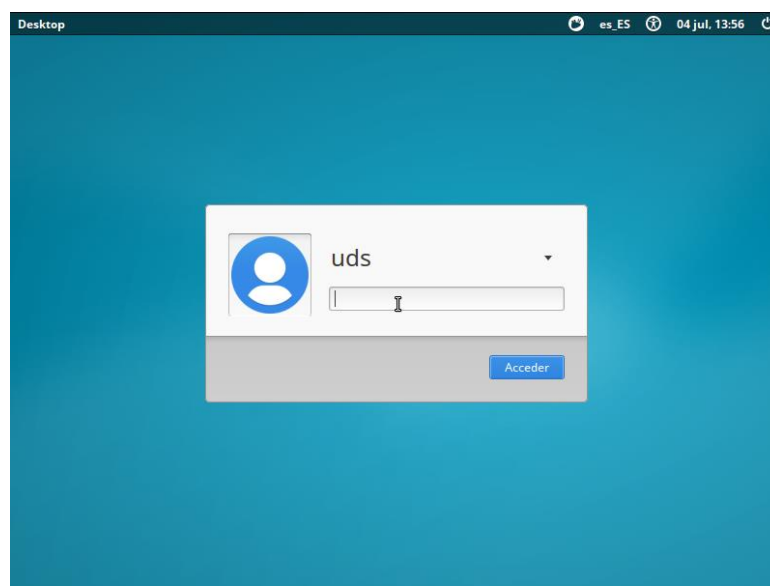
The installation will be done with the default values and indicate some resources (disk, vRAM and vCPUs) according to the use.

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.



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)

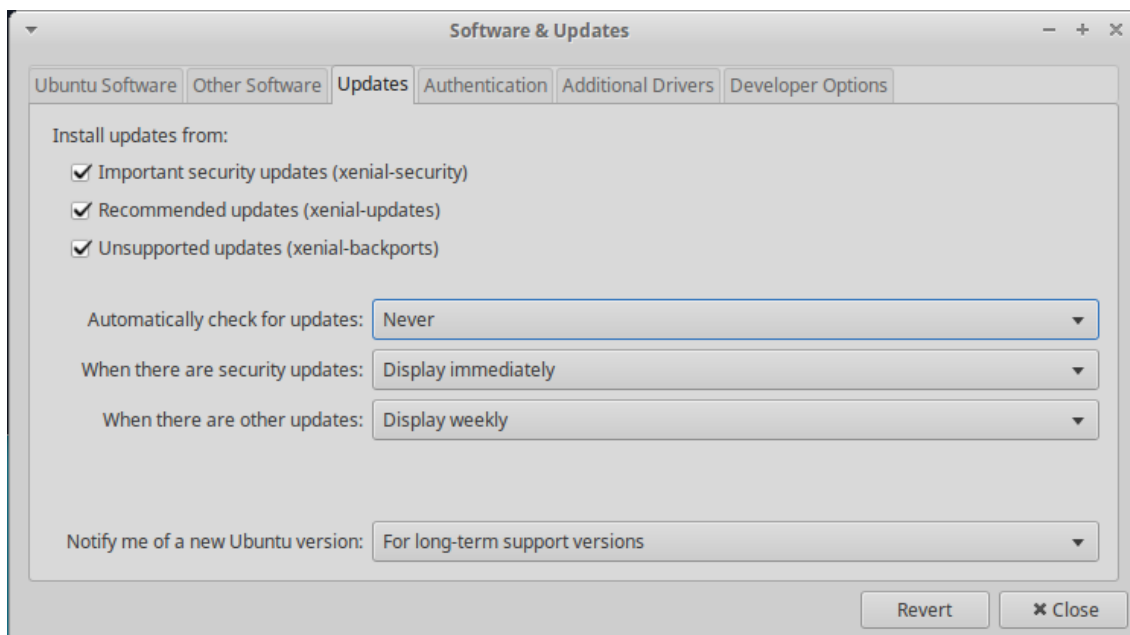




It is important that, once the installation of the OS is achieved, you install the virtual machine drivers corresponding to the virtualization platform. In this example, we will install the "open tools", since the machine will run on the virtual platform VMware vSphere.

```
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.



2. X2Go Server

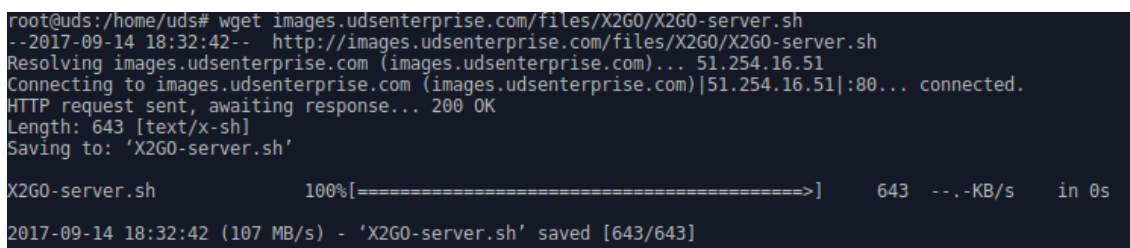
Before proceeding with the installation of X2Go, we will need to update our repositories.

```
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
```





Locate the script and proceed with the execution:

```
root@uds:/home/uds# ls /home/uds/
Desktop Documents Downloads Music Pictures Public Templates Videos X2G0-server.sh
root@uds:/home/uds#
root@uds:/home/uds# sudo sh /home/uds/X2G0-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).

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'

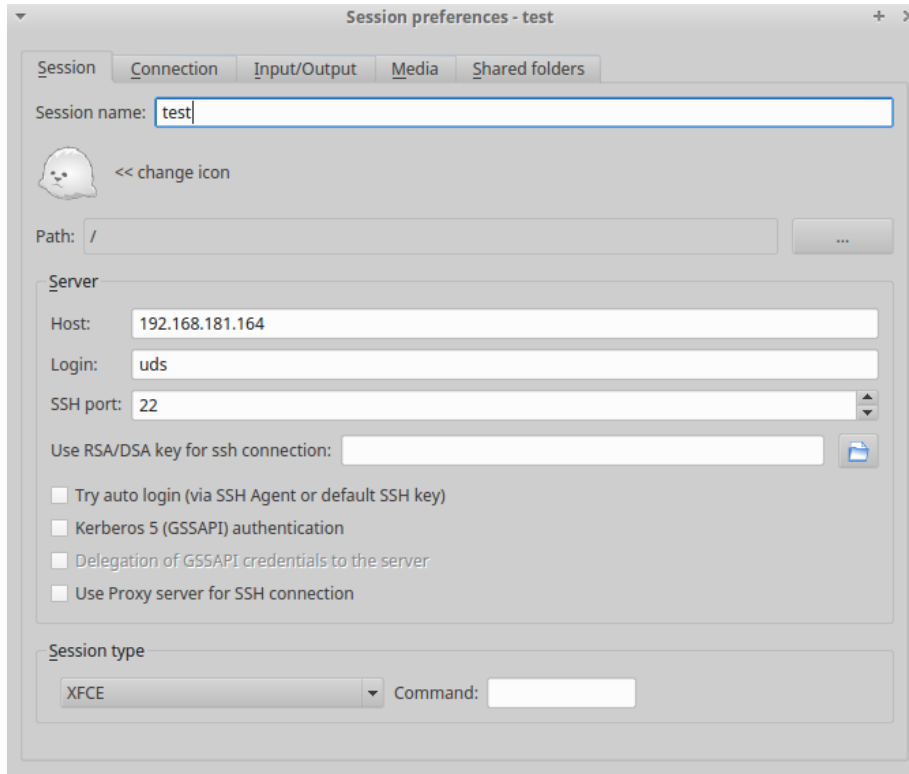
X2GO-client.sh          100%[=====] 620  --.-KB/s  in 0s
2017-09-14 18:42:22 (19.2 MB/s) - 'X2GO-client.sh' saved [620/620]
```

Locate the script and proceed with the execution:

```
root@uds:/home/uds# ls /home/uds/
Desktop Documents Downloads Music Pictures Public Templates Videos X2G0-client.sh
root@uds:/home/uds#
root@uds:/home/uds# sudo sh /home/uds/X2G0-client.sh
```

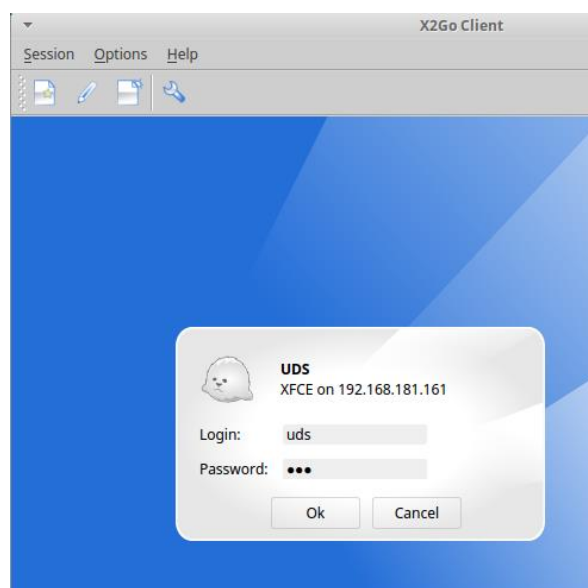


Once the client has X2Go installed, we can proceed with the test of the remote connection from our client to the template.



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".

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

Universal Desktop Services

Downloads

This page contains a list of downloadables provided by different modules

- udsactor-opensuse-2.1.0-1.noarch.rpm
UDS Actor for openSUSE, ... Linux machines (Requires python 2.7)
- udsactor_2.1.0_all.deb**
UDS Actor for Debian, Ubuntu, ... Linux machines (Requires python 2.7)
- UDSActorSetup-2.1.0.exe
UDS Actor for windows machines
- udsactor-2.1.0-1.noarch.rpm
UDS Actor for Centos, Fedora, RH, ... Linux machines (Requires python 2.7)
- RDSActorSetup-2.1.0.exe
RDS UDS Actor (for remote apps on Windows Server 2012)

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

```
uds@Desktop:~/Descargas$ sudo dpkg -i udsactor_2.1.0_all.deb
```

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

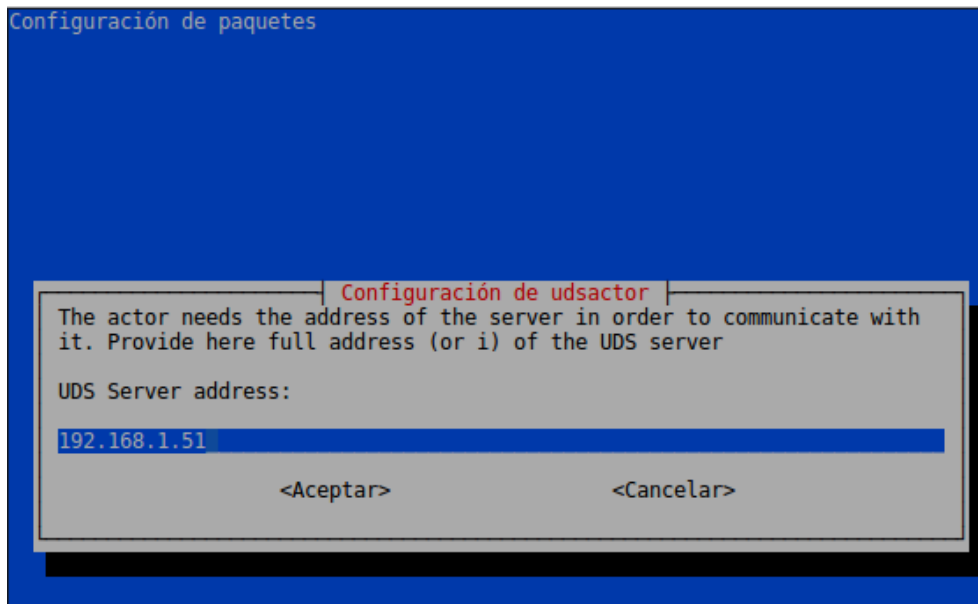
```
uds@Desktop:~/Descargas$ sudo dpkg -i udsactor_2.1.0_all.deb
[sudo] password for uds:
Seleccionando el paquete udsactor previamente no seleccionado.
(Leyendo la base de datos ... 169523 ficheros o directorios instalados actualmen
te.)
Preparando para desempaquetar udsactor_2.1.0_all.deb ...
Desempaquetando udsactor (2.1.0) ...
dpkg: problemas de dependencias impiden la configuración de udsactor:
 udsactor depende de python-requests (>= 0.8.2); sin embargo:
  El paquete `python-requests' no está instalado.
 udsactor depende de python-qt4 (>= 4.9); sin embargo:
  El paquete `python-qt4' no está instalado.
 udsactor depende de python-six (>= 1.1); sin embargo:
  El paquete `python-six' no está instalado.
 udsactor depende de python-prctl (>= 1.1.1); sin embargo:
  El paquete `python-prctl' no está instalado.

dpkg: error al procesar el paquete udsactor (--install):
 problemas de dependencias - se deja sin configurar
Procesando disparadores para systemd (229-4ubuntu17) ...
Procesando disparadores para ureadahead (0.100.0-19) ...
Procesando disparadores para gnome-menus (3.13.3-6ubuntu3.1) ...
Procesando disparadores para desktop-file-utils (0.22-1ubuntu5.1) ...
Procesando disparadores para mime-support (3.59ubuntu1) ...
Se encontraron errores al procesar:
 udsactor
uds@Desktop:~/Descargas$ sudo apt-get install -f
```

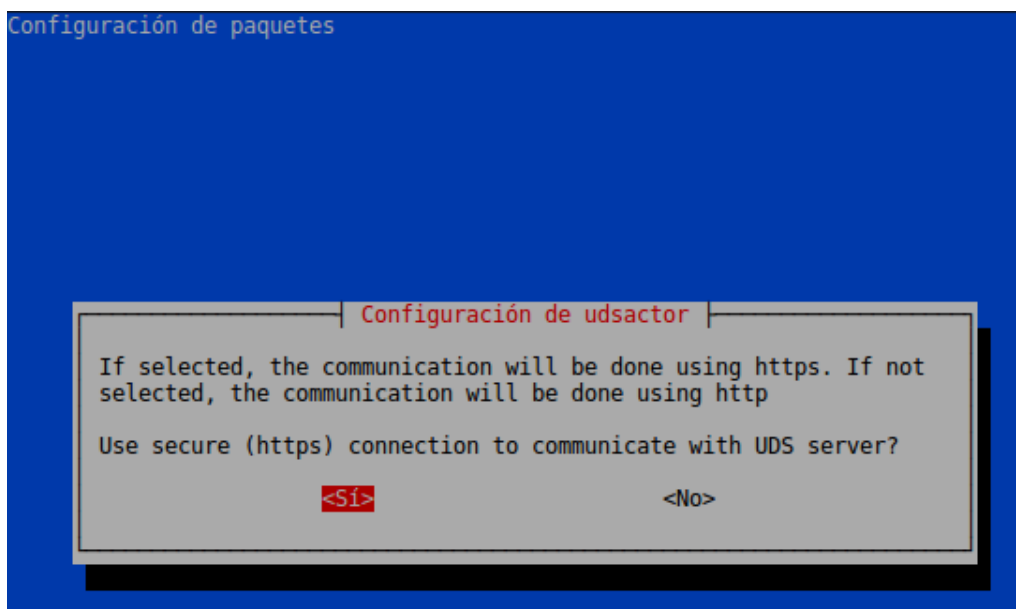



Once these dependencies are installed, the UDS Actor setup wizard will be launched automatically.

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



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



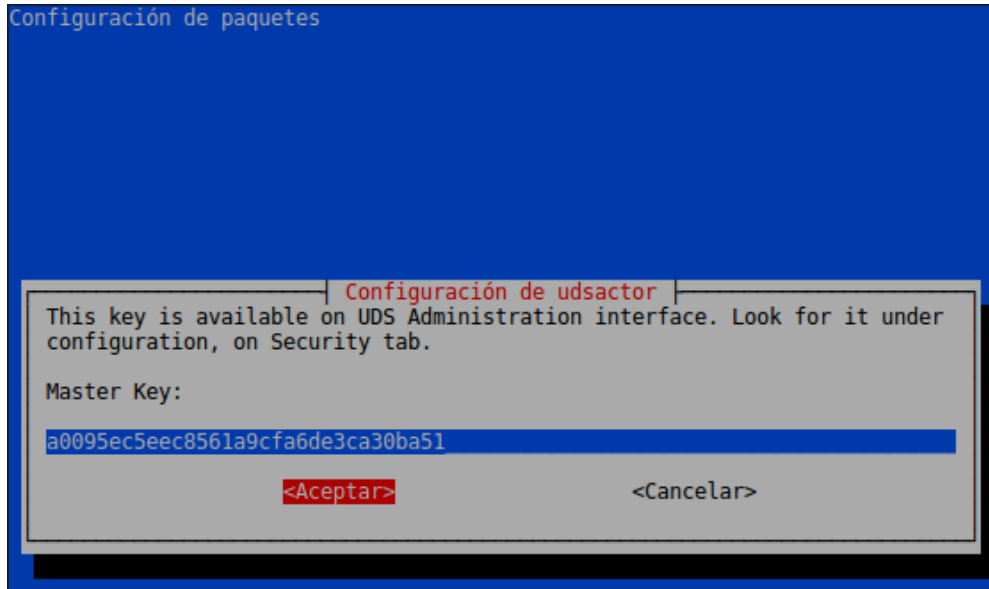


UDS Enterprise – Preparing Templates

Xubuntu 16.04 + X2Go + UDS Actor

www.udsenderprise.com

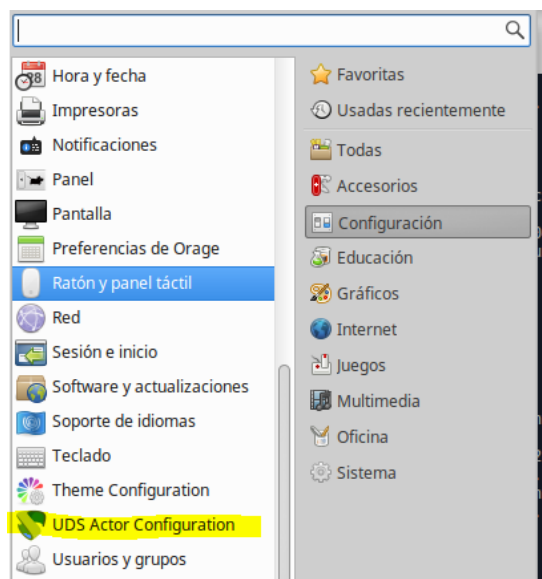
We add the "Master key" that we obtain by accessing the UDS Server web page (entering control panel, Tools menu - Configuration, tab "Security").



We have finished configuring the UDS Actor.

```
Configurando udsactor (2.1.0) ...
Configurando qt-at-spi:amd64 (0.4.0-3) ...
Procesando disparadores para libc-bin (2.23-0ubuntu9) ...
Procesando disparadores para systemd (229-4ubuntu17) ...
Procesando disparadores para ureadahead (0.100.0-19) ...
uds@Desktop:~/Descargas$
```

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:

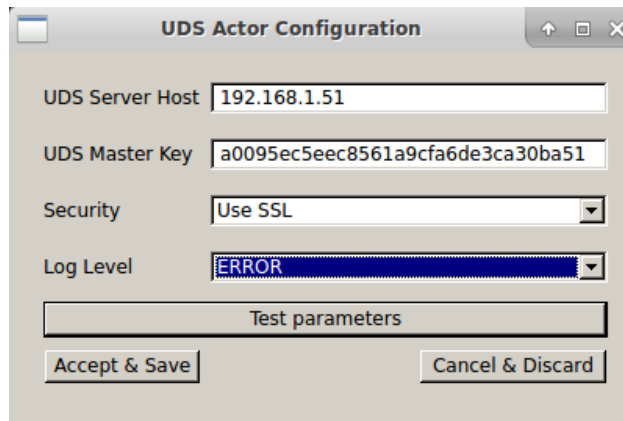




UDS Enterprise – Preparing Templates

Xubuntu 16.04 + X2Go + UDS Actor

www.udsenderprise.com



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
```



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 or send us an email to info@udsenderprise.com