Setup xrdp as a Windows Terminal server (on Ubuntu 18.04 update)

Source

To install xRDP, simply open a Terminal console. In the Terminal console, Browse to the location where the script has been stored and then issue the one of the following command based your requirements

- ./install-xrdp-2.2.sh

Use this command to install xrdp version 0.9.8. No additional features such as sound redirection and GDM lock screen fix will be implemented

- ./install-xrdp-2.2.sh -g yes

Use this command to install xrdp version 0.9.8. and to enabe the GDM Lock screen fix

- ./install-xrdp-2.2.sh -s yes

Use this command to install xrdp version 0.9.8. and to enabe sound redirection additionally

- ./install-xrdp-2.2.sh -s yes -g yes

Use this command to install xrdp version 0.9.8. and to enabe all the additional features i.e. sound redirection and GDM lock screen fix

install-xrdp-2.2.sh

```
#!/bin/bash
#########################################################################
##############################
# Script_Name : install-xrdp-2.2.sh
# Description : Perform a custom installation of xrdp
# on ubuntu 18.04 and later
# Date : October 2018
# written by : Griffon
# Web Site :http://www.c-nergy.be - http://www.c-nergy.be/blog
# Version : 2.2
# History : 2.2 - Add Support for Ubuntu 18.10 and Yaru Theme
#         : 2.1 - Add logic to enable sound redirection for U18.04
#               - re-write code logic to include functions
#               - Removed support for Ubuntu 17.10 as reached end of
support
#         : 2.0 - Initial Version for Ubuntu system with Gnome Desktop
#         : 1.x - Script for Ubuntu 16.04 or later
# Disclaimer : Script provided AS IS. Use it at your own risk....
#########################################################################
##############################
```

```
#----------------------------------------------------#
#  Detecting if Parameters passed to script ....
#----------------------------------------------------#

while getopts g:s: option
do
 case "${option}"
 in
 g) fixGDM=${OPTARG};;
 s) fixSound=${OPTARG};;
 esac
done

#----------------------------------------------------#
# Script Version information Displayed               #
#----------------------------------------------------#

echo
/bin/echo -e "\e[1;36m   !-----------------------------------------
----------------!\e[0m"
/bin/echo -e "\e[1;36m   !   Custom XRDP Installation Script  - Ver 2.2
!\e[0m"
/bin/echo -e "\e[1;36m   !   Written by Griffon - October 2018 -
www.c-nergy.be        !\e[0m"
/bin/echo -e "\e[1;36m   !-----------------------------------------
----------------!\e[0m"
echo

#--------------------------------------------------------------------
----#
# ----------------------Function Section - DO NOT MODIFY ------------
----#
#--------------------------------------------------------------------
----#

#----------------------------------------------------#
# Function 1 - Install Prereqs...
#----------------------------------------------------#

install_prereqs() {
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Installing PreReqs packages..Proceeding.
! \e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo

sudo apt-get -y install libx11-dev libxfixes-dev libssl-dev libpam0g-
```

```
dev libtool libjpeg-dev flex bison gettext autoconf libxml-parser-perl
libfuse-dev xsltproc libxrandr-dev python-libxml2 nasm xserver-xorg-dev
fuse pkg-config git intltool xserver-xorg-core

}

#-----------------------------------------------------#
# Function 2 - Download XRDP Binaries...
#-----------------------------------------------------#
get_binaries() {

echo
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Download xRDP Binaries.......Proceeding.
! \e[0m"
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
echo

cd ~/Downloads

## -- Download the xrdp latest files
echo
/bin/echo -e "\e[1;32m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;32m   !  Preparing download xrdp package
!\e[0m"
/bin/echo -e "\e[1;32m   !---------------------------------------------
!\e[0m"
echo
git clone https://github.com/neutrinolabs/xrdp.git
echo
/bin/echo -e "\e[1;32m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;32m   !  Preparing download xorgxrdp package
!\e[0m"
/bin/echo -e "\e[1;32m   !---------------------------------------------
!\e[0m"
echo
git clone https://github.com/neutrinolabs/xorgxrdp.git

}

#-----------------------------------------------------#
# Function 3 - compiling xrdp...
#-----------------------------------------------------#

compile_source() {

# -- Compiling xrdp package first
```

```
echo
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Compile xRDP packages .......Proceeding.
! \e[0m"
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
echo


cd ~/Downloads/xrdp
sudo ./bootstrap
sudo ./configure --enable-fuse --enable-jpeg
sudo make

#-- check if no error during compilation

if [ $? -eq 0 ]
then
/bin/echo -e "\e[1;33m   |-| Make Operation Completed successfully
\e[0m"

else
echo
echo
/bin/echo -e "\e[1;31m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;31m   !   Error while Executing make
!\e[0m"
/bin/echo -e "\e[1;31m   !   The Script is exiting....
!\e[0m"
/bin/echo -e "\e[1;31m   !---------------------------------------------
!\e[0m"
exit
fi
sudo make install

echo
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Compile xorgxrdp packages....Proceeding.
! \e[0m"
/bin/echo -e "\e[1;33m   !---------------------------------------------
!\e[0m"
echo

cd ~/Downloads/xorgxrdp
sudo ./bootstrap
sudo ./configure
sudo make
```

```
# check if no error during compilation
if [ $? -eq 0 ]
then
echo
/bin/echo -e "\e[1;33m   |-| Make Operation Completed successfully
\e[0m"
echo
else
echo
/bin/echo -e "\e[1;31m   !-------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;31m   !   Error while Executing make
!\e[0m"
/bin/echo -e "\e[1;31m   !   The Script is exiting....
!\e[0m"
/bin/echo -e "\e[1;31m   !-------------------------------------------
!\e[0m"
exit
fi
sudo make install

}

#-------------------------------------------------#
# Function 5 - create services ....
#-------------------------------------------------#

enable_service() {
echo
/bin/echo -e "\e[1;33m   !-------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Creating xRDP services.......Proceeding.
! \e[0m"
/bin/echo -e "\e[1;33m   !-------------------------------------------
!\e[0m"
echo

sudo systemctl daemon-reload
sudo systemctl enable xrdp.service
sudo systemctl enable xrdp-sesman.service
sudo systemctl start xrdp

}

#-------------------------------------------------#
# Function 6 - Install Gnome Tweak Tool....
#-------------------------------------------------#

install_tweak()
{
```

```
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Installing Gnome Tweak...Proceeding...
! \e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo
sudo apt-get install gnome-tweak-tool -y
}

#-------------------------------------------------------------------#
# Fucntion 7 - Allow console Access ....(seems optional in u18.04)
#-------------------------------------------------------------------#

allow_console()
{
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Granting Console Access...Proceeding...
! \e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo
sudo sed -i 's/allowed_users=console/allowed_users=anybody/'
/etc/X11/Xwrapper.config
}

#-------------------------------------------------#
# Function 8 - create policies exceptions ....
#-------------------------------------------------#

create_polkit()
{
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Creating Polkit File...Proceeding...
! \e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo

sudo bash -c "cat >/etc/polkit-1/localauthority/50-local.d/45-
allow.colord.pkla" <<EOF
[Allow Colord all Users]
Identity=unix-user:*
Action=org.freedesktop.color-manager.create-
device;org.freedesktop.color-manager.create-
profile;org.freedesktop.color-manager.delete-
```

```
device;org.freedesktop.color-manager.delete-
profile;org.freedesktop.color-manager.modify-
device;org.freedesktop.color-manager.modify-profile
ResultAny=no
ResultInactive=no
ResultActive=yes
EOF

}

#------------------------------------------------#
# Function 9 - Fixing Theme and Extensions ....
#------------------------------------------------#

fix_theme()
{
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Fix Theme and extensions...Proceeding...
!\e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo

#Check if script has already run....
if grep -xq "#fixGDM-by-Griffon" /etc/xrdp/startwm.sh; then
 echo "Skip theme fixing as script has run at least once..."
else
#Set xRDP session Theme to Ambiance and Icon to Humanity if Ubuntu
18.04.x
if  [[ "$version" = *"Ubuntu 18.04"* ]];
then
sudo sed -i.bak "4 a #fixGDM-by-Griffon\ngnome-shell-extension-tool -e
ubuntu-appindicators@ubuntu.com\ngnome-shell-extension-tool -e ubuntu-
dock@ubuntu.com\n\nif [ -f ~/.xrdp-fix-theme.txt ]; then\necho 'no
action required'\nelse\ngsettings set org.gnome.desktop.interface gtk-
theme 'Ambiance'\ngsettings set org.gnome.desktop.interface icon-theme
'Humanity'\necho 'check file for xrdp theme fix' >~/.xrdp-fix-
theme.txt\nfi\n" /etc/xrdp/startwm.sh
#Set xRDP session Theme to Yaru and Icon to Suru if Ubuntu 18.10.x
elif [[ "$version" = *"Ubuntu 18.10"* ]];
then
sudo sed -i.bak "4 a #fixGDM-by-Griffon\ngnome-shell-extension-tool -e
ubuntu-appindicators@ubuntu.com\ngnome-shell-extension-tool -e ubuntu-
dock@ubuntu.com\n\nif [ -f ~/.xrdp-fix-theme.txt ]; then\necho 'no
action required'\nelse\ngsettings set org.gnome.desktop.interface gtk-
theme 'Yaru'\ngsettings set org.gnome.desktop.interface icon-theme
'Yaru'\necho 'check file for xrdp theme fix' >~/.xrdp-fix-
theme.txt\nfi\n" /etc/xrdp/startwm.sh
else
```

```
echo "Error Occured somewhere...Exiting..."
exit
fi

fi
echo
}

#-----------------------------------------------------#
# Function 10 - Fixing GDM - As an Option ....
#-----------------------------------------------------#
fix_gdm()
{
echo
/bin/echo -e "\e[1;33m   !-------------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Fix for GDM Lock Screen color...
!\e[0m"
/bin/echo -e "\e[1;33m   !-------------------------------------------
!\e[0m"
echo
# Step 1 - Install prereqs for compilation later on
sudo apt-get -y install libglib2.0-dev-bin
sudo apt-get -y install libxml2-utils

# extract gresource info (from url...)
workdir=${HOME}/shell-theme
if [ ! -d ${workdir}/theme ]; then
  mkdir -p ${workdir}/theme
  mkdir -p ${workdir}/theme/icons

fi
gst=/usr/share/gnome-shell/gnome-shell-theme.gresource

for r in `gresource list $gst`; do
        gresource extract $gst $r >$workdir/${r#\/org\/gnome\/shell/}
done

/bin/echo -e "\e[1;33m    |-| Creating XML File...   \e[0m"
# create the xml file
bash -c "cat >${workdir}/theme/gnome-shell-theme.gresource.xml" <<EOF
<?xml version="1.0" encoding="UTF-8"?>
<gresources>
  <gresource prefix="/org/gnome/shell/theme">
    <file>calendar-arrow-left.svg</file>
    <file>calendar-arrow-right.svg</file>
    <file>calendar-today.svg</file>
    <file>checkbox-focused.svg</file>
    <file>checkbox-off-focused.svg</file>
    <file>checkbox-off.svg</file>
    <file>checkbox.svg</file>
```

```
    <file>close-window.svg</file>
    <file>corner-ripple-ltr.png</file>
    <file>corner-ripple-rtl.png</file>
    <file>dash-placeholder.svg</file>
    <file>gnome-shell.css</file>
    <file>gnome-shell-high-contrast.css</file>
    <file>no-events.svg</file>
    <file>no-notifications.svg</file>
    <file>noise-texture.png</file>
    <file>page-indicator-active.svg</file>
    <file>page-indicator-inactive.svg</file>
    <file>page-indicator-checked.svg</file>
    <file>page-indicator-hover.svg</file>
    <file>process-working.svg</file>
    <file>toggle-off-us.svg</file>
    <file>toggle-off-intl.svg</file>
    <file>toggle-on-hc.svg</file>
    <file>toggle-on-us.svg</file>
    <file>toggle-on-intl.svg</file>
  </gresource>
</gresources>
EOF
cd ${workdir}/theme
/bin/echo -e "\e[1;33m    |-| Modify Css...   \e[0m"
sed -i -e 's/background: #2e3436/background: #2c00e1/g' ~/shell-
theme/theme/gnome-shell.css

##Delete the file noise-texture.png (grey one)
rm ${workdir}/theme/noise-texture.png

/bin/echo -e "\e[1;33m    |-| Download Purple image file...   \e[0m"
#Download the noise-texture.png with purple background
wget http://www.c-nergy.be/downloads/noise-texture.png

/bin/echo -e "\e[1;33m    |-| Compile Resource File...   \e[0m"
#Compile file and copy to correct location....
cd ${workdir}/theme
glib-compile-resources gnome-shell-theme.gresource.xml

/bin/echo -e "\e[1;33m    |-| Copy file to target location...   \e[0m"

# make a backup of the file and copy the file....
sudo cp /usr/share/gnome-shell/gnome-shell-theme.gresource
/usr/share/gnome-shell/gnome-shell-theme.gresource.bak
sudo cp ${workdir}/theme/gnome-shell-theme.gresource /usr/share/gnome-
shell/gnome-shell-theme.gresource
echo
}

#-------------------------------------------------#
# Function 11 - Enable Sound Redirection ....
```

```
#-------------------------------------------------#

enable_sound()
{
echo
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
/bin/echo -e "\e[1;33m   !   Enabling Sound Redirection...
!\e[0m"
/bin/echo -e "\e[1;33m   !-----------------------------------------
!\e[0m"
echo

# Step 1 - Install xrdp-pulseaudio-installer package
sudo apt-get install xrdp-pulseaudio-installer  -y

# Step 2 - Enable Source Code Repository
sudo apt-add-repository -s 'deb http://be.archive.ubuntu.com/ubuntu/
'$codename' main restricted'
sudo apt-add-repository -s 'deb http://be.archive.ubuntu.com/ubuntu/
'$codename' restricted universe main multiverse'
sudo apt-add-repository -s 'deb http://be.archive.ubuntu.com/ubuntu/
'$codename'-updates restricted universe main multiverse'
sudo apt-add-repository -s 'deb http://be.archive.ubuntu.com/ubuntu/
'$codename'-backports main restricted universe multiverse'
sudo apt-add-repository -s 'deb http://be.archive.ubuntu.com/ubuntu/
'$codename'-security main restricted universe main multiverse'
sudo apt-get update

# Step 3 - Download pulseaudio source in /tmp directory
cd /tmp
sudo apt source pulseaudio

# Step 4 - Compile
pulsever=$(pulseaudio --version | awk '{print $2}')

cd /tmp/pulseaudio-$pulsever
sudo ./configure

# Step 5 - Create xrdp sound modules

cd /usr/src/xrdp-pulseaudio-installer
sudo make PULSE_DIR="/tmp/pulseaudio-$pulsever"

# Step 6 - copy files to correct location

sudo install -t "/var/lib/xrdp-pulseaudio-installer" -D -m 644 *.so
sudo install -t "/usr/lib/pulse-$pulsever/modules" -D -m 644 *.so
echo

}
```

```
#-------------------------------------------------------------------------
----#
# ----------------------END Function Section             -------------
----#
#-------------------------------------------------------------------------
----#


#-------------------------------------------------------------------------
----#
#------------                  MAIN SCRIPT SECTION       ---------------
----#
#-------------------------------------------------------------------------
----#

#-----------------------------------------------------#
# Step 0 - Try to Detect Ubuntu Version....
#-----------------------------------------------------#

version=$(lsb_release -sd)
codename=$(lsb_release -sc)

echo
/bin/echo -e "\e[1;33m   |-| Detecting Ubuntu version        \e[0m"

if  [[ "$version" = *"Ubuntu 18.04"* ]];
then
/bin/echo -e "\e[1;32m       |-| Ubuntu Version : $version\e[0m"
echo
elif [[ "$version" = *"Ubuntu 18.10"* ]];
then
/bin/echo -e "\e[1;32m       |-| Ubuntu Version : $version\e[0m"
echo
else
/bin/echo -e "\e[1;31m  !-----------------------------------------------
--------------!\e[0m"
/bin/echo -e "\e[1;31m  ! Your system is not running Ubuntu 18.04
Edition and later  !\e[0m"
/bin/echo -e "\e[1;31m  ! The script has been tested only on Ubuntu
18.04 and later  !\e[0m"
/bin/echo -e "\e[1;31m  ! The script is exiting...
!\e[0m"
/bin/echo -e "\e[1;31m  !-----------------------------------------------
--------------!\e[0m"
echo
exit
fi
```

```
/bin/echo -e "\e[1;33m   |-| Detecting Parameters        \e[0m"


#Detect if argument passed
if [ "$fixSound" = "yes" ];
then
/bin/echo -e "\e[1;32m      |-| Sound Redirection Option...:
[YES]\e[0m"
else
/bin/echo -e "\e[1;32m      |-| Sound Redirection Option...:
[NO]\e[0m"
fi

if [ "$fixGDM" = "yes" ];
then
/bin/echo -e "\e[1;32m      |-| gdm fix Option.............:
[YES]\e[0m"
else
/bin/echo -e "\e[1;32m      |-| gdm fix Option.............:
[NO]\e[0m"
fi
echo

#-------------------------------------------------------------#
# Step 1 - Executing the installation & config tasks .... #
#-------------------------------------------------------------#

echo
/bin/echo -e "\e[1;36m   !-----------------------------------------
----------------!\e[0m"
/bin/echo -e "\e[1;36m   !   Installation Process starting....
!\e[0m"
/bin/echo -e "\e[1;36m   !-----------------------------------------
----------------!\e[0m"
echo
/bin/echo -e "\e[1;33m   |-| Proceed with installation.....
\e[0m"
echo

install_prereqs
get_binaries
compile_source
enable_service
install_tweak
allow_console
create_polkit
fix_theme


if [ "$fixGDM" = "yes" ];
then
```

```
fix_gdm
fi

if [ "$fixSound" = "yes" ];
then
enable_sound
fi


#-------------------------------------------------#
# Step 2 - Credits ....
#-------------------------------------------------#
echo
/bin/echo -e "\e[1;36m#-------------------------------------------------
----------------------#\e[0m"
/bin/echo -e "\e[1;36m# Installation Completed
#\e[0m"
/bin/echo -e "\e[1;36m# Please test your xRDP configuration.A Reboot
Might be required...     #\e[0m"
/bin/echo -e "\e[1;36m# Written by Griffon - October 2018 - Ver 2.2 -
Std-Xrdp-Install-2.2.sh #\e[0m"
/bin/echo -e "\e[1;36m#-------------------------------------------------
----------------------#\e[0m"
echo
```

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Permanent link:
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