# UDS Enterprise 4.0 – Preparing Templates
# Windows 10 + RDP + UDS Actor 4.0

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## Introduction

This document shows how to configure a Windows 10 OS virtual machine to be used as a template with UDS Enterprise 4.0.

During the procedure, the Windows 10 OS installation process will be shown, how to enable the RDP protocol and the configuration of the UDS Actor (agent in charge of 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, you will need the following:

- **OS image**

  Use a Microsoft Windows 10 image.

- **RDP**

  The protocol used to connect to the virtual desktops from UDS Enterprise will be RDP. It will allow you, in addition to making the remote connection, to redirect disk drives/storage drives, local printers, smart cards, various monitors...

  This protocol already comes by default in this OS and you will only have to enable it to be used by UDS Enterprise.

- **UDS Actor**

  You will need to have the latest stable version of the UDS Actor to be in charge of the reconfiguration of all the virtual desktops generated automatically by the UDS Server.

  To download the UDS Actor you will need to validate in the UDS login window with a user with administrator permissions. Display the user menu and access downloads. In this window, download the Actor for Windows machines (.exe).

**Downloads**

▪ **Various**

OS update is recommended once the installation is complete. After this update, automatic updates must be disabled to prevent the generated virtual desktops from executing this process. This task is recommended especially with the use of non-persistent desktops.

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

The template should never be added to an Active Directory domain. In case you need virtual desktops included in an AD domain, the configuration will be done from the UDS Server control panel (OS Manager).

The auto-login of a user cannot be configured in the template. The credentials must always be requested from a user (there are different ways to authenticate in virtual desktops, all of them available in the service transport).

## Installation and configuration

### 1. Microsoft Windows 10

Proceed to the installation of the Windows 10 OS:
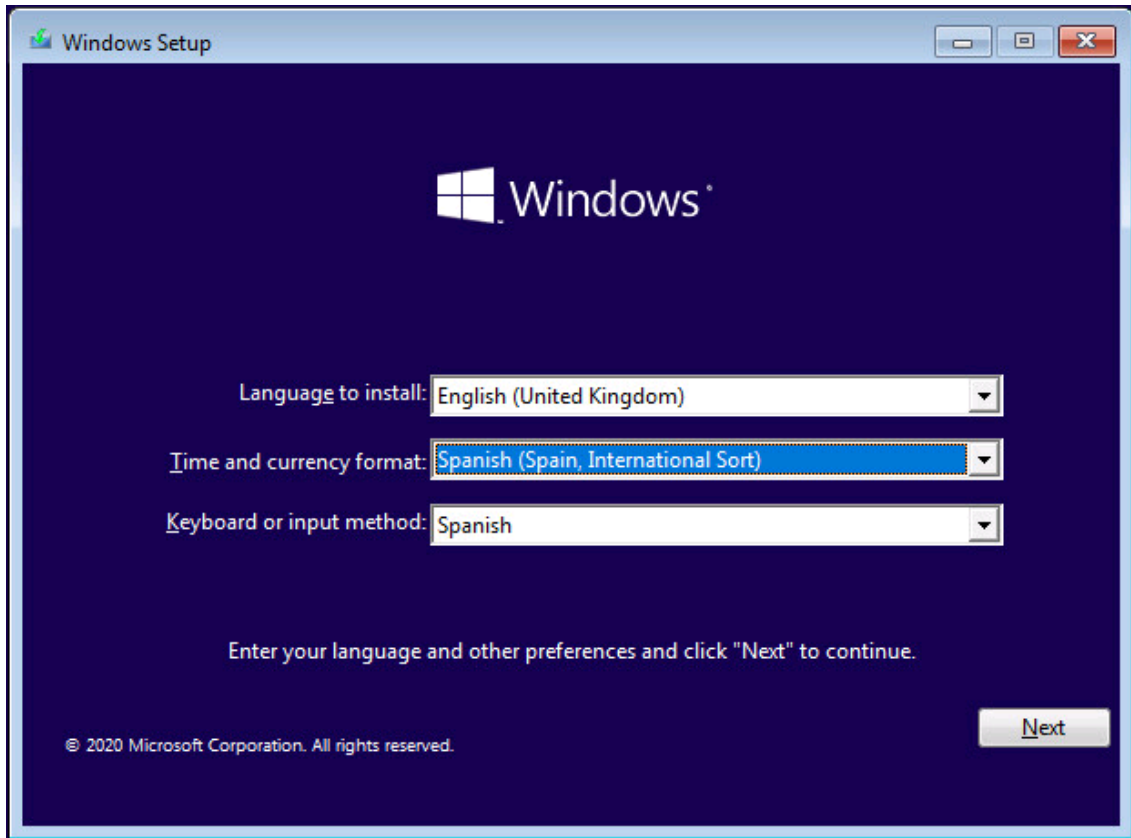


The installation will be carried out with the default values and indicating some resources (disk, vRAM and vCPUs) according to the use that you are going to make of the desktop.

Continue with all the steps of the default installation until it is finished, and you have the virtual machine ready to start and install the UDS Actor.

Once the OS installation is finished, it is important to install the virtual machine drivers corresponding to the virtualization platform. In this example, install the "**VMware Tools**", since the machine will run on the VMware vSphere virtual platform.
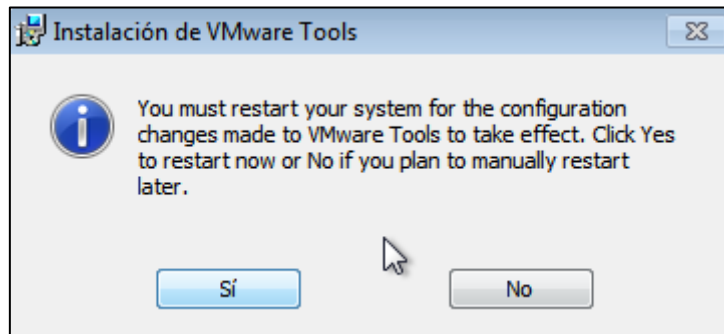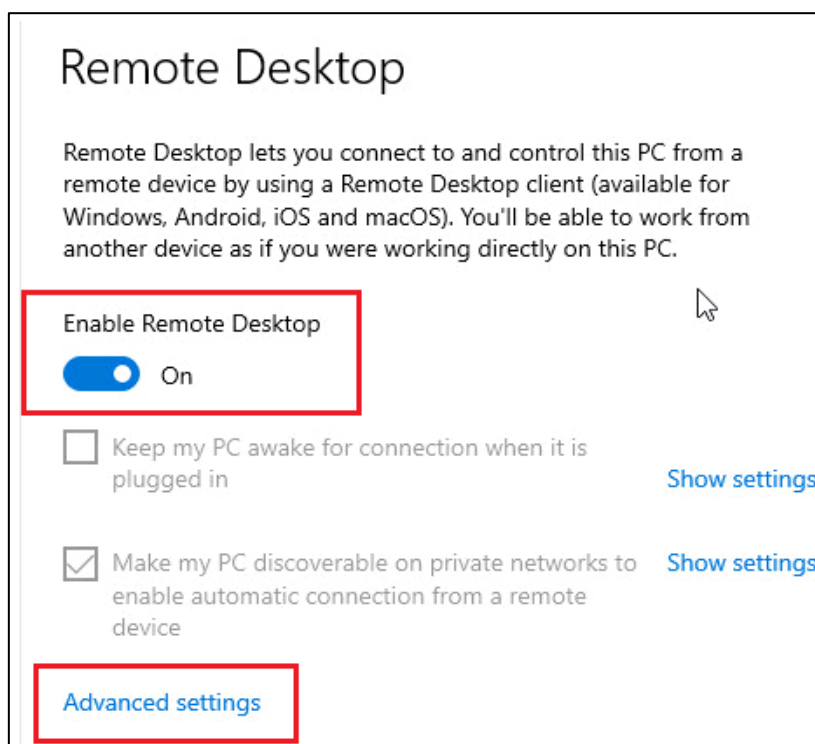


After installing the VMware Tools and restarting the VM, you can now enable the RDP connection protocol and configure the UDS Actor.
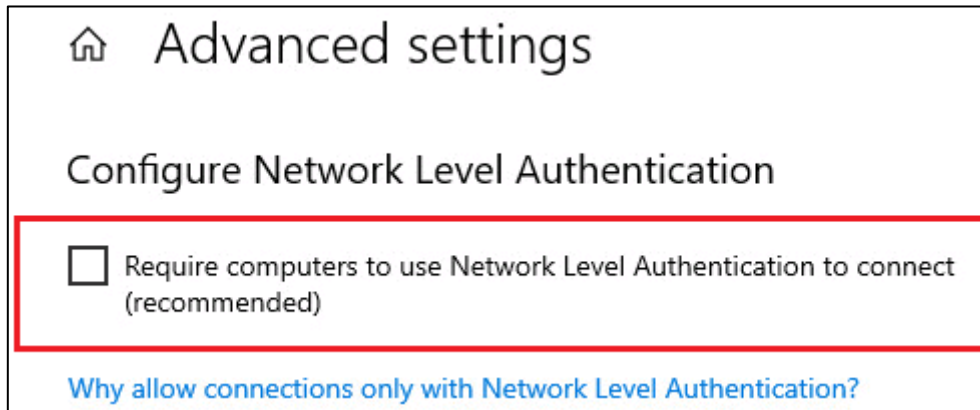
## 2. RDP

To make the connection to the virtual desktop, you must enable the remote desktop connection (RDP) in the template.

**Control Panel – System – Remote Desktop**

Enable: "*Enable Remote Desktop*" and in the advanced options we will review the section: "*Require computers to use Network Level Authentication to connect*".



If we enable the option "*Require computers to use Network Level Authentication to connect*", we will have to send the machine valid credentials, otherwise, the connection will not be made satisfactorily.

**If we are also going to use a connection via HTML5, in some cases it will be necessary to modify the following section of the registry:**

https://www2.udsenterprise.com/en/wiki/Troubleshooting/Windows/Windows10-HTML5/

You must also ensure that the firewall does not block connections to port 3389.

Once the configuration is finished, test the connection via RDP to the virtual machine to verify its correct operation.
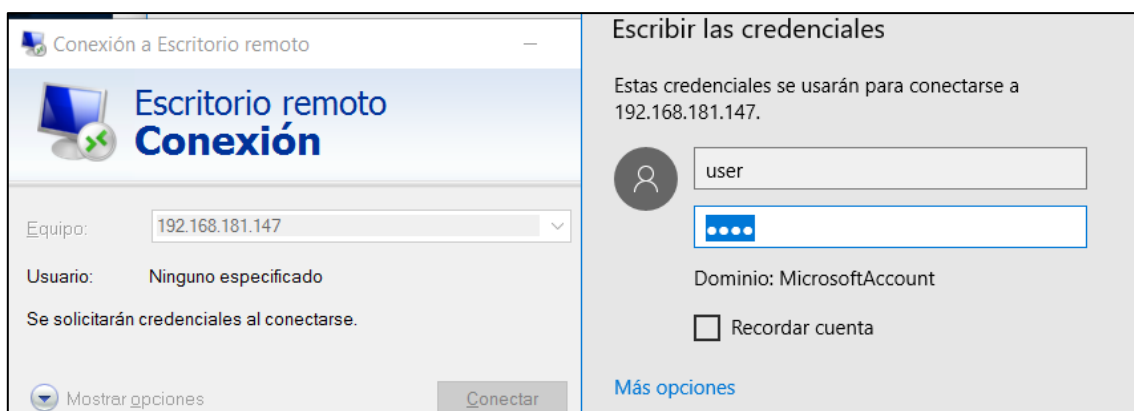


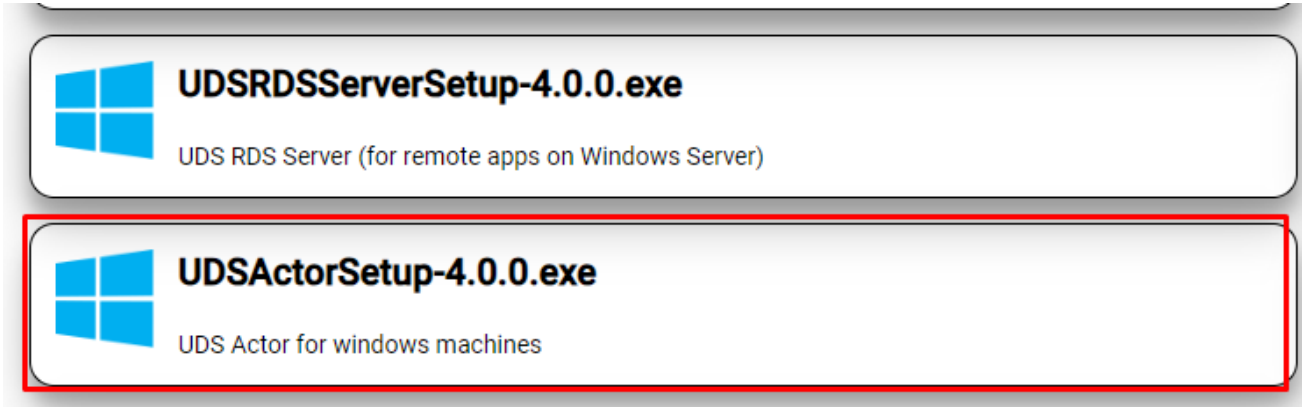Once verified, you can proceed to the installation of the UDS Actor.

## 3. UDS Actor

Access the UDS server and log in with a user **with administrator permissions**. In the user menu, select "**Downloads**" to access the UDS Actor's downloads.
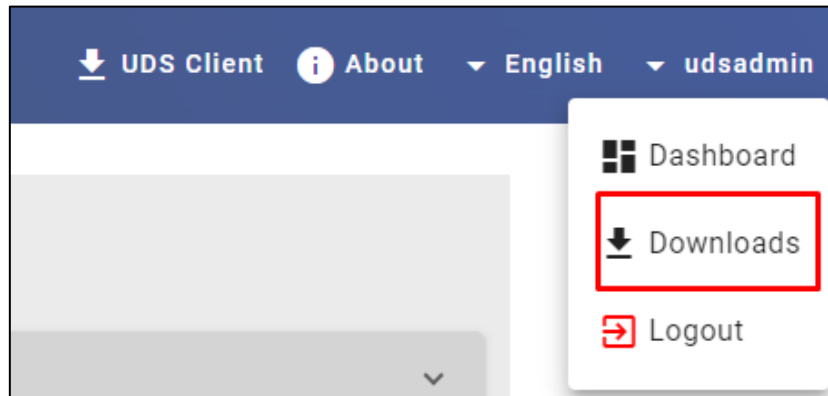


Download the **UDS Actor for Windows machines** corresponding to machines with Windows OS:

Once the Actor is downloaded, start the installation.
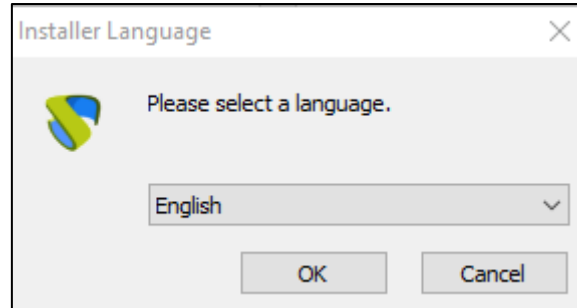




Accept the license agreement:

Select the installation path of the UDS Actor:



Click on "**Install**" to proceed with the installation:



Once the installation is done, proceed to the configuration of the UDS Actor:

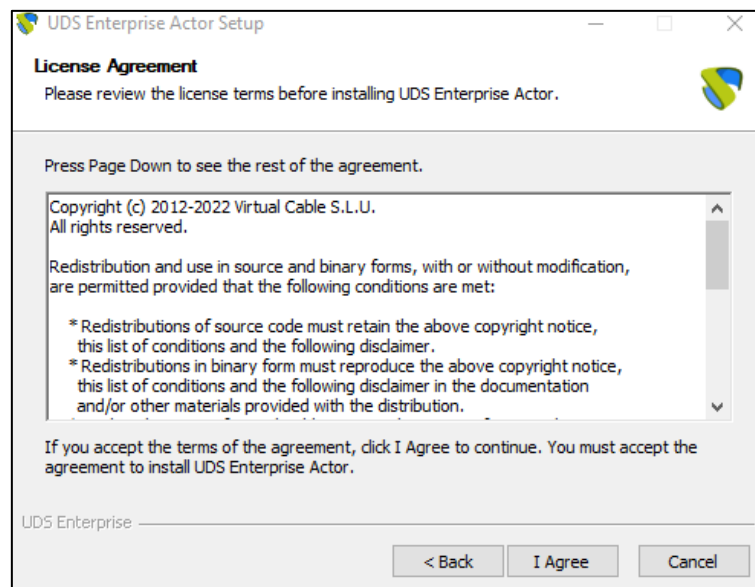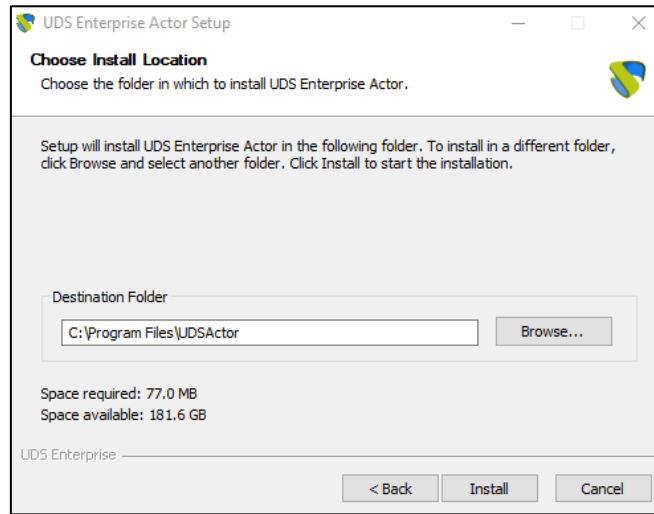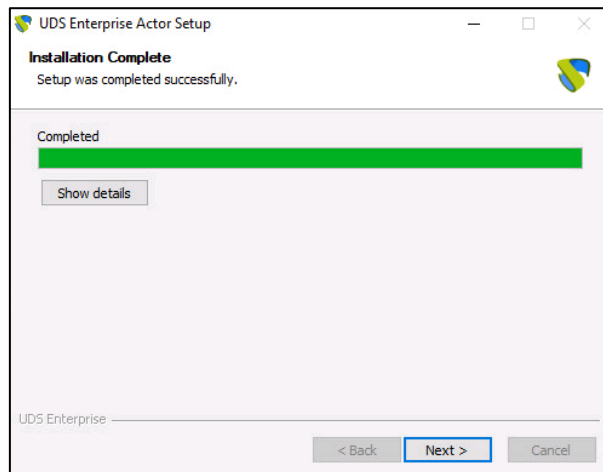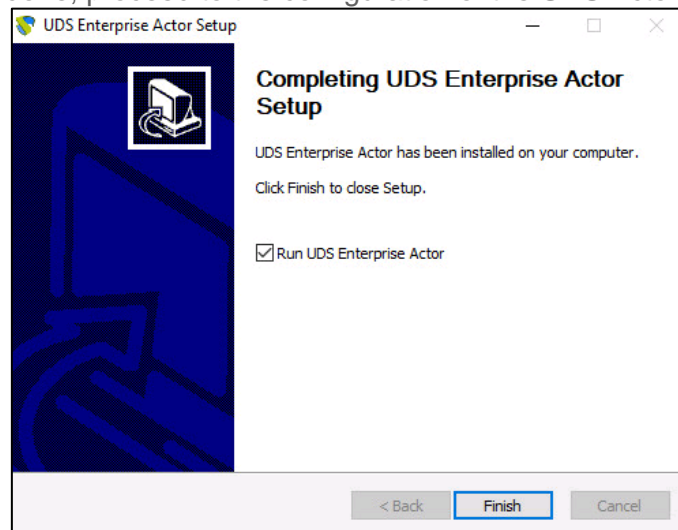In the **UDS Server** tab, you will register the Actor with the UDS instance indicating the following parameters:

**SSL Validation**: Type of security with which communication with the UDS server will be carried out.
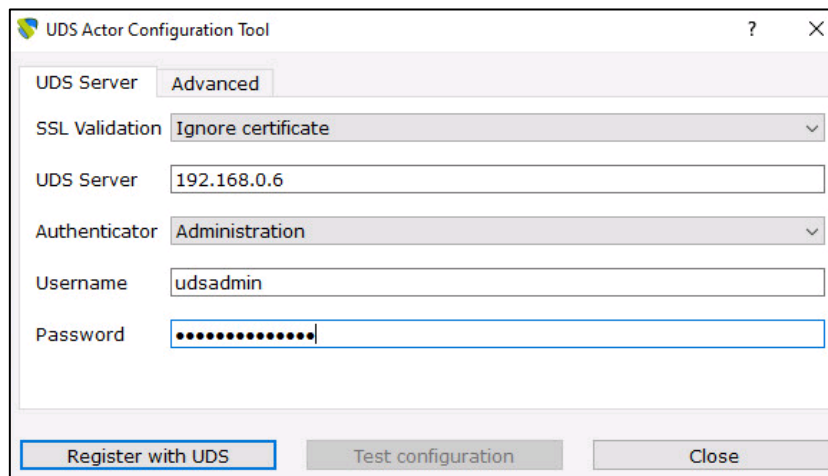
**UDS Server**: Name or IP address of the UDS server.

**Authenticator**: Authenticator to which the administrator user indicated to register the UDS Actor belongs.
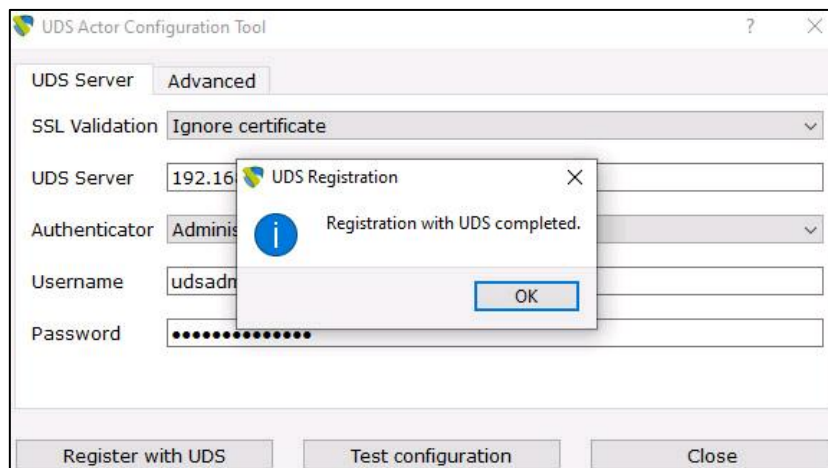
The communication with the UDS server must be carried out correctly so that the different authenticators are displayed. At least one must be registered in the UDS administration (the authenticator "**Administration**" corresponds to the super-user created in the UDS server configuration wizard).

**Username**: Username with administration permissions in the UDS environment (it must belong to the authenticator selected above).

**Password**: Password of the administrator user introduced.



Once these data have been indicated, click on "**Register with UDS**":

You can also carry out a test by clicking on "**Test configuration**" to verify the correct connection with the UDS server at any time:



In the "**Advanced**" tab you can indicate the following advanced parameters:

**Preconnect**: script that will be executed just before allowing the user to connect to the virtual desktop.

UDS will automatically pass the following parameters, which can be used in the script: username, protocol (rdp, nx, pcoip ...), IP (IP that UDS has recognized in the client -SRC IP), hostname (SRC Host).
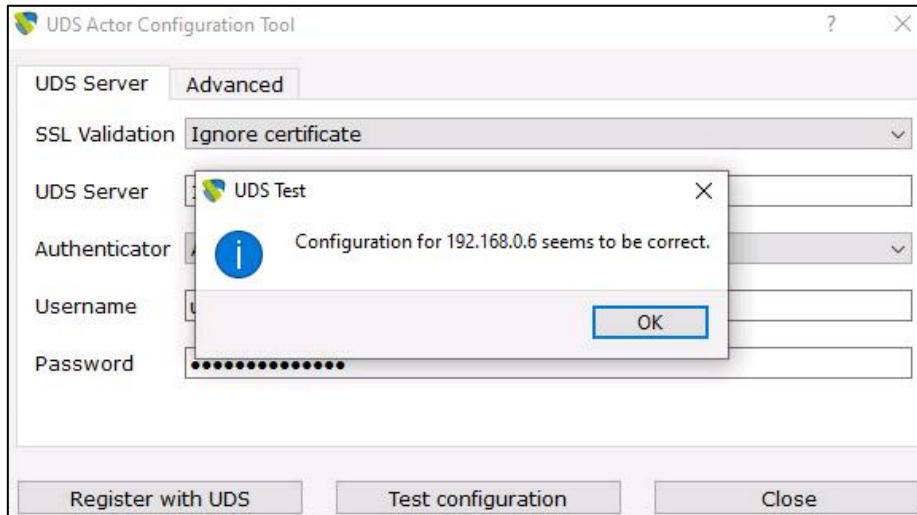
**Runonce**: script that is executed only once and before the UDS Actor applies its configuration. After its execution, it is deleted from the configuration. Parameters can be passed to it directly.

It is necessary that the script that is run ends by restarting the virtual desktop. Otherwise, the desktop will never apply the Actor configuration, preventing reaching the "*Valid*" status in the UDS administration.

**Postconfig**: script that is executed when the UDS Actor has finished its configuration. Parameters can be passed to it directly.

The script runs only once, but unlike the "**Runonce**" mode you do not need to restart the virtual desktop. This script is useful to add some element of its own to the configuration carried out by the UDS Actor, such as copying files from the local network, executing configurations...

**Log Level**: types of records that will be displayed in the UDS Actor log files. These log files (udsactor.log) will be located in the paths: *%temp%* (path of the user's temporary files) and *C:\Windows\Temp* (path of the temporary OS files).
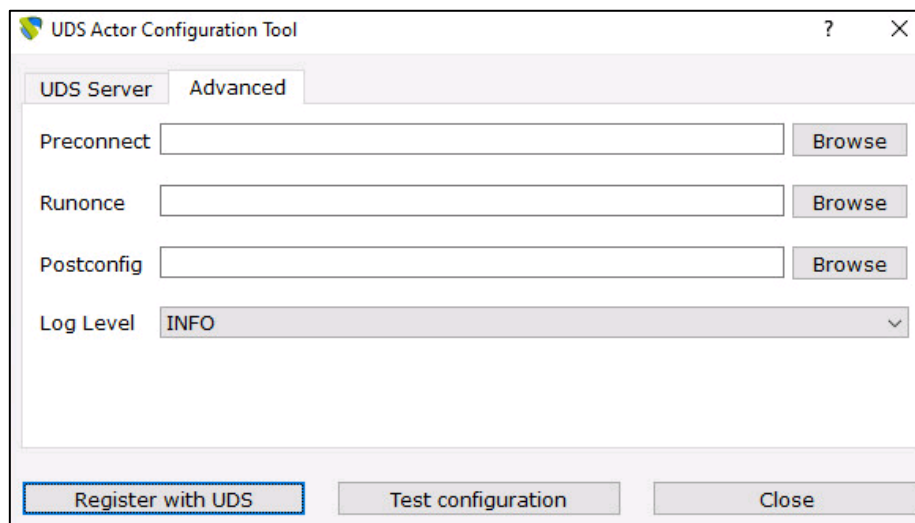
It is very important to bear in mind that to apply the values of the "**Advanced**" tab, it will always be necessary to carry out the registration process afterwards. If you add any script or modify the log level and you have not registered the Actor again, they will not apply.

Once the installation and configuration of the UDS Actor is done, the template machine (gold image) can now be turned off and will be available to be used by UDS to auto-generate virtual desktops.ç

## Summary

Once all these steps have been completed, you will have your Windows 10 OS template available to use with UDS Enterprise using the RDP connection protocol.

It is recommended to perform certain optimization tasks in the template before proceeding to its publication, such as:

- Disable unnecessary services (also during VM startup).
- Disable automatic Windows updates, antivirus, etc...
- Disable computer sleep mode due to inactivity.
- In case of using roaming AD profiles, carry out a personalized configuration (redirection of folders, disk quotas, etc…).

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

- From Windows computers with the client: Remote Desktop.
- From Linux computers with the client: FreeRDP.
- From macOS computers with clients: FreeRDP and Microsoft Remote Desktop.

# UDS ENTERPRISE, THE SOFTWARE VDI OF VIRTUAL CABLE

## About UDS Enterprise

UDS Enterprise is a new software concept for creating a **fully customized virtualization** platform **for the workplace**. It provides **secure 24x7 access** from **any location and device** to all applications and software of an organization or educational center.

It allows you to combine Windows and Linux **desktop and application virtualization** in a single console, as well **as remote access** to Windows, Linux and macOS computers. Its Open Source base guarantees **compatibility with any third-party technology**. It can be deployed on premise, in a public, private, hybrid or **multicloud**. You can even combine several environments at the same time and perform automatic and **intelligent overflows** to optimize performance and efficiency. All with a **single subscription**.

## About Virtual Cable

Virtual Cable is a company specialized in the digital **transformation of the workplace**. The company develops, supports and markets UDS Enterprise. It has recently been recognized as an **IDC Innovator in Virtual Client Computing** worldwide. Its team of experts has designed digital **workplace solutions** (**VDI, vApp and remote access to physical computers**) tailored to each sector to provide a unique user experience fully adapted to the needs of each user profile. Virtual Cable professionals have **more than 30 years** of experience in IT and software development and more than 15 years in virtualization technologies. **Everyday millions of Windows and Linux virtual desktops** are deployed with UDS Enterprise around the world.