

Windows Application Virtualization with UDS Enterprise 4.0



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VIRTUAL CABLE

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1. Introduction

The UDS Enterprise connection broker allows the deployment and management of Windows virtual application sessions through the Microsoft Remote Desktop Services (RDS) service. These virtual applications will be assigned to user groups so that they are accessible by users.

Access to remote application sessions can be done through Windows and Linux OS with the installation of the "**UDS Client**" component or through any other OS (Android, iOS, ChromeOS, etc...) who has a web browser with HTML5 connection mode.

The applications will run on Windows application servers, allowing several of them to be grouped together and run in high availability. These application servers must have the RDS role enabled and configured in order to be integrated with UDS.

The UDSRDSServer component (server agent used to manage vAPPs and control user sessions on RDS servers) must be installed on the application servers, this will allow the call to the applications and notify the user access and exit. In environments where there are several application servers, it will be possible to activate high availability and the load threshold can be indicated to obtain an optimal load balance of the resources of the servers.

For the correct operation and integration of UDS Enterprise with RDS servers, it is necessary to perform a series of tasks that are detailed in this document.

2. Required Items

To configure the different elements that will make up the vApp environment with UDS Enterprise to serve Windows virtual applications, we will need:

2.1. RDS Application Servers

The Windows servers that will be responsible for providing the application sessions can be hosted on a virtualization platform or be physical servers. UDS Enterprise allows you to create groups of application servers.

Application servers must have the RDS feature enabled, which will allow virtual application sessions to be created. The servers must belong to an AD domain and have the applications that are going to be enabled to users installed and configured.

If you have a configuration with several application servers, all of them must have the applications installed. If you have different applications installed or are intended for different uses, it is recommended to make different groups of servers.

Application servers must have sufficient resources (vCPUs, vRAMs, and disks) to be able to run applications.

2.2. Windows OS supported

To deploy virtual applications, it will be necessary to use the following OS:

- Windows server 2016
- Windows server 2019
- Windows server 2022
- Windows server 2025

In this document we will use a Windows Server 2022 server, for the rest of the OS all the tasks to be performed will be the same.

2.3. UDS RDS Server

All application servers must have the UDS RDS Server agent installed and configured to facilitate access and control of the applications to users.

To download it, it is necessary to validate ourselves in the UDS Enterprise login portal with a user with administrator permissions. We will display the user menu and access the downloads. In this window we will download the UDS RDS Server for Windows machines.



NOTE: It is still possible to use the RDS Actor (RDSActorSetup-X.X.0.exe), but in future versions it will be discontinued.

2.4. Several

To carry out all the configuration on an RDS server, it will be necessary to have a domain user with administration permissions on the RDS server, in addition to an installed and configured UDS environment.

3. Application Server Configuration

Below are all the tasks required to be performed on the RDS application server.

3.1. Remote Desktop Service (RDS) Installation

The following requirements must be met:

- Have an updated Windows Server 2016, 2019, 2022 or 2025 OS.
- The server must have a fixed IP address.
- The server must be part of an Active Directory (AD) domain.

Once we have met the requirements, we move on to the installation by validating ourselves with a user with administration permissions on the server.

Access the "Server Manager" and click on "manage" on "Add Roles and Features".

| 📥 Server Manager | | | - 0 |
|------------------|-----------------------------|---------------------------------------|---------------------------|
| Server N | Manage Tools View Hel | | |
| 🔛 Dashboard | PROPERTIES For w2022rds1 | | Remove Roles and Features |
| Local Server | Computer name w2022rds1 | Last installed unda | Create Server Group |
| All Servers | Domain MVDI.local | Windows Update Last checked for ui | Server Manager Properties |

In the wizard we follow the following steps:

Type of Installation.



Type of deployment.

📥 Add Roles and Features Wizard

DESTINATION SERVER

No servers are selected

Select deployment type

Before You Begin

Remote Desktop Services can be configured across multiple servers or on one server.

Installation Type

Standard deployment

Deployment Type

eployment Scenario

Quick Start

A Quick Start allows you to deploy Remote Desktop Services on one server, and creates a collection and publishes RemoteApp programs.

A standard deployment allows you to deploy Remote Desktop Services across multiple servers.

Deployment scenario:

| 🔁 Add Roles and Features Wizard | - | | × |
|--|---------------------|--------------------------|-------------|
| Select deployment scenario Standar | DESTIN rd deploy | ATION SER yment selec | VER tted |
| Before You Begin Remote Desktop Services can be configured to allow users to connect to virtual des programs, and session-based desktops. Installation Type O Virtual machine-based desktop deployment | sktops, | RemoteA | pp |
| Deployment Scenario Virtual machine-based desktop deployment allows users to connect to virtual de that include published RemoteApp programs and virtual desktops. | esktop (| collection | s |
| RD Connection Broker RD Web Access RD Session Host (Session-based desktop deployment Session-based desktop deployment allows users to connect to session collection published RemoteApp programs and session-based desktops. | ns that i | include | |

The server where each element will be installed must be indicated:

Specify RD Connection Broker server

DESTINATION SERVER Standard deployment selected

| Before You Begin | Select the servers from the | e server pool on whi | he RD | Connection Broker role service. | |
|----------------------|-----------------------------|----------------------|-----------|---------------------------------|---------------|
| Installation Type | | | | | |
| Deployment Type | Server Pool | | | | Selected |
| Deployment Scenario | | |] | | Computer |
| Role Services | Filter: | | | | MVDLLOCAL (1) |
| RD Connection Broker | Name | IP Address | Operating | | w2022rds1 |
| RD Web Access | w2022rds1.MVDI.local | 192.168.11.44 | | | |
| RD Session Host | | | | | |
| Confirmation | | | | • | |
| | | | | | |

Specify RD Web Access server

DESTINATION SERVER Standard deployment selected

| Before You Begin Installation Type | Select a server from the ser Install the RD Web Acco | rver pool on which t ess role service on t | to install the he RD Conne | RD We | eb Access role service. Broker server | |
|---------------------------------------|---|---|-------------------------------|----------|--|--|
| Deployment Type | | | | | | |
| Deployment Scenario | Server Pool | | | Selected | | |
| Role Services | 511 | | | | Computer | |
| RD Connection Broker | Filter: | | | | MVDI.LOCAL (1) | |
| RD Web Access | Name | IP Address | Operating | | w2022rds1 | |
| RD Session Host | w2022rds1.MVDI.local | 192.168.11.44 | | | | |
| Confirmation | | | | | | |
| | | | | | | |

Specify RD Session Host servers

Before You Begin

Installation Type

DESTINATION SERVER Standard deployment selected

Select the servers from the server pool on which to install the RD Session Host role service. If more than one server is selected, the RD Session Host role service will be deployed on all of them.

| Deployment Type | Server Pool | | | Selected |
|----------------------|----------------------|---------------|-----------|------------------------------------|
| Role Services | Filter | | | Computer |
| RD Connection Broker | | | | MVDI.LOCAL (1) |
| RD Web Access | Name | IP Address | Operating | w2022rds1 |
| RD Session Host | w2022rds1.MVDI.local | 192.168.11.44 | | |
| Confirmation | | | | |
| Completion | | | | |

The installation is confirmed and it is deployed:

| Confirm selections | DESTINATION SERVER Standard deployment selected |
|--|---|
| Before You Begin Installation Type Deployment Type Deployment Scenario Role Services RD Connection Broker RD Web Access RD Session Host Confirmation Completion | To complete the installation, you must restart the RD Session Host servers. After installation is complete on the remote computers, the local computer will be restarted. RD Connection Broker (1 server selected) w2022rds1.MVDI.local RD Web Access (1 server selected) w2022rds1.MVDI.local RD Session Host (1 server selected) ▲ The following servers may restart after the role service is installed. w2022rds1.MVDI.local |
| | \checkmark Restart the destination server automatically if required |
| | < Previous Next > Deploy Cancel |

| View progress | | | | DESTIN/ Standard deploy | ATION SERVER ment selected |
|---------------------|---------------------------|----------------------------------|----------------|----------------------------|-------------------------------|
| | The selected Remote Deskt | op Services role services are be | ing installed. | | |
| Installation Type | Server | Progress | | Status | |
| Deployment Type | RD Connection Broker ro | le service | | | |
| Deployment Scenario | w2022rds1.MVDI.local | | In Prog | ress | |
| | | | - | | |
| | RD Web Access role serv | ice | | | |
| RD Web Access | w2022rds1.MVDI.local | | In Prog | ress | |
| RD Session Host | | Installing | | | |
| | RD Session Host role ser | vice | | | |
| Completion | w2022rds1.MVDI.local | | Pendin | 9 | |

The server will automatically restart (if we have indicated this) and the installation will be completed:

| View progress | | | DEST Standard dep | INATION SERVER loyment selected |
|---------------|--|---------------------------------|----------------------|------------------------------------|
| Completion | The selected Remote Desktop Serv | ices role services are being ir | stalled. | |
| | Server | Progress | Status | |
| | RD Connection Broker role serv w2022rds1.MVDI.local | ice | Succeeded | |
| | RD Web Access role service w2022rds1.MVDI.local | | Succeeded | |
| | RD Session Host role service w2022rds1.MVDI.local | | Succeeded | |

3.2. UDS RDS Server Installation

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Before proceeding to install and configure an RDS collection, it is necessary to install the UDS RDS Server Agent. From the UDS Enterprise download page we select and download the UDS RDS Server.

Downloads ſ udsactor_4.0.0_all.deb udsactor-4.0.0-1.noarch.rpm 7 UDS Actor for Centos, Fedora, RH, Suse, ... Linux machines (Requires python >= 3.9) UDS Actor for Debian, Ubuntu, ... Linux machines (Requires python >= 3.9) udsactor-unmanaged_4.0.0_all.deb udsactor-unmanaged-4.0.0-1.noarch.rpm UDS Actor for Debian based Linux machines. Used ONLY for static machines. (Requires python >= 3.9) UDS Actor for Centos, Fedora, RH, Suse, ... Linux machines. Used ONLY for static machines. (Requires python >= 3.9) UDSRDSServerSetup-4.0.0.exe UDSActorSetup-4.0.0.exe UDS RDS Server (for remote apps on Windows Server) UDS Actor for windows machines UDSActorUnmanagedSetup-4.0.0.exe RDSActorSetup-4.0.0.exe UDS Actor for Unmanaged windows machines. Used ONLY for static machines RDS UDS Actor (legacy, use UDS RDS Server instead) Always download the UDS actor matching your platform

It is installed on the application server:

| 🖊 🛃 📙 👻 Downloads | | | | | | |
|-----------------------|-------------------------|--|--|--|--|--|
| File Home Shar | e View | | | | | |
| ← → × ♠ 🖡 > T | his PC > Downloads | | | | | |
| 📌 Quick access | Name | | | | | |
| 📃 Desktop 🛛 🖈 | V Today (T) | | | | | |
| 👆 Downloads 🛛 🖈 | VDSRDSServerSetup-4.0.0 | | | | | |
| 🔮 Documents 🛛 🖈 | s | | | | | |
| 📰 Pictures 🚽 | s | | | | | |

Select the language:

| Installer La | Installer Language | | | | | | | |
|--------------|---------------------------|--------|--|--|--|--|--|--|
| 8 | Please select a language. | | | | | | | |
| | English | \sim | | | | | | |
| | ОК | Cancel | | | | | | |

A location is selected and installed:

| 💎 UDS Enterprise RDS Server Setup | _ | | × |
|---|-----------------------------|-----------------|-----|
| Choose Install Location | | | |
| Choose the folder in which to install UDS Enterprise RDS Server. | | | |
| Setup will install UDS Enterprise RDS Server in the following folder. To folder, click Browse and select another folder. Click Install to start the | install in a installatio | different n. | : |
| | | | |
| Destination Folder | | | |
| C:\Program Files\UDSRDSServer | Brov | vse | |
| Space required: 118.2 MB | | | |
| Space available: 40.5 GB | | | |
| UDS Enterprise | | | |
| < Back In: | stall | Can | cel |

Once the installation is complete, we run the UDS Actor:

| 😻 UDS Enterprise RDS Server Setup | _ | \times |
|--|---|----------|
| Installation Complete Setup was completed successfully. | | 8 |
| Completed | | |
| Show details | | |

The address of the UDS server, an authenticator, and a user with administrator permissions belonging to the selected authenticator are indicated.

| 😽 UDS AppServ | ver Configuration Tool | |
|----------------|---|--------|
| SSL Validation | Ignore certificate | ~ |
| UDS Server | 192.168.11.71 | |
| Authenticator | Administration | \sim |
| Username | uds | |
| Password | ••• | |
| Log Level | INFO | \sim |
| Interface | 192.168.11.44 ([00000001] Intel(R) 82574L Gigabit Network Connection) | \sim |
| | | |
| Register | with UDS Test configuration Close | |

Once all the data has been entered, click on "**Register with UDS**" to register the Actor with our UDS server:

| 😽 UDS AppSen | ver Configuration Tool |
|----------------|---|
| SSL Validation | Ignore certificate ~ |
| UDS Server | 192.168.11.71 |
| Authenticator | Administration |
| Username | UDS Registration X |
| Password | |
| Log Level | INFO OK V |
| Interface | 192.168.11.44 ([00000001] Intel(R) 82574L Gigabit Network Connection) |
| | |
| Register | r with UDS Test configuration Close |

Click on "**Test configuration**" to confirm that all the data is correct:

VIRTUAL CABLE

| 😽 UDS AppSen | ver Configuration To | bl | |
|----------------------|----------------------|--|-----------------------|
| SSL Validation | Ignore certificate | | ~ |
| UDS Server | 192.168.11.71 | | |
| Authenticator | Administration | | ~ |
| Username Password | UDS Test | nfiguration for 192.168.11.71 seems to | be correct. |
| Log Level | INF | | ОК |
| Interface | 192.168.11.44 ([0 | 00000001] Intel(R) 82574L Gigabit N | Network Connection) ~ |
| | | | |
| Register | with UDS | Test configuration | Close |

Once the UDS RDS Server for Windows RDS servers is installed, we will restart the server and we can proceed with the installation and configuration of the Microsoft Remote Desktop Services collection that will provide the application sessions.

3.3. Configuring RDS with UDS Enterprise

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Once the Remote Desktop Services role, the UDS RDS Server component have been installed and the server has been restarted, we proceed to the creation of a new RDS collection.

Select "Create session collections" or go to the "Collections" section and select "Create Session Collection":



| Before You Begin | A session collection name is displayed to users when they log on to a Remote Desktop Web Access |
|--------------------|---|
| Collection Name | SCIVEL |
| RD Session Host | Name: |
| User Groups | |
| User Profile Disks | Description (optional): |
| | |

The "RD Session Host Servers" server is added:

| Specify RD Sessi | on Host serve | rs | | |
|-------------------------------------|-----------------------|---------------------------|----------------|----------------------------|
| Before You Begin Collection Name | Select the RD Session | n Host servers from the s | server pool to | o add to this collection. |
| RD Session Host | Server Pool | | | Selected |
| User Groups User Profile Disks | Filter: | | | Computer MVDI.LOCAL (1) |
| | Name | IP Address | Operat | w2022rds1 |
| Progress | w2022rds1.MVDI.lo | cal | | |
| | | | | |

You select which groups of users will be able to access the collection. We leave the "Domain Users" group as it is by default to allow all users and perform group filtering from the UDS Enterprise administration.

Specify user groups

| Before You Begin | Add the user groups that should have access to connect to the collection. | |
|--------------------|---|--------|
| Collection Name | User Groups: | |
| RD Session Host | MVDI\Domain Users | Add |
| User Groups | | Remove |
| User Profile Disks | | |
| | | |

It indicates where we want to store the profile of the users. In case we do not enable it, a temporary profile will be created, which will be deleted when the user is disconnected.

| Specify user prof | ile disks |
|--------------------|---|
| Before You Begin | User profile disks store user profile settings and data in a central location for the collection. |
| Collection Name | Enable user profile disks |
| RD Session Host | Location of user profile disks: |
| User Groups | |
| User Profile Disks | Maximum size (in GB): |
| Confirmation | 20 |

Confirm and create the collection.

⊗ ⊳

| Before You Begin | The session collection is being take a while to complete | created. Depending on the size | of the session collection, this |
|------------------|--|--|---------------------------------|
| Collection Name | | | |
| RD Session Host | Activity | Progress | Status |
| User Groups | Create Collection | | Succeeded |
| | Add servers | | Succeeded |
| | | W2022RDS1.MVDI.LOCAL | |
| Progress | | | |
| En Sonio | r Managor | | |
| Serve | r Manager • • Remote Des | ktop Services • Co | ollection |
| Serve | r Manager • • Remote Des Overview Sonvorr | ktop Services Contract C | ollection |
| E Serve | r Manager | PROPERTIES Properties of the collection ection Type Session Parces Remote Data | |

3.4. Publishing RDS Actor to RDS Server

Once we have a collection, we will proceed to register the UDS RDS Server agent as "Remoteapp Programs". To do this, we can do it manually or by running the *fix-rds-app.ps1* script

• Automatic Script

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We must run the fix-rds-app.ps1 file from a Power Shell console with administrator permissions located in the default path: C:\Program Files\UDSRDSServer



NOTE: It is also possible to go to the file and with the right mouse button execute "Run with PowerShell", but in case of any error it will not be possible to view it, so whenever possible it is recommended to run it via PowerShell console. Once executed, it is necessary to close "Server Manager" and reopen it to view the changes, since it is not updated automatically.



Launch the script:

UDS

| | 🔀 Administra | tor: Windows PowerShell | | | | | | | |
|------------------|-----------------------------------|-------------------------|---------|------------------|------------------------------|-------------------------|------------------------|-----------------------------|------------------------|
| | PS C:\Progr | am Files\UDSRDSS | erver> | ls | | | | | |
| | Directo | ory: C:\Program Fi | iles\UD | SRDSServer | | | | | |
| | Mode | LastWri | iteTime | Length | Name | | | | |
| | d | 16/07/2025 | 2.06 | | internal | | | | |
| | -a | 16/03/2025 | 2:00 | 1005 | _incernal fix-rds-ann.ns1 | | | | |
| | -a | 30/05/2024 | 22:38 | 112 | README.txt | | | | |
| | -a | 27/01/2025 | 17:00 | 3789776 | UDSRDSLauncher. | exe | | | |
| | -a | 27/01/2025 | 16:59 | 3992144 | UDSRDSServer.ex | e | | | |
| | -a | 27/01/2025 | 17:00 | 4001032 | UDSRDSServerCon | fig.exe | ž | | |
| | -a | 27/01/2025 | 17:00 | 4001032 | udsrdsservercon | figcli | exe | | |
| | -a | 16/03/2025 | 2:06 | 63498 | UDSRDSServerUni | nstalle | er.exe | | |
| Administrator: V | PS C:\Progr Vindows PowerShell | am Files\UDSRDSSe | erver> | .\fix-rds-app.p | 51_ | | | | 1 > |
| PS C:\Program | Files\UDSRDSSer | ver> .\fix-rds-app | .ps1 | | | | | | |
| CollectionName | Alias | DisplayName | | FilePath | | ShowIn WebAcc ess | CommandLin eSetting | RequiredC ommandLin e | Use rGr oup s |
| IDS | UDSRDSLauncher | UDS RDS Launcher | | C:\Program Files | \UDSRDSServer | False | Allow | | |
| S C:\Program | Files\UDSRDSSer | ver> | | | | | | | |

The script will be responsible for registering the UDS RDS server agent within the (existing) collection in the "Remoteapp programs" section; to view it it will be necessary to close and reopen the "Server Manager" console.

| | Overview | PROPERTIES Properties of th | e collection TASKS 💌 |
|------------|-------------|---|---|
| i | Servers | Collection Type | Session |
| in | Collections | Resources | RemoteApp Programs |
| i d | UDS | User Group | MVDI\Domain Users |
| 6 | | | |
| | | | |
| <u>⊗</u> ⊳ | | | |
| <u>⊛</u> ⊳ | | | |
| 30 ⊳ | | | |
| ⊗ ⊳ | | REMOTEAPP PROC | RAMS |
| ⊗ ⊳ | | REMOTEAPP PROC Last refreshed on 16/03 | RAMS /2025 3:02:23 Published RemoteApp p TASKS 💌 |
| ⊗ ⊳ | | REMOTEAPP PROC Last refreshed on 16/03 | RAMS /2025 3:02:23 Published RemoteApp p TASKS ▼ |
| ⊗ ⊳ | | REMOTEAPP PROC Last refreshed on 16/03 | RAMS /2025 3:02:23 Published RemoteApp p TASKS ▼ |
| ⊗ ⊳ | | REMOTEAPP PROC Last refreshed on 16/03 Filter RemoteApp Program | RAMS /2025 3:02:23 Published RemoteApp p TASKS ▼ P ③ ③ ▼ ③ ▼ ③ Name Alias Visible in RD Web Access |
| ⊗ ⊳ | | REMOTEAPP PROC Last refreshed on 16/03 <i>Filter</i> RemoteApp Program UDS RDS Launcher | RAMS /2025 3:02:23 Published RemoteApp p TASKS ▼ P IIII ▼ (R) ▼ (S) Name Alias UDSRDSLauncher No |

• Manual registration

In the "Remoteapp Programs" section, open the available tasks and select "Publish RemoteApp Programs".

| REM Publis | OTEAPP PROGRAMS ihed RemoteApp programs 0 total | TAS | KS 🔻 | | | |
|----------------------|--|----------------------------|------|------------------------------------|--|--|
| | Remote Desktop is published for the users of the collecti | Publish RemoteApp Programs | | teApp Programs moteApp Programs | | |
| | Publish RemoteApp programs Publishing RemoteApp programs will unpublish the Remote L | Deskto | | | | |

Click on "Add"

| The RemoteApp programs are populated | from W2022RDS1.MVDI.LOCAL |
|--|---|
| RemoteApp Program | Location |
| System Information | %SYSTEMDRIVE%\Windows\system32\msinfo3 |
| 🗌 🎣 Task Manager | %SYSTEMDRIVE%\Windows\system32\taskmgr |
| 🗌 🖸 Windows Media Player | %SYSTEMDRIVE%\Program Files (x86)\Windows |
| Windows Memory Diagnostic | %SYSTEMDRIVE%\Windows\system32\MdSche |
| 🗌 🚵 Windows PowerShell ISE | %SYSTEMDRIVE%\Windows\system32\Window. |
| Windows PowerShell ISE (x86) | %SYSTEMDRIVE%\Windows\syswow64\Window |
| 🔲 🏺 Windows Speech Recognition | %SYSTEMDRIVE%\Windows\Speech\Common\s |
| 🗌 🔤 WordPad | %SYSTEMDRIVE%\Program Files\Windows NT\ |
| A start with the second | %SYSTEMDRIVE%\Windows\system32\xpsrchv |

Select *UDSRDSLauncher.exe* in the default path:

Select RemoteApp programs

C:\Program Files\UDSRDSServer



Confirm that it has been added correctly.

| RemoteApp Programs | Select the RemoteApp programs to publish to the UDS collection. To add a RemoteApp progr the list click Add | | | | |
|--------------------|--|---|--|--|--|
| Confirmation | | | | | |
| | The RemoteApp programs are populated from W2022RDS1.MVDI.LOCAL. | | | | |
| Completion | RemoteApp Program | Location | | | |
| | 🔲 🎣 Task Manager | %SYSTEMDRIVE%\Windows\system32\taskmgr | | | |
| | 🗌 💽 Windows Media Player | %SYSTEMDRIVE%\Program Files (x86)\Windows | | | |
| | Windows Memory Diagnostic | %SYSTEMDRIVE%\Windows\system32\MdSche | | | |
| | 🗌 😂 Windows PowerShell ISE | %SYSTEMDRIVE%\Windows\system32\Window | | | |
| | 🗌 🚑 Windows PowerShell ISE (x86) | %SYSTEMDRIVE%\Windows\syswow64\Window. | | | |
| | 🔲 🌐 Windows Speech Recognition | %SYSTEMDRIVE%\Windows\Speech\Common\s. | | | |
| | 🗌 🔤 WordPad | %SYSTEMDRIVE%\Program Files\Windows NT\ | | | |
| | Average Averag | %SYSTEMDRIVE%\Windows\system32\xpsrchv | | | |
| | ✓ | c:\Program Files\UDSRDSServer\UDSRDSLaunc | | | |

Launch the publication:

| lemoteApp Programs | Confirm that the list of RemoteApp pr | ograms to be published is correct, and then click Publish |
|--------------------|---------------------------------------|---|
| Confirmation | 1 RemoteApp program: | |
| Publishing | RemoteApp Program | Location |
| | T UDSRDSLauncher | c:\Program Files\UDSRDSServer\UDSRDSLaunc |
| | | |

Once it is created, edit its properties:

| REMOTEAPP PROGRAMS Last refreshed on 16/03/2025 3:19:44 Published RemoteApp p TASKS | | | | | |
|--|--------------------------|----------------------|------|--|--|
| Filter | ٩ | · · · | ۲ | | |
| RemoteApp Program Name | Alias | Visible in RD Web Ac | cess | | |
| UDSRDSLauncher | UDSRDSLauncher Edit P | Yes Properties | | | |

In the "General" section we mark "No" in "Show the RemoteApp program in RD Web Access".

UDSRDSLauncher (UDS Collection)

| Show All | |
|--|--|
| General – | General |
| Parameters + User Assignment + File Type Associati + | RemoteApp program name: UDSRDSLauncher Alias: UDSRDSLauncher RemoteApp program location: c:\Program Files\UDSRDSServer\UDSRDSLauncher.exe Current icon: Show the RemoteApp program in RD Web Access Show the RemoteApp program in RD Web Access Yes No Type the name of the folder in which you want this RemoteA |

In the "Parameters" section we select "Allow any command-line parameters".

UDSRDSLauncher (UDS Collection)

| Show All General + | Command-line Parameters |
|-----------------------|---|
| Parameters – | |
| User Assignment 🛛 🕂 | O Do not allow any command-line parameters |
| File Type Associati 🕇 | Allow any command-line parameters Allowing this RemoteApp program to run with any command-line parameter, your server may be vulnerable to malicious software. Always use the following command-line parameters |

Changes are applied and accepted.

Additionally, it is recommended to indicate a time to end the sessions of disconnected users. This will free users and their licenses when they disconnect from your virtual app. To do this, we edit the properties of the collection:

| •• Remote Desktop Services • Collections • UDS | | | | | |
|--|------------------------|--------------------------------|-------------------------------|-------|-----------|
| | Overview | PROPERTIES Properties of th | e collection | TASKS | CO Las |
| | Servers Collections | Resources | Session RemoteApp Programs | Luiti | l |
| ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ | UDS | User Group | WVD/Domain Users | | Se wa |

In the "Session" section we indicate a minimum time for "End a disconnected session":



Once all these steps have been completed, we will have a valid RDS server to connect to the UDS server and be able to publish virtual applications for UDS Enterprise users.

4. UDS Enterprise Administration

Once all the above steps have been completed and with an application server configured and ready to be used by UDS, the configuration will be carried out in the UDS administration to be able to publish virtual application session services.

We will access the UDS administration with a user with permissions and we will proceed to create the different elements to be able to publish the service through a service pool.

4.1. RDS Server Pool and Service Provider

The first of the elements necessary to publish applications will be the creation of a service provider of type "RDS Platform Provider", for this we must previously have registered at least one group of servers that will contain the RDS servers configured previously.

In the UDS administration, we access the "Services" section and select "Servers". Click on "New" and select the type "Managed" – "RDS Server" to register a new group of servers managed by the UDS RDS Server agent.

| | 🗅 Servers G | roups | | |
|----|-------------|--------|--------------------|----------|
| | New | / Edit | & Permi | ssions 🕇 |
| 0 | Managed | • | RDS Server | Commonte |
| 6 | Unmanaged | • - | | Comments |
| G | | _ | | |
| 0_ | | | | |

NOTE: if we use the "Unmanaged" - "RDS Server" type, it will be necessary to use the RDS actor, which will be discontinued in future versions and will not offer all the functionalities of the "Managed" mode with the UDS RDS Server agent.

We provide a descriptive name for the server group and save the item.

New server of type RDS Standard

| 11 |
|----|
| |

Enter the element by double-clicking on it or accessing its details

IRTUAL



Click on "New" and add all the necessary RDS servers that will be part of this group of servers. The servers must be previously registered with the UDS server through the installation of the UDS RDS Server agent, if they have not been registered the drop-down menu will not appear to select it.

| ← 🔿 RDS Server | New server of type RDS Server | |
|--------------------------|-------------------------------|------|
| | w2022rds1 | • |
| Co Servers of RDS Server | Discard & close | Save |
| Filter | 0 of 0 I< < > >I 0 | |

NOTE: All registered servers will appear in the "Tools" menu under "Tokens" – "Servers", if they do not appear in this section, they cannot be added to a group of servers and used by the RDS provider to serve virtual application sessions.

| | | Registered Se | rvers | | | |
|-----------------|----|---------------|----------------|--------|---------|------------|
| <u>د</u> ن ۹ | t, | Export CSV | 🕱 Delete | Filter | | 1 – 4 of 4 |
| | _ | Hostname | IP | Туре | OS | Issued by |
| | | w2022rds1 | 192.168.11.44 | | windows | uds |
| Ē | | RDS-W2019 | 192.168.11.102 | | windows | uds |
| ~ | | vapps1 | 192.168.11.76 | | windows | uds |
| C | | udstunnel | 192.168.11.72 | | linux | uds |
| | | | | | | |
| 8 | | | | | | |
| a | | | | | | |
| 0 | | | | | | |

Once all the RDS servers that will make up the server group have been added, we will be able to view them and make sure that port 43910, which will be used for the correct communication between the RDS services and the UDS server, is allowed.

| ← C RDS Server | | | | | | |
|-------------------------|--------------------------|----------------|---------|--|--|--|
| Sur | nmary | | Servers | | | |
| ○ Servers of RDS Server | | | | | | |
| New / Edit | II Enter maintenance mod | e † Export CSV | Delete | | | |
| Filter | 1 – 2 of 2 | د > > ب | | | | |
| Hostname | lp | Port | State | | | |
| w2022rds1 | 192.168.11.44 | 43910 | Normal | | | |
| RDS-W2019 | 192.168.11.102 | 43910 | Normal | | | |

If we need to pause operations on a server, for example, for maintenance tasks, select it and click on "Enter maintenance mode" so that it is not used.

Once we have a valid server group, with at least one server registered, we will proceed to create the service provider of type "RDS Platform Provider". Go to the "Services" section and select "Providers". Click on "New" and select the type "RDS Platform Provider".



In the "Main" tab, we will indicate a descriptive name for the element and indicate the server group (which contains the RDS servers that will run the applications), previously created and used by the provider. The "Server Checking" check will be important to enable if we want to provide the provider with high availability, allowing us to check the RDS server before launching an application and if it does not respond, pass the request to execute the application to another server in the group.

| New provide | er | | |
|---------------------------------------|-------------------|--------------------|----------|
| Main | User mapping | AD User management | Advanced |
| Tags — Tags for th | nis element | | |
| RDS vAPP | S | | |
| Comment | S | | |
| Server C Server group RDS Serve | hecking * r | | • |

 The "User mapping" tabs (deprecated as of UDS version 4.0) and "AD User management" will allow us to map users who do not belong to UDS AD with others who do. For example, if we use users from an authenticator other than AD (Internal, IP, OpenLDAP, etc...) it will be possible to instruct the system to create an on-demand user in an AD and "match" it to the UDS authenticator user.

NOTE: If we use an Active Directory authenticator, it will not be necessary to enable automatic user mapping.

If we enable "**User auto creation on AD**", we must fill in the following fields:

User auto creation on AD: "**Yes**" indicates that specific users self-created by UDS in an AD will be used to access applications.**No**" will use the user of the UDS login portal to access the applications (in this case it has to be an AD user).

AD Server: IP or name of the Active Directory server where new users will be created (the server must have connection via LDAPs enabled).

Port: Port used in the connection.

AD server OU for created users: An organizational unit where new users will be created.

Username: Domain user with permissions to create and delete users. In format: *user@dominio.xxx*

Password: Password of the user indicated

Prefix for created users: A prefix that will be added to the name of the user created in the AD. The final name of the created user will be: *prefix+nombre_usuario*.

AD Domain: Name of the domain where new users will register. If it is not indicated, the domain of the field: "Username" will be used.

AD Group: Name of the group (must exist) to which UDS will add the new users created.

| New | provider | | |
|------------|---------------------------|------------------------------|----------------------|
| < | User mapping | AD User management | Advanced > |
| | User auto creation on | AD | |
| - AD 19 | 2.168.11.40 | | |
| — Por | t * | | |
| 63 | 6 | | |
| — AD | server OU for created use | rs | |
| 00 | I=UDS_Users,DC=VC | ,DC=IOCAI | |
| — Use | ername | | |
| ud | s@mvdi.local | | |
| — Pas | sword | | |
| | | | Ø |
| — Pre | fix for created users —— | | |
| UD | IS_ | | |
| — AD | Domain ———— | | |
| Do | main for newly crea | ited users (i.e. example.con | n, example.local). I |
| — AD | Group | | |
| lfr | not empty, UDS will | try to add managed users to | o this group |

 In the "Advanced" tab, we can indicate the load balancing threshold of the servers that make up the server group. If the threshold is set to zero (default), the server in the pool that has the least resources in use will always be chosen (the calculation of resources in use is done taking into account the server's CPU and RAM usage).

When a value other than zero is indicated, it will be taken as the percentage of maximum usage that the server must have to host user sessions. For example, if we have 3 servers, with usage percentages: server1= 10%, server2= 50%, server3=80% and the threshold is indicated as 60%, the system will host the new user on server2, since it is closer to the indicated threshold, without going over.

| New provid | er | | |
|----------------|--------------|--------------------|----------|
| Main | User mapping | AD User management | Advanced |
| C Load thresho | ld * | | |

We save and we already have a valid RDS provider to start registering applications





We enter the provider with a "double click" or by accessing its details. Now click on "New" and select "RDS Platform RemoteAPP".



A name and the execution path of the application will be entered:

New service: RDS Platform RemoteAPP

| Main | Advanced |
|-------------------------|---------------------------------|
| Tags | |
| Tags for this element | |
| Name * | |
| Paint | |
| | |
| Comments | |
| Application path * | |
| C:\Windows\System32\ | mspaint.exe |
| Application parameters | |
| Applications parameters | s, as will be passed in comma |
| Start path | |
| Path where the app will | be started on. (i.e. f:\example |

In addition, other parameters can be defined if desired:

- **Application Parameters**: Parameters can be passed to any application in this field to customize its execution (e.g., to a browser-type application, a homepage).
- **Start Path**: The path where the application will run.

In the Advanced section we can also indicate:

Windows Application Virtualization

- Max. Allowed services: Maximum number of concurrent sessions that can be launched from the application (0 = unlimited).
- Wait spawned processes: If enabled, the detection of the app's end-of-use will be conditioned by the child apps that the parent app calls. It is recommended that you enable this option when a user is not using the app correctly.

New service: RDS Platform RemoteAPP

| Main | Advanced |
|--------------------------|----------|
| Max. Allowed services *0 | |
| Wait spawned processes | 3 |

4.2. Authentication Method

ABLE

The way in which users will access the UDS Enterprise environment will be created and configured.

This step will be done in the "**authenticators**" tab, being able to choose between different authentication systems.

NOTE: We must take into account the way in which our users will log in to UDS Enterprise, since in this case if the users who access UDS Enterprise do not do so through the AD to which the RDS server belongs, we must indicate in the service the mapping of users so that they are those with whom the application is accessed.

This example will use an Active Directory-based authentication system.

For more information on how to register an authentication system, you can consult the "UDS Enterprise Administration Manual" in the <u>documentation section</u>.

4.3. OS Manager

Within the "OS Manager" tab, clicking on "New" will select "RDS OS Manager".



In this type of OS Manager we will define the following parameters:

Name: Name of the "OS Manager".

Max. session time: Maximum time that the session of an application registered in UDS Enterprise will remain. Expressed in hours (0 = unlimited).

New OS Manager

| Tags — Tags for this element | |
|---------------------------------|---|
| RDS | |
| Comments | 1 |
| Max. session time *24 | |

4.4. Transport

The way in which users will connect to your virtual application service will be created and configured.

In the "Connectivity > Transport" tab, click on "New".

The appropriate transport will be configured for each case:

Direct Connection (LAN)

Tunneled Connection (WAN o HTML5)

| ■ Transports | ► New ✓ Edit A Permissions |
|----------------------------------|--------------------------------|
| ► New / Edit 2 Perm | Direct + |
| Direct 🕨 🤄 NICE DCV | Tunneled |
| Tunneled MoMachine | Priority E HTML5 RDS for vApps |
| Priority RDP | 1 HTML5 SSH |
| RDS for vApps | |
| | III NoMachine |
| OF ICE | 1 PCoIP Cloud Access |
| | RDP |
| | RDS for vApps |
| | SDICE |
| New Transport | |
| K Main Creden | tials Parameters D > |
| Tags | |
| Tags for this element | |
| _{Name} * RDS Windows | |

In this example, we'll use the "RDS for vAPPs" direct transport

For more information on how to create a transport for RDS applications, you can consult the "UDS Enterprise Administration Manual" in the <u>documentation section</u>.

4.5. Service Pool

Once we have completed the previous steps and have all the necessary elements available, we will move on to configure the Service Pool.

In the "Pools > Service Pool" tab, click on "New".



A descriptive name will be entered for the application to be published, the base service and its OS Manager.

| Main | Display | Advanced | Availability |
|-----------------------------|------------------|------------------|--------------|
| Tags — Tags for th | is element | | |
| Paint | | | |
| Short name – | e for user servi | ce visualization | |
| Comments | 6 | | 7 |
| Base service - RDS vAPP: | s∖Paint | | • |
| OS Manager - RDS | | | • |

Publish on creation

New service Pool

In the following tabs, among other things, we can indicate an image and grouping for the service, advanced permissions so that the user can perform actions, etc. For more information on the rest of the options of a service pool, you can consult the "UDS Enterprise Administration Manual" in the <u>documentation section</u>.

We save and we will have available the pool of services to assign who and how will access.

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| Service Pools | | | | | | |
|---------------|---------------|---------------|----------------|--------|---------|---------------------|
| New 🖍 Edit | A Permissions | t↓ Export C | SV 🕅 Delete | Filter | nt | X 1- |
| Name 🛧 | Status | User services | In Preparation | Usage | Visible | Shows transports |
| D 📑 Paint | Active | 0 | 0 | 0% | yes | yes |

Once we have created the service, we will enter it (by double-clicking on it or entering its details) to assign user groups and transports:

• **User groups:** In the "Groups" tab, click on "New", select an authenticator and a group and add it

| 🗲 🛄 Paint | | | | | |
|---------------|-------------------|----------|------------|--------------|----|
| < Summary | Assigned services | Groups | Transports | Scheduled ac | ti |
| 🟩 Assigned gr | oups | | | | |
| New 1 | Export CSV | elete | Filter — | 0 0 | of |
| Name | | comments | | Туре | |
| | | | | | |
| New | group for Paint | | | | |
| Auti | nenticator — | | , | | |
| AD | | | * | | |
| Grou | qi | | | | |
| vdi | -users | | * | | |

We will be able to add all the authenticators and groups that we need to access the application.

If you add non-Active Directory authenticators, you will need to have the user mapping option available from the service provider configured.



| ÷ | Paint | | | | |
|---|------------|---------------------------|----------|------------|-----------------|
| < | Summary | Assigned services | Groups | Transports | Scheduled actio |
| | Assigned | groups | | | |
| | New | ↑ _↓ Export CSV |)elete | iter | 1 - 2 of |
| | Name | | comments | | Туре |
| | VDI@AD | | | | meta |
| 1 | vdi-users@ | AD | | | group |

• **Transport:** In the "Transports" tab, click on "New", select a transport by which the service will be accessible.

| 🔶 🛄 Paint | | | | | |
|------------|--------------------|--------|------------|--------|-------------|
| Summary | Assigned services | Groups | Transports | Schedu | led actions |
| ഘ Assigned | d transports | | | | |
| New | †↓ Export CSV | Delete | ilter | | 0 of 0 |
| Priority | Name 个 | | Туре | | Comments |
| N | ew transport for I | Paint | | | |
| | Transport | | | - | |

We will be able to add all the transports we need, depending on the access mode required by the service (either via RDS for vAPPs, HTML5, etc...). Although we indicate a multitude of transports here, it is possible that the user will only be shown the appropriate ones based on their filtering policies (by IP source, device, etc...).

| ← | | | | | |
|---------------------------|-------------|---------------------------|--------|------------------------|-------------------|
| < | Summary | Assigned services | Groups | Transports | Scheduled actions |
| ন্দ্র Assigned transports | | | | | |
| E | New | † _↓ Export CSV | elete | ilter | 1 – 3 of 3 |
| | Priority | Name 🛧 | | Туре | Comments |
| | 1 RDS HTML5 | | | HTML5 RDS for vApps | |
| | 1 | 1 RDS LAN | | RDS for vApps | |
| | 1 RDS WAN | | | RDS for vApps | |

5. Access to Windows apps

Once all the configuration is complete, access to the service will be possible. This access can be made from Windows OS (Server and Desktop) and from Linux OS through the UDS client and from any OS with a browser through the HTML5 connection mode.

We access the UDS Enterprise login portal and validate ourselves with an AD user integrated in UDS and who belongs to a group that is registered in said authenticator.



In the User Services window, you will be able to see the available service:

Depending on the configuration of the transport or via manual selection, it will be connected to the application.



NOTE: For the application to be visible to a user, it is necessary that it has been assigned a group to which the user belongs and has at least one mode of connection (transport), if these requirements are not met, the user will not be able to view said application.



A user can have unlimited applications available grouped in different ways based on their needs, it is also recommended to identify applications with their corresponding icon to make it easier for the user to identify.



6. Different methods of accessing a vApp service

The same vApp service can be assigned one or more modes of access (transports), depending on the user's needs, for example, if it is connected from the corporate LAN or from an external network and depending on the OS of the device from which it is connected (Windows Linux, Android, etc...).

The transports must be previously defined and we will assign them to a specific application or we can use them generically for several applications.

6.1. Direct (LAN)

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The direct transport that we can use for virtual application services is "RDS for vAPPs".



To successfully use this transport, the connecting client from which the user connects must meet the following requirements:

- Have the UDS Client component installed.
- Have a Windows or Linux OS.
- Have direct connectivity via port 3389 to the application servers that make up the RDS server pool.

6.2. Tunneling (LAN and WAN)

The tunneled transports that we can use for virtual application services will be "HTML5 RDS for vAPPs" and "RDS for vAPPs". Either of these two transports will require having a Tunnel server configured and registered with the UDS server.



• **HTML5 RDS for vAPPs:** This transport does not require the UDS Client component installed and its only requirement at the OS level of the connection client will be to have a current web browser. The app will be displayed directly in a browser tab.

Within the "tunnel" tab of the transport, we must indicate a Tunnel server with the configured port that will be the one to which the user will connect. The address of this tunnel must be accessible by the user's connection client even if the access is from outside the LAN, in which case a previously configured public IP must be used.

RDS for vAPPs: This transport requires the UDS Client component installed and the OS of the connection client to be Windows or Linux.

Within the "tunnel" tab of the transport, we must indicate a Tunnel server with the configured port that will be the one to which the user will connect. The address of this tunnel must be accessible by the user's connection client even if the access is from outside the LAN, in which case a previously configured public IP must be used.

7. About Virtual Cable

<u>UDS Enterprise</u> is a new software concept to create a **fully** customized **workplace virtualization** platform. It provides **24x7 secure access**, from anywhere and on any **device** to all the applications and software of an organization or educational center.

It allows virtualization of Windows and Linux desktops and applications 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 public, private, hybrid or **multicloud** cloud. Even **combine** multiple environments at the same time and perform **automatic, intelligent overflows** to optimize performance and efficiency. All with a **single subscription**.

<u>Virtual Cable</u> 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 **smart 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's professionals have **more than 30 years of experience** in IT and software development and more than 15 years in virtualization technologies. Every day, **millions of Windows and Linux virtual desktops are deployed with UDS Enterprise around the world**.