

# UDS Enterprise 3.6 with Huawei Cloud







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# Introduction

Huawei Cloud is a proprietary of Huawei that offers cloud services. Some of its advanced features include the ability to run virtual machines, virtual applications, databases, backups, and many other tasks. It integrates countless cloud services that are necessary to develop, test, deploy and manage virtual machines (VMs).

This VDI Guide with UDS Enterprise & HUAWEI will help you to know the procedure to deploy and configure the UDS Enterprise components on said platform. This document shows, through real examples, how to create the necessary resources so that UDS Enterprise can deploy virtual desktops on HUAWEI.





# **UDS Enterprise on Huawei Cloud**

Before carrying out the integration, it is advisable to invest time in knowing the different configurable parts of UDS Enterprise (for more information visit our <u>Web</u>. In the section <u>Documentation</u> You will find the UDS Enterprise installation, administration and user manual). One of them is the Service Providers, an extremely important element for the configuration of Huawei Cloud in UDS Enterprise.

UDS Enterprise will allow the deployment of self-generated virtual desktops and virtual application sessions on the HUAWEI platform. The UDS components (Server, Tunnel and Database) can be hosted in the HUAWEI environment itself or can also be hosted in any other on-premise virtualization platform with connectivity to the HUAWEI environment.

To import, install and configure UDS Enterprise within a HUAWEI environment, you must request its specific components for this environment (UDS-Server, UDS-Tunnel and Database) and a serial number (Evaluation/ Enterprise) from Virtual Cable .

You must have a valid HUAWEI subscription with permissions on which to deploy the UDS Enterprise components, virtual desktops or Windows/Linux application servers.

# Where do I begin?

First, you need to have an account with administrator privileges (you can use an IAM account with permissions) on the HUAWEI platform. If you already have it, Log in to the <u>portal</u>.





| IAM User Login                                  |                                |  |  |  |  |
|---|--------------------------------|--|--|--|--|
| Tenant name or HUAWEI CLO                       | OUD account name               |  |  |  |  |
| IAM user name or email add                      | IAM user name or email address |  |  |  |  |
| IAM user password                               | IAM user password              |  |  |  |  |
| Log   | In                             |  |  |  |  |
| Forgot Password                                 | Remember me                    |  |  |  |  |
| Use Another Account: HUAWEI ID   Federated User |                                |  |  |  |  |

If you already have an active UDS environment (on a virtual on-premise platform or on another cloud platform) and you want to integrate it with HUAWEI, you must perform the necessary configurations at the network level so that there is communication between the UDS servers and the HUAWEI environment. In this case, you can go directly to the "UDS Enterprise Administration" section.

If you want to host the UDS components within the HUAWEI environment, the Virtual Cable team will provide you with these components in a specific format and you must perform a series of tasks to import them.





# Deploy UDS servers on HUAWEI

Below is an example of how to deploy the servers that make up the UDS environment on a HUAWEI platform. This guide details the steps to upload and create the UDS Server component. The same tasks must be carried out for the UDS Tunnel server and the database.

If the UDS version to be installed is Enterprise, it will be necessary to upload the database server to the platform. If you use the and UDS Evaluation Edition versions, you can not deploy a database server and activate a local database included in the UDS server, although this configuration will not allow the environment to be updated.

The UDS servers will be provided by the Virtual Cable team in disk image format.

# • User creation in IAM module

To import the UDS components we will need to have a user account with permissions, within the HUAWEI tenant.

If you do not have any previously created user or you wish to configure a specific one to be used by UDS (recommended), the procedure shown below will be carried out:

We access the IAM module in our HUAWEI environment (where we must have full permissions), select from the menu "*Identity and Access Management*" the paragraph "*users*" and "*create user*":



In the new user creation wizard, we will indicate a name and select "*Access Type – Programmatic access*":





| Users / Create User  |   |
|----------------------|---|
| 1 Set User Details — |   |
| ★ User Details       | The username, email address, and r * Username       |
|                      | <ul> <li>Enter a username.</li> <li></li></ul>      |
| * Access Type        | Programmatic access<br>Allows access to HUAW EI CLO |

In the next step of the wizard we will configure the necessary permissions that the user must have. We can create a group with specific permissions or assign them directly.

The permissions that the user must have will be:

| User | Groups / a  | admin                  |  |                |                     |                    |                      |
|------|-------------|------------------------|--|----------------|---------------------|--------------------|----------------------|
|      | Name        | admin 🖉                | G  | Group ID       | bcd3f6e367ef41418   | fc6eba29e507268 🗇  |                      |
|      | Descriptior | n Full permissions     | <u>/</u> c   | Created        | Jan 27, 2023 14:57: | 17 GMT+02:00       |                      |
|      | Permissio   | ons Users              |  |                |                     |                    |                      |
|      | Delete      | Authorize              | Authorization records (IAM projects): 3; (e projects): 0 | enterprise     | User group name: ac | dmin 💿 Search by p | olicy/role name. Q   |
|      | F           | Policy/Role            | Policy/Role Description                                  | Project [Reg   | ion]                | Principal          | Principal Descriptio |
|      | Т           | Fenant Administrator   | Tenant Administrator (Exclude IA                         | All resources  | [Existing and fut   | admin              | Full permissions     |
|      | A           | Agent Operator         | Permissions for switching roles t                        | All resources  | [Existing and fut   | admin              | Full permissions     |
|      |             | Security Administrator | Full permissions for Identity and                        | Global service | e [Global]          | admin              | Full permissions     |
|      |             |                        |  |                |                     |                    |                      |





### Bucket Creation

Once we have a user and their connection data, we must create a new bucket from the module "*Object Storage Service*" of the HUAWEI environment so that it can later be modified to allow it to contain the UDS components.

We access Object Storage Service, we are located in "*Object Storage*" and click on "*create bucket*":







In the wizard, we will indicate a name, select our region and leave the rest of the default options:

| Create Bucket |  |   |   |                      |
|---------------|--|---|---|----------------------|
| Region        | EU-Dublin     Regions are geographic areas isolated from each oth latency and quick resource access, select the neares | ner. Resources are region-specific and cannot be used<br>st region. Once a bucket is created, the region cannot i | l across regions through internal network connectio | ons. For low network |
| Bucket Name   | uds.enterprise       ① Cannot be the same as that of the current user's enterprise                                     | Existing ① Cannot be the same as that of a  | ny other user's existing U Cannot be e              | dited after          |
|               | DUCKets.   | buckets.  | creation.   |                      |

We create the bucket that will host the UDS servers:

| < uds-enterprise □  |                   |                |  |  |  |
|---|-------------------|----------------|--|--|--|
| Overview<br>Objects                                       | Basic Information |                |  |  |  |
| Permissions 🔻   | Bucket Name       | uds-enterprise |  |  |  |
| Basic Configurations <ul> <li>Domain Name Mgmt</li> </ul> | Storage Class     | Standard       |  |  |  |
| Inventories   | Bucket Version    | 3.0            |  |  |  |
|   | Region            | EU-Dublin      |  |  |  |





# Import UDS servers

To import the UDS components, we must have their images in .qcow2 format:



Once downloaded, we will upload the UDS appliances to the indicated bucket of the HUAWEI environment.

| < uds-enterprise □   |         |                                       |   |
|----------------------|---------|---------------------------------------|---|
| Overview             | Objects |                                       |   |
| Objects              |         | Upload Object F                       | low to Upload a File Larger than 5 GB?  |
| Permissions 🔻        | Obje    | 1 Upload Object —                     | (Optional) Configure Advanced Settings  |
| Basic Configurations | Objec   | <ul> <li>Upload actions wi</li> </ul> | Il generate requests . After the upload, you will be billed for data stor   |
| Domain Name Mgmt     | For se  | Storage Class                         | Standard Infrequent Access Archive  |
| Inventories          | U       |                                       | Optimized for frequently accessed (multiple times per month) da   |
|                      |         |                                       | If you do not change this setting, your uploaded objects will be s<br>bucket creation. Learn more                                     |
|                      |         | Upload Object                         | The file or folder you newly upload will overwrite any existing<br>of the same file or folder, enable versioning for the current buck |
|                      |         |                                       | OBS   |
|                      |         |                                       | Drag files or folders here<br>(A maximum of 100 files can be uploaded at a  |
|                      |         | Server-Side Encryption                | Disable SSE-KMS   |





| < uds-enterprise     | l.  |   |
|----------------------|---|---|
| Overview             | Objects ⊡   |   |
| Objects              |   |   |
| Permissions <        | Objects Deleted Objects Fragment  | S   |
| Basic Configurations | Objects are basic units of data storage. In OBS, files a  | ind folders are treated as objects. Any file type                           |
| Domain Name Mgmt     | You can use OBS Browser+ to move an object to any<br>For security reasons, files cannot be previewed online | other folder in this bucket.<br>when you access them from a browser. To pre |
| Inventories          | Upload Object Create Folder De  | More 🔻  |
|                      | Name S  | Storage Class Size ⑦ ↓Ξ   |
|                      | UDS-Tunnel-qcow2.3.6.0.qcow2  | Standard 2.49 GB  |
|                      | UDS-Server-qcow2.3.6.0.qcow2  | Standard 2.86 GB  |
|                      | UDS-Dbserver-qcow2.3.6.0.qcow2  | Standard 1.65 GB  |
|                      |   |   |

# Creation of UDS servers

The next step in deploying the UDS components will be to create an image using the corresponding qcow2 file. Therefore, access the module "*Image Management Service*" and we will create the images:

| Image Type and Sou | irce   |  |   |
|--------------------|--|--|---|
| * Region           | EU-Dublin 👻  |  |   |
|                    | For low network latency and quick resource access, selec   | t the region nearest to your target users.   |   |
| 🗙 Туре             | System disk image Full-ECS image   | Data disk image ISO image  |   |
| * Source           | ECS   BMS   Image File   |  |   |
|                    | <ul> <li>Image file format must be VHD, ZVHD, VMDK, C</li> <li>The size of image files (excluding files in RAW or</li> <li>Image files must be configured and then be uplo</li> <li>Learn more</li> <li>The created private image may be different from</li> <li>The Fast Create function applies only to an optin</li> <li>Before creating an image, please check the know</li> </ul> | COW2, RAW, ZVHD2, VHDX, QCOW, VDI, or Q<br>ZVHD2 format) must be less than 128 GB. Lea<br>aded to an OBS bucket with Standard storage l<br>the source image file in format and size.<br>nized image file in RAW or ZVHD2 format.<br><i>n</i> issues with image OSs. Learn more | ED.<br>am more<br>before they can be used to create private images. |
|                    | OBS Buckets > uds-enterprise   |  |   |
|                    | Name   | Last Modified  | Type Size   |





We select the corresponding file disk and in the image configuration we will indicate the following:

| * Function              | ECS system disk image BMS system disk image  |
|-------------------------|--|
| Boot Mode               | BIOS UEFI  |
|                         | The boot mode must be the same as that of the OS contained in the image file. Otherwise                                    |
| OS                      | Debian  CRU/Linux 11.3.0 64bit   |
|                         | If the OS you selected is different from the OS in the image file, IMS will use the OS in the creation. View supported OSs |
| ★ System Disk (GB)      | 40 + The system disk size must be larger than the image  |
|                         | Add Data Disk You can add 3 more data disks.   |
| * Name                  | UDS_Server   |
| Encryption              | KMS encryption ?   |
| * Enterprise<br>Project | default  |





| Dashboard                    |   |                                    |                        |        |
|------------------------------|---|------------------------------------|------------------------|--------|
| Elastic Cloud Server         |   | Public Images Private              | Images Ima             | ages   |
| Bare Metal Server            |   | You are advised to optimize priva  | ate images that do no  | ot sup |
| Elastic Volume Service 🔹     |   | You can create 88 more private ima | ges. For details about | the c  |
| Image Management<br>Service  |   | Delete Share                       | All EPSs               |        |
| Auto Scaling                 |   | Name J≡                            | Status C               | )S Тур |
| Key Pair                     |   | UDS-Server-3.6                     | 🕑 Nor L                | inux   |
| ECS Group                    |   | UDs_Tunnel                         | 🕑 Nor… 🛛 L             | inux   |
| Cloud Backup and<br>Recovery | , | UDS_Server                         | 🕑 Nor… 🛛 L             | inux   |
| Elastic Load Balance 🔗       |   | UDS_DB_Server                      | ✓ Nor… L               | inux   |
| Elastic IP ේ                 |   |                                    |                        |        |

Once we have completed the creation of all the images we will proceed to apply them to the ECS servers.

| Name 🔻 UDS_Serv         | ver X         | Q       | Search b  | yy Tag ⊗   |
|-------------------------|---------------|---------|-----------|------------|
| Created J=              | Enterprise Pr | Operat  | ion       |            |
| Apr 14, 2023 13:06:52 G | default       | Apply f | or Server | Modify   N |
|                         |               |         |           |            |

In the Basic Configuration:

We will indicate the type of payment for that machine, the region and availability zone in addition to its resource specifications:





|                | ff   | 1                            |                                |               |
|----------------|--|------------------------------|--------------------------------|---------------|
| Billing Mode   | Yearly/Monthly                             | Pay-per-use                  | Spot price                     | ?             |
| Region         | EU-Dublin                                  | •                            |                                |               |
|                | For low network latency and                | quick resource access, selec | t the region nearest to your   | target users. |
| AZ             | Random                                     | AZ1                          | AZ2                            | ?             |
|                |  |                              |                                |               |
|                |  |                              |                                |               |
| Specifications | Latest generation                          | ▼ vCPUs All                  | •                              | Memory        |
|                | General computing                          | General computing-plus       | Memory-optimized               | GPU-acce      |
|                | Flavor Name                                | N                            | /CPUs   Memory(GiB) JΞ         | c             |
|                | s6.small.1                                 |                              | 1 vCPUs   1 GiB                | ŀ             |
|                | s6.medium.2                                |                              | 1 vCPUs   2 GiB                | ŀ             |
|                |  |                              |                                |               |
|                |  |                              |                                |               |
| Image          | Public image Private image                 | Shared image                 |                                |               |
|                | UDS_Server(40GB)                           |                              | C Create Pr                    | ivate Image   |
|                |  |                              |                                |               |
| System Disk    | High I/O 🔻 — 40                            | + GiB IOPS limit: 2,120, IOP | S <u>burst limit</u> : 5,000 ⑦ |               |
|                | Add Data Disk You can attach 23 more VBD d | lisks or 59 more SCSI disks. |                                |               |

In the next step of the wizard we will configure the network details of the instance. At least we must indicate a valid network and subnet, which allow us to communicate with other elements, and assign a public IP to have access to the outside:

| (1) Configure Basic Settir | gs — 2 Configure Network — ③ Configure Advanced Settings — ④ Confirm   |
|----------------------------|--|
| Network<br>Extension NIC   | vpc-default (192.168.0.0/16)       C       submet-default (192.168.0.0/24)       C       Automatically assign IP address       Available private IP addresses: 233       ()         Create VPC       ()       Add NIC       NICs you can still add: 1       () |
| Security Group             | UDS-Enterprise (47184a5e-b4a3-4888-b39f-2501bd99d  C Create Security Group   |





#### NOTE:

#### The database server will not need to have a public IP.

We will create or select a "*Security Group*" with the necessary rules for each UDS component and rules. Only the UDS-Server and UDS-Tunnel servers will need entry rules and it will be important to provide access between the resource groups so that the UDS appliances can communicate with each other through their security groups:

• **UDS server.** Port: 443 (for user and administrator access).

| C UDS-Se    | erver                      |                         |                                |                            |
|-------------|----------------------------|-------------------------|--------------------------------|----------------------------|
| Summary     | Inbound Rules              | Outbound Rules          | Associated Instan              | ces                        |
|             |                            |                         |                                |                            |
| i Som       | e security group rules wil | I not take effect for E | CSs with certain specification | ns. Learn more             |
| Add Rule    | e Fast-Add Rule            | Delete                  | Allow Common Ports             | Inbound Rules: 3 Learn mor |
| Specify fil | ter criteria.              |                         |                                |                            |
| <b>T</b>    | Protocol & Port  ?         | চ                       | Туре                           | Source (?)                 |
|             |                            | IP                      | v4                             | UDS-DBServer ⑦             |
|             |                            | IP                      | v4                             | UDS-Tunnel ⑦               |
| то          | CP : 443                   | IP                      | v4                             | 0.0.0.0/0 ⑦                |
|             |                            |                         |                                |                            |

Tunnel server.Port: 443 and 10443 (443 for tunneled connections and 10443 for HTML5 connections)





| < UDS-Tu                | unnel             |                          |                                     |
|-------------------------|-------------------|--------------------------|-------------------------------------|
| Summary                 | Inbound Rules     | Outbound Rules Associate | ed Instances                        |
| Add Rule<br>Specify fil | e Fast-Add Rule   | Delete Allow Commo       | n Ports Inbound Rules: 3 Learn more |
| <u></u>                 | Protocol & Port ⑦ | 豆 Туре                   | Source (?)                          |
|                         |                   | IPv4                     | UDS-Server ?                        |
| тс                      | CP : 443          | IPv4                     | 0.0.0.0/0 ⑦                         |
| 🗌 тс                    | CP : 10443        | IPv4                     | 0.0.0.0/0                           |
|                         |                   |                          |                                     |

DbServer:

|              | < UDS-DBServer            |                          |                               |                             |     |  |  |  |
|--------------|---------------------------|--------------------------|-------------------------------|-----------------------------|-----|--|--|--|
| Summary      | Inbound Rules             | Outbound Rules           | Associated Instar             | nces                        |     |  |  |  |
|              |                           |                          |                               |                             |     |  |  |  |
| i Some       | e security group rules wi | II not take effect for E | CSs with certain specificatio | ons. Learn more             |     |  |  |  |
| Add Rule     | Fast-Add Rule             | Delete                   | Allow Common Ports            | Inbound Rules: 1 Learn more | abc |  |  |  |
| Specify filt | er criteria.              |                          |                               |                             |     |  |  |  |
| <u> </u>     | Protocol & Port (?)       | ট                        | Туре                          | Source 🥐                    |     |  |  |  |
| All          |                           | IP                       | v4                            | UDS-Server                  |     |  |  |  |
|              |                           |                          |                               |                             |     |  |  |  |





We check that all the data is correct and launch the instance:

| Configuration      | Basic 🖉                        |  |                    |                      |                   |                                 |
|--------------------|--------------------------------|--|--------------------|----------------------|-------------------|---------------------------------|
|                    | Billing Mode<br>Specifications | Yearly/Monthly<br>General computing   s6.small.1   1 vCPUs                 | Region<br>Image    | Dublin<br>UDs_Tunnel | AZ<br>System Disk | AZ2<br>High I/O, 40 GiB         |
|                    | Network 🖉                      |  |                    |                      |                   |                                 |
|                    | VPC<br>EIP                     | vpc-default (192.168.0.0/16)<br>No EIP bound to the primary network interf | Security Group     | UDS-Tunnel           | Primary NIC       | subnet-default (192.168.0.0/24) |
|                    | Advanced 🖉                     |  |                    |                      |                   |                                 |
|                    | ECS Name<br>ECS Group          | UDS-Server<br>   | Login Mode         | Password             | Auto Recovery     | Enable                          |
| Enterprise Project | default                        | ▼ C Create   | Enterprise Project |                      |                   |                                 |

Once the instance is launched, we can access the section "*ECS*" of the module "*Elastic Cloud Server*" from the HUAWEI environment and view the creation of the UDS component:

| Ela | stic Cloud Server ⑦                         |            |      |          |                                       |
|-----|---|------------|------|----------|---------------------------------------|
|     | Start Stop Restart                          | More 💌     | ]    |          |                                       |
|     | Name: UDS 🛞 Add filter                      |            |      |          |                                       |
|     | Name/ID                                     | Monitoring | AZ 🏹 | Status 🍸 | Specifications/Image                  |
|     | UDS_tunnel_3.6_2<br>7faf7f49-f0f8-4ceb-8d30 | <u>~</u>   | AZ2  | Stopped  | 8 vCPUs   16 GiB   s<br>UDs_Tunnel    |
|     | UDS_Server_3.6_2<br>a49911a7-768c-4114-a9   |            | AZ2  | Stopped  | 1 vCPUs   2 GiB   s6<br>UDS_Server    |
|     | UDS_DB_Server_3<br>592cef78-5c7e-47ed-84c   |            | AZ2  | Stopped  | 1 vCPUs   1 GiB   s6<br>UDS_DB_Server |





# Configuration of UDS servers

Once we have all the instantiated UDS components, we will proceed with their configuration.

In this configuration example, we will rely on a virtual machine deployed on the same network as the UDS servers to have direct connectivity with them.

#### • Database configuration

If you are using the database provided by the Virtual Cable team, it will already be pre-configured and you will only have to verify that you have IP connectivity (by default the network is configured by DHCP).

The default server credentials are:

- User: root
- Password: uds

This server has created a database instance ready to be used with UDS Enterprise with the following data:

- Instance name: uds
- User: uds
- Password: uds

By default, the server has its network settings via DHCP. It is recommended to always use static addressing in all UDS components.

#### • UDS Server configuration

The UDS-Server component is the main element of the UDS environment. It has a configuration wizard accessible via web browser. Before accessing said configuration wizard, we will need to confirm that the server has been assigned an IP address via DHCP.

Once we know the IP address assigned to the server (selecting the instance, in the section "*Network Interfaces*"), we will access via browser the IP address of the UDS server with port 9900

https://IP\_Server:9900



# VDI with UDS Enterprise 3.6 and Huawei Cloud



|               | Uds — Mozilla Firefox                          |      | ^ | -    | o x |
|---------------|--|------|---|------|-----|
| 😽 Uds         | × +  |      | - | +    | ×   |
| ← → ♂ ☆       | 🖲 🔏 10.0.0.10:9900/setup/page/language 🛛 💀 😒 🏠 | lii/ |   | ٢    | ≡   |
| UDS Enterpris | se Broker Setup                                |      |   |      | h   |
|               | Please, select your language<br>English        |      | , | vext |     |

From here we will indicate all the necessary data (IP data, serial to activate the subscription, credentials, etc...) to configure the server.

For more information on the configuration of the UDS server, consult the UDS Enterprise installation, administration and user manual available in the section <u>Documentation</u> from the web.

#### NOTE:

During the configuration procedure of the wizard, it will request the configuration data of the database server. In the case of using an external server, we must indicate the data of the previously configured database server (IP address, instance, user and password).





#### • UDS Tunnel Configuration

The UDS Tunnel component is the element that will provide us with secure access to virtual desktops through the Internet. It will also take care of establishing the HTML5 connection (HTML5 Transport for desktops and vApps). It has a configuration wizard accessible via web browser. Before accessing said configuration wizard we will need to confirm that the server has been assigned an IP address.

Once we know the IP address assigned to the server (selecting the instance, in the section "*Private IPv4 addresses*"), we will access via browser the IP address of the UDS server with port 9900

http://IP\_Tunnel:9900

| Uds — Mozilla Firefox   |     | ^ | - |   |
|---|-----|---|---|---|
| 😵 Uds 🗙 🕂   |     | - | + | > |
| ←       →       C <sup>2</sup> <b>10.0.0.7</b> :9900/setup/page/language <b>I</b> | ۸ ( | D | ٢ | Ξ |
| UDS Enterprise Tunnel Setup   |     |   |   |   |
| Please, select your language  |     |   |   |   |
| English   |     |   |   |   |

From here we will indicate all the necessary data (IP data, credentials, certificates, etc...) to configure the server.

For more information on the configuration of the UDS Tunnel server, consult the UDS Enterprise installation, administration and user manual in the section <u>Documentation</u> from the web.

#### NOTE:

During the configuration procedure, the wizard will request the connection data of the UDS server.





## Create base machines or templates in HUAWEI

For UDS to deploy virtual desktops on the HUAWEI platform, it is necessary to have a base machine or template on which the new desktops self-generated by UDS will be based. This base machine can be deployed in different ways. Among them, it is possible to import an existing template on another platform (using the same applications that we have used to import the different UDS components) or create a machine in the environment itself.

If we choose to import a template, it is important that we make sure that it will have a valid access mode (SSH or RDP type), in order to access it once it is hosted on the HUAWEI platform more easily or through its web console.

Another important point to take into account is the network configuration. It is necessary that it be configured to take IP addresses via DHCP.

• Base machine access and configuration

Once the base machine or template is deployed and accessible via RDP, for example, we must install all the software that we need to have available in the virtual desktops deployed by UDS, perform the template optimization configurations, which are very important for the good performance of our machines (disable unnecessary services, startup time optimization, etc...) and finally install the UDS Actor.

NOTE:

You can consult the UDS Enterprise Installation, Administration and User manual in the section on <u>Documentation</u> from the UDS Enterprise website for more details on the installation of UDS Actor.





During the configuration of the UDS Actor we must indicate in the connection data against UDS Server the local DNS address/name or IP or public DNS depending on the type of deployment (in the case of using IP addresses instead of names, it must be ensured that these addresses are not dynamic and change when the servers are turned off/on).

| 💎 UDS Actor Configu | ration Tool                  | ? | Х      |
|---------------------|------------------------------|---|--------|
| UDS Server Ac       | lvanced                      |   |        |
| SSL Validation      | anore certificate            |   | $\sim$ |
| UDS Server 10       | 0.0.0.10                     |   |        |
| Authenticator A     | dministration                |   | $\sim$ |
| Username ud         | dsadmin                      |   |        |
| Password ••         |                              |   |        |
|                     |                              |   |        |
|                     |                              |   |        |
| Register with       | UDS Test configuration Close |   |        |

#### NOTE:

If we want to view the configuration of the UDS Actor in an Ubuntu OS through RDP, we will have to execute the following command from a console:

Ubuntu 18: sudo QT\_X11\_NO\_MITSHM=1 /usr/sbin/UDSActorConfig

Ubuntu 20: xhost + && sudo QT\_X11\_NO\_MITSHM=1 /usr/sbin/UDSActorConfig

Once the configuration and installation of the UDS Actor is done, we can turn off the base or template machine, later UDS will create a snapshot of it to create the publication machine





# **UDS Enterprise Administration**

# HUAWEI Service Provider Integration

To integrate HUAWEI as a UDS Enterprise service provider, we must access the UDS administration. To do this, we access the IP address or name of the UDS Server component via a web browser and authenticate ourselves with an administrator user (in the first access we will use the system administrator user indicated in the UDS server configuration wizard).

| UDS UDS |                   |          | 🛨 UDS Client | i About | English 👻        |
|---------|-------------------|----------|--------------|---------|------------------|
|         |                   |          |              |         |                  |
|         | UDS En            | terprise |              |         |                  |
|         | Username *<br>uds |          |              |         |                  |
|         | Password          |          |              |         |                  |
|         | Log               | n        |              |         |                  |
|         |                   |          |              | © Virt  | ual Cable S.L.U. |

Once validated in the UDS login portal, we will access the "*dashboard*" from the user menu.







Within the UDS administration, we access the menu "*Services*" and click on "*New*" to register a new "*service provider*". We select "*OpenStack Platform Provider*":

| Service providers                  |  |  |  |  |  |  |
|------------------------------------|--|--|--|--|--|--|
| New 🗸 📝 Edit 🖉 Perr                |  |  |  |  |  |  |
| DpenStack LEGACY Platform Provider |  |  |  |  |  |  |
| OpenStack Platform Provider        |  |  |  |  |  |  |
| A CONTRACTOR OF A                  |  |  |  |  |  |  |

In order for UDS to connect with the HUAWEI platform and to be able to automatically deploy virtual desktops, it will be necessary to indicate the following information:

| Name *                       |
|------------------------------|
|                              |
|                              |
| Comments                     |
| Comments for this element    |
| Identity and point *         |
|                              |
| https://iam.myhuaweicloud.eu |
|                              |
| Access interface             |
| public                       |
|                              |
| Domain *                     |
| hid_y1k8m06oj4b82gr          |
| <u> </u>                     |
| Username *                   |
| pwiorgarizatez               |
|                              |
| Password *                   |
| •••••                        |
|                              |





Main: We will indicate a descriptive name, and the connection data with the HUAWEI account such as the Identity Endpoint (for Europe it is <u>https://iam.myhuaweicloud.eu</u>), the domain in the Huawei environment and the user with sufficient permissions to access.

#### NOTE:

It is possible to use the same user that we have used to import the UDS machines, as long as we have all your data. In this example we will create a new user.

 Advanced:We will indicate the Project ID, the concurrency of creation and deletion, the connection timeout, if necessary a proxy server (for communication between the UDS and HUAWEI server) and the region of our ECS environment.

| IAM                           | Projects / View Project Information |                       |  |  |  |
|-------------------------------|-------------------------------------|-----------------------|--|--|--|
| Users                         | Basic Information                   |                       |  |  |  |
| User Groups                   | Project Name eu-west-101            | Project ID            |  |  |  |
| Permissions 💌                 | Description                         | Status Normal         |  |  |  |
| Projects                      | User Permissions                    |                       |  |  |  |
|                               | Username .I=                        | User ID .I= Operation |  |  |  |
|                               |                                     |                       |  |  |  |
| Edit provider                 |                                     |                       |  |  |  |
| Main                          | Advanced                            |                       |  |  |  |
| Project Id<br>71660cc7697d4c8 | 35a40f43b54637ba0f                  |                       |  |  |  |
| Region                        |                                     |                       |  |  |  |
| eu-west-101                   |                                     |                       |  |  |  |
| Subnets names                 |                                     |                       |  |  |  |
| Yes                           |                                     |                       |  |  |  |
| Creation concurrency *        |                                     |                       |  |  |  |
| 10                            |                                     |                       |  |  |  |
| Removal concurrency *         |                                     |                       |  |  |  |

| оху   |                 |     |  |  |  |
|---|-----------------|-----|--|--|--|
| Proxy used for connection to azure for HTTPS connections (use PROTOCOL://host:port, i.e. http://10.10.0.1:8080) |                 |     |  |  |  |
| imeout *  |                 |     |  |  |  |
| 10  |                 |     |  |  |  |
|   |                 |     |  |  |  |
| Test  | Discard & close | Sav |  |  |  |

NOTE: In order to show the name of the subnets created in the HUAWEI environment, we must enable the "Subnet names" option, otherwise the IDs of the same will be shown.





We perform a connection test with the service provider to confirm the correct integration and save.



#### NOTE:

Even if the test does not come out correct, we can save the provider and thus not lose the indicated data.

## Creation of base services

When we have a*service provider*" valid connected with HUAWEI platform, we can create services based on "OpenStack Live Volume". To do this, we access the provider (with double click or right button – "*details*") and in the tab "*Services*" click on "*New*" – "*OpenStack Live Volume*".







To create a base service of type "OpenStack Live Volume" we will need to indicate:

- o Main:
  - Yam: Friendly name of the base service.
  - **Region :** Location of the environment on which to work.
  - **project:** Project ID within HUAWEI.
  - Instance type: Amount of resources that the virtual desktops automatically deployed by UDS will have (this list will show all the types of machines available. Therefore, it must be ensured that the type chosen is appropriate for the service to be deployed).
  - **Availability Zone:** area where the machines will be located.

| Main                               | Machine        |
|------------------------------------|----------------|
| Tags                               |                |
| Tags for this element              |                |
| Name *                             |                |
| Xubuntu 22.04                      |                |
| Comments                           |                |
| Comments for this ele              | ment           |
| Region<br>eu-west-101              |                |
| Project<br>71660cc7697d4c85a4      | 0f43b54637ba0f |
| Availability Zones<br>eu-west-101b |                |





- o Machines:
  - Volume: previously created template machine.
  - **network:** Existing subnet to which the virtual desktops will connect.
  - **Flavor:** resources that the machine will have.
  - **Security Groups:** Security group to be assigned to virtual desktops.
  - Machine Names: identification name of the machines within the HUAWEI environment.
  - Name Length: length of numeric characters to be appended to the machine name.

| Main                | Machine |
|---------------------|---------|
| Volume *            |         |
| Kumander_Linux_temp | late    |
| Network *           |         |
| subnet-default      |         |
| Elavor *            |         |
| Flavor *            |         |
| so.mealum.z         |         |
| Security Groups *   |         |
| UDS-Enterprise      |         |
| Machine Names *     |         |
| ubuntu-             |         |
| Name Length *       |         |
| 2                   |         |
| 5                   |         |

We save and we will already have a valid base service to automatically deploy virtual desktops in HUAWEI.





# Creation of Pool of Services

Before proceeding to create a pool of services (to publish virtual desktops), it will be necessary to have at least one "*Authenticator*" with user groups (to validate and be able to assign the service to users), a "*OS Manager*" (to indicate the OS and the persistence policy of the generated desktops) and a "*Transports*" (to connect to the desktop) previously configured. To see more details on how to configure these elements, you can access the UDS Enterprise Installation, Administration and User Manual in the section on <u>Documentation</u> from our website.

When we have the elements mentioned above ("*Authenticator*", "*OS Manager*" and "*Transports*") we can now create "*Service Pools*". To do this, we access the section "*Pools*", we open the tab "*Service Pools*" and click on "*New*".



In the tab "*Main* "We will indicate the name of the service (this name will be visible to users) and we will select the previously created base service (in this case the HUAWEI platform and the xUbuntu20 base service) and a"*OS Manager*" existing (in this example one will be used for Linux OS and of non-persistent type).



# VDI with UDS Enterprise 3.6 and Huawei Cloud



| Main                   | Display              |
|------------------------|----------------------|
| Tags                   |                      |
| Tags for this element  |                      |
| Name *                 |                      |
| Xubuntu                |                      |
|                        |                      |
| Short name             |                      |
| Short name for user se | ervice visualization |
|                        |                      |
| Comments               |                      |
| Comments for this ele  | ment                 |
| Paga agruída           |                      |
| Base service           |                      |
| - HUAWEI CLOUD\XUDI    | untu 22.04           |
| OS Manager             |                      |
| Linux OS Manager       |                      |
|                        |                      |
| Publish on creation    |                      |
| Yes                    |                      |
|                        |                      |

The parameters of the tabs "*Advanced*" and "*display*" We can leave them by default. In the tab "*Availability*" we will indicate the initial desktops that UDS will generate and the cache ones.

In this example we will indicate that UDS automatically creates 4 desktops and we always have at least 2 available in cache.

| New service Pool |                      |                 |                 |      |  |  |  |
|------------------|----------------------|-----------------|-----------------|------|--|--|--|
| <                | Display              | Advanced        | Availability    | >    |  |  |  |
| Initial a        | available services   |                 |                 |      |  |  |  |
| 4                |                      |                 |                 |      |  |  |  |
| Servic           | es to keep in cache  |                 |                 |      |  |  |  |
| 2                |                      |                 |                 |      |  |  |  |
| Service<br>0     | es to keep in L2 cao | she             |                 |      |  |  |  |
| Maxim<br>15      | um number of serv    | ices to provide |                 |      |  |  |  |
|                  |                      |                 |                 |      |  |  |  |
|                  |                      |                 | Discard & close | Save |  |  |  |

Selecting the "*Service Pool*" and opening the tab "*publications*" we will check if the publication has been generated correctly. When in a state "*valid*", the system will start to auto-generate the virtual desktops indicated in the cache parameters.





| < | - 👿 Deskto   | p xUbuntu    |              |           |
|---|--------------|--------------|--------------|-----------|
| < | Groups       | Transports   | Publications | Scheduled |
|   | 🔹 Publicatio | ons          |              |           |
|   | New          | 🗴 Cancel     | Changelog ↑↓ | Export    |
|   | Revision     | Publish date | State        | Reason    |
|   | 1            |              | Valid        |           |

In the tab "*Cache*" we will be able to see how the desktops begin to be generated.

| <b>~</b> | Desktop xUb       | untu            |                     |                 |              |              |               |
|----------|-------------------|-----------------|---------------------|-----------------|--------------|--------------|---------------|
| <        | Assigned services | Cache           | (                   | Groups Tr       | ansports     | Publications | Scheduled     |
|          | UCached service   | S               |                     |                 |              |              |               |
|          | Logs t E          | <b>kport</b> De | F                   | ilter           | 1 - 4 of     | 14  <        | < > >1        |
|          | Creation date     | Revision Uniq   | ue ID IP            | Friendly name   | e State      | Cache level  | Actor version |
|          | 🗌 K. 1525. 1995   | 1 0a:5          | ie:48:93:bb:0a unkr | own xUbuntu-00  | 0 Waiting OS | 1            | 3.5.0         |
|          | 🗌 K. 15,20, 199   | 1 0a:b          | c:a2:76:2a:0a 10.0  | 0.35 xUbuntu-00 | 1 Valid      | 1            | 3.5.0         |
|          | 🗌 K. 15, 15, 155  | 1 0a:b          | 0:79:67:ff:76 unkr  | own xUbuntu-00  | 2 Waiting OS | 1            | 3.5.0         |
|          | 0 K. 15:5. 199    | 1 Oa:b          | d:82:83:8f:ee unkr  | own xUbuntu-00  | 3 Waiting OS | 1            | 3.5.0         |

In the HUAWEI environment we will also see how virtual desktops are generated...





Once the desktops are in the state "*valid*" (that is, the UDS Actor installed in the template has finished applying the necessary configuration), they will be available for users to access.

| 4 | Desktop xUbu      | untu     |                   |            |               |            |             |                           |
|---|-------------------|----------|-------------------|------------|---------------|------------|-------------|---------------------------|
| < | Assigned services |          | Cache             | Groups     | Transports    | Pu         | blications  | Schedule                  |
|   | Cached services   | S        |                   |            |               |            |             |                           |
|   | Logs t            | port     | Delete            | Filter     |               | 1 – 4 of 4 | K           | $\langle \rangle \rangle$ |
|   | •                 |          |                   |            |               |            |             |                           |
|   | Creation date     | Revision | Unique ID         | IP         | Friendly name | State      | Cache level | Actor version             |
|   | 010/15/25/253     | 1        | 0a:5e:48:93:bb:0a | 10.0.0.180 | xUbuntu-000   | Valid      | 1           | 3.5.0                     |
|   | ■ 10,15,75,6,255  | 1        | 0a:bc:a2:76:2a:0a | 10.0.0.35  | xUbuntu-001   | Valid      | 1           | 3.5.0                     |
|   | ☐ 10,15,75,6 2553 | 1        | 0a:b0:79:67:ff:76 | 10.0.0.150 | xUbuntu-002   | Valid      | 1           | 3.5.0                     |
|   | 10,15/07 253      | 1        | 0a:bd:82:83:8f:ee | 10.0.0.66  | xUbuntu-003   | Valid      | 1           | 3.5.0                     |

We will access the services window with a user (it is not possible to use the system administrator super-user) and we will see the available service.



#### NOTE:

In order for the service to be viewed by users, the "Service Pool" created must be assigned a user group ("Groups" tab) and a transport ("Transports" tab).





We access it by clicking on the image (in this example an RDP type transport has been configured).

| sxcef1zkbtkk1581 - 1 💀 | 127.0.0.1:39807 - Conexión a Escritorio remoto |  |
|------------------------|--|--|
| ۲                      |  |  |
| Q                      |  |  |
| Favorites              | LibreOffice Writer                             |  |
| All Applications       | Pidgin Internet Messenger                      |  |
| Settings               | Software                                       |  |
| C Accessories          |  |  |
| 违 Games                |  |  |
| 🥵 Graphics             |  |  |
| Internet               |  |  |
| Multimedia             |  |  |
| M Office               |  |  |
| <li>System</li>        |  |  |
|                        |  |  |
|                        |  |  |
|                        |  |  |
| 🙁 vc                   | III 🔒 🔮  |  |

#### NOTE:

If we are outside the VPC network configured in HUAWEI, it will be necessary to use the tunneled transport (as can be seen in the screenshot of the connection example, it is connecting to 127.0.0.1 since the connection is made via Tunnel).





# About VirtualCable

<u>Virtual Cable</u> is a company specialized in the digital transformation of the workplace. The company develops, supports and markets UDS Enterprise. Its team of experts has designed VDI solutions 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 in virtualization technologies. Millions of Windows and Linux virtual desktops with UDS Enterprise are deployed all over the world every day.