

Remote Desktop Access Platform

Launching the Leostream[®] Platform from the Microsoft Marketplace

Simplifying a Proof-of-Concept for HPC Workloads in the Azure Cloud

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Patents

Leostream software is protected by U.S. Patent 8,417,796.

Overview

The Leostream Platform Azure Application on the Microsoft Marketplace simplifies the deployment of a full Leostream environment and virtual desktop in your Azure Subscription. The offering includes a 30-day free trial license for the Leostream Platform

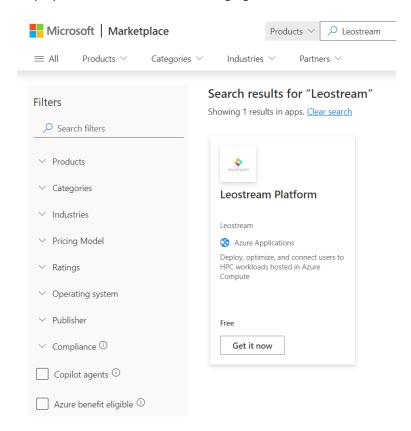
You are responsible for all Azure compute, storage, and other costs associated with your Leostream deployment.

You can deploy the Leostream Platform Azure Application into an existing Resource Group and VNET, or instruct the Leostream Platform Azure Application to deploy a new resource group and VNET. In addition to the Resource Group and VNET, the Leostream Platform Azure Application deploys the following Azure resources.

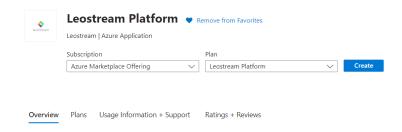
Name	Туре	Purpose
LeostreamCB	Virtual machine	Connection Broker compute
LeostreamCB-osdisk	Disk	Connection Broker storage
Leostream-CB-nsg	Network security group	Connection Broker security group allowing inbound traffic from VNET
leostream_cb	Network interface	Connection Broker network interface
LeostreamGW	Virtual machine	Leostream Gateway compute
LeostreamGW-osdisk	Disk	Leostream Gateway storage
Leostream-GW-nsg	Network security group	Allows inbound traffic on 443, 80, and the random port range required for portforwarded display protocol traffic, by default 20001-23000
Leostream-GW-ip	Public IP address	Public IP for accessing your Leostream Platform web portal and client
leostream_gw	Network interface	Leostream Gateway network interface
Leo-desktop	Virtual machine	Windows virtual desktop with NVIDIA drivers installed
Leo-desktop-osdisk	Disk	Virtual desktop storage
Leo-desktop-nsg	Network security group	Virtual desktop security group allowing inbound VNET traffic and RDP traffic from the Leostream Gateway, only
Leo-desktop	Network interface	Virtual desktop network interface
vnet01	Virtual network	Optionally deployed VNET

Launching the Leostream Platform

You can find the Leostream Platform Azure Application in the Microsoft Marketplace by searching for Products named "Leostream" in the <u>Microsoft Marketplace</u>. The Leostream Platform tile is displayed, as shown in the following figure.

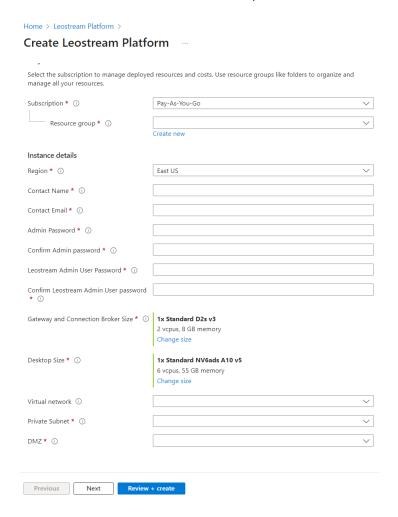


- 1. Click the **Get it now** button to start your deployment.
- 2. If you are not signed in, you are prompted to sign into your Azure account. Sign in to continue your deployment.
- 3. After signing in, enter your contact informtaion in the **Confirm your details to continue** dialog and click the **Get it now** button. The web page updates to display the Leostream Platform Azure Application, as shown in the following figure.

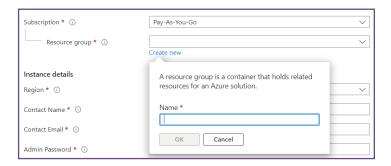


- 4. Read through the Overview, Plans, and Usage Information Support details. Then, to begin:
 - a. Select the **Subscription** to use for your deployment.
 - b. The only **Plan** available is the **Leostraem Platform** plan.
 - c. Click Create.

The Create Leostream Platform form opens, as shown in the following figure.



- 5. Ensure your desired Subscription is selected from the **Subscription** drop-down menu.
- 6. Use the **Resource group** drop-down menu to select the Resource Group where you want to deploy your Leostream environment, or click the **Create new** link to create a new Resource Group. If creating a new Resource Group, in the dialog that opens, shown in the following figure, create the group, as follows:
 - a. Enter the Resource Group name in the **Name** edit field.
 - b. Click OK.



7. Select the region for your deployment from the **Region** drop-down menu.



If you do not see your desired region, please contact sales@leostream.com.

- 8. In the Contant Name field, enter your full name. This is the name that will be associated with the Leostream Serial number generated for your 30-day trial.
- 9. In the Contact Email field, enter your business email address. This is the email address that will be associated with the Leostream Serial number generated for your 30-day trial.
- 10. In the Admin Password edit field, enter the password to use for the administrator account for the operating system of the three virtual machines in your Leostream deployment, the Connection Broker, Leostream Gateway, and Windows Leostream Desktop.

Record this password in a secure location as it is used in the following section (Testing the Desktop Connection).

11. In the **Confirm Admin password** edit field, retype this administrator password.

Mail This password must be between 12-128 characters and include an uppercase, lowercase, number, and special character.

- 12. In the Leostream Admin User Password edit field, enter the password for the local admin account used to log into your Leostream Administrator Web portal.
- 13. In the Confirm Leostream Admin User password edit field, retype this admin password.

This password must be between 12-128 characters and include an uppercase, lowercase, number, and special character.

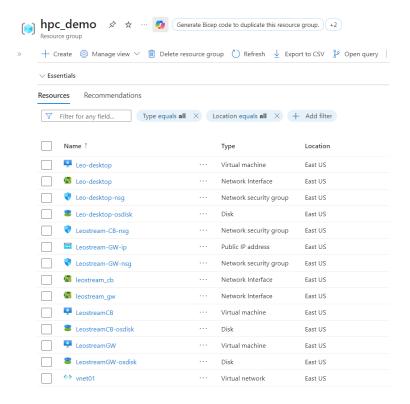
14. The Gateway and Connection Broker Size field, by default, selects a Standard D2s V3 Azure instance size. This is currently the only size supported for the Leostream Gateway and Leostream Connection Broker. The Connection Broker and Leostream Gateway are launched on individual virtual machines using this size



If you prefer a different size, please contact sales@leostream.com.

- 15. The **Desktop Size** field, by default, selects the Standard NV6ads A10 v5 Azure instance size. This size is optimized for graphics visualization. During deployment, NVIDIA drivers are installed so the desktop is ready to use.
 - Ensure that your Subscription has sufficient quota to launch a Standard_NV6ads_A10_v5 instance.
- 16. From the Virtual network drop-down menu, select the VNET where you want to deploy your Leostream Platform. To create a new VNET, select the (New) vnet01 option.
 - The name of the new VNET may by slightly different if your selected Resource Group already contains a virtual network named vnet01.
- 17. From the **Private Subnet** drop-down menu, create a new subnet or select an existing subnet in your selected virtual network where the Connection Broker and virtual desktop will be deployed.
- 18. From the DMZ drop-down menu, create a new subnet or select an existing subnet in your selected virtual network where the Leostream Gateway will be deployed. Virtual machines in this subnet can be assigned a public IP address.
- 19. Click Review + create.
- 20. In the **Review + create** form, click **Create**.

The full deployment takes a number of minutes. After the deployment completes, your Resource Group includes all the elements needed for your Leostream Platform, as shown for example in the following figure.



The deployment also completes the following initialization steps for your Leostream Platform.

- 1. Connection Broker forwarding is enabled in your Leostream Gateway.
- 2. The Leostream Gateway is added on the Connection Broker > Setup > Gateways page.
- 3. A Leostream Agent is installed on the Windows virtual desktop, and registered with your Connection Broker.
- 4. An Enrolled Desktops center is added to the Connection Broker, to inventory the Windows virtual desktop.

Additional configuration information is available in the following section or in the <u>Leostream Quick</u> Start Guide for Microsoft Azure.

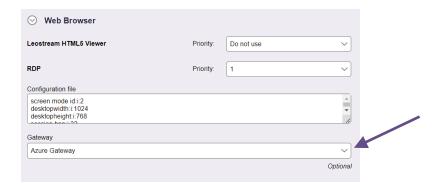
Testing the Desktop Connection

After the installation completes, to log into your Leostream Platform, open a web browser and navigate to the Public IP Address of your Leostream Gateway, shown in the Outputs tab after the deployment. To log in, the credentials are, as follows:

- Username: admin
- Password: The password you entered in the Leostream Admin User Password field during deployment.

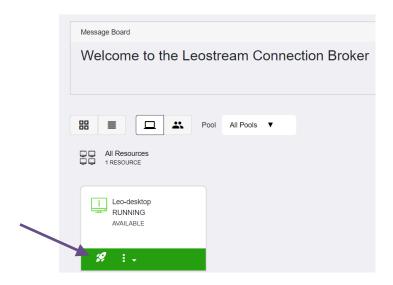
The following procedure allows you to test the performance of the desktop connection with minimal changes to the Connection Broker configuration. It is not a production configuration.

- 1. Go to the > Configuration > Protocol Plans page.
- 2. Click the **Edit** link for the Default protocol plan.
- 3. In the **Web Browser** section, select the **Azure Gateway** from the **Gateway** drop-down menu, as shown in the following figure.



- 4. Click Save.
- 5. Go to the > Resources > Users page.
- 6. Click the Create User link.
- 7. In the **Edit User** form:
 - a. Enter a display name for the desktop user in the **Name** edit field.
 - b. Enter leo-desktop in the Login name field.
 - c. In the Password and Re-type password edit fields, enter the password you specified in the Admin Password edit field when you launched your Leostream Platform deployment
 - d. Click Save.
- 8. To launch a connection to the desktop:
 - a. Open a web browser and point it at your Leostream Gateway Public IP address.
 - b. Enter leo-desktop in the User Name edit field.
 - c. Enter the leo-desktop user's password from the previous step 7 into the **Password** edit field.

- d. Click Sign in.
- e. The Leostream Web client displays the Leo-desktop virtual machine. Click the Rocket button to launch the RDP connection.



f. The Default protocol plan downloads an RDP file which you can use to launch the RDP client (mstsc.exe). Enter the leo-desktop user's password into the RDP client to finalize the login.

You can modify your Default protocol plan to launch the Leostream HTML5 viewer to experience SSO and an in-browser connection, however the HTML5 viewer is not suitable for high-performance graphics workflows.

The Leostream Platform supports a number of additional display protocols that are appropriate for high-performance compute and graphics workloads. Reach out to sales@leostream.com to learn more.

Important Note: You are responsible for all compute, storage, and additional Azure costs associated with your Leostream Platform environment. Ensure that you deallocate the virtual machines when not in use, particularly the Leo-desktop virtual machine. Because the Leo-desktop is inventoried in your Connection Broker using the Enrolled Desktops center, you must Stop this virtual machine, and the Connection Broker and Leostream Gateway, in the Azure portal to return to a deallocated state.

Recommended Next Steps

To finalize your proof-of-concept, consider following through the <u>Leostream Quick Start Guide for Microsoft Azure</u>. In particular:

- Connect your Leostream Platform to your Entra ID for user authentication (see <u>Using Entra ID and Azure MFA with Leostream</u>).
- Add an Azure Center for the Azure region containing your Leostream Deployment. Your Leodesktop is then inventoried from your Azure Center and you may delete the Enrolled Desktops center.
 - When the Leo-desktop is inventoried from an Azure Center, you can use the Connection Broker to power control the virtual machine an automatically return it to a deallocated state without returning to the Azure portal.
- Configure Power Control and Release Plans to log out idle users and automatically deallocate the Leo-desktop virtual machine when a user logs out.

The Leostream Platform is a feature rich solution that can model persistent and non-persistent workflows, automate capacity in Azure, and optimize resource usage across hybrid infrastructures. To get the most out of your Leostream experience, please contact info@leostream.com to be put in contact with a Leostream expert.