

HOW TO

Configure

Devolutions Gateway



Devolutions Gateway provides Just-in-Time (JIT) access for Remote Desktop Protocol (RDP) connections, significantly reducing direct RDP server network exposure. Combined with Devolutions Server and Remote Desktop Manager, it can replace a traditional VPN or Microsoft RD Gateway while offering the ability to enforce multi-factor authentication (MFA).

Installing and Configuring the Devolutions Gateway Service

To install the Devolutions Gateway service on the same system as Devolutions Server, follow the steps below.

1. Launch the **Devolutions Server Console** and navigate to the **Companions** tab.

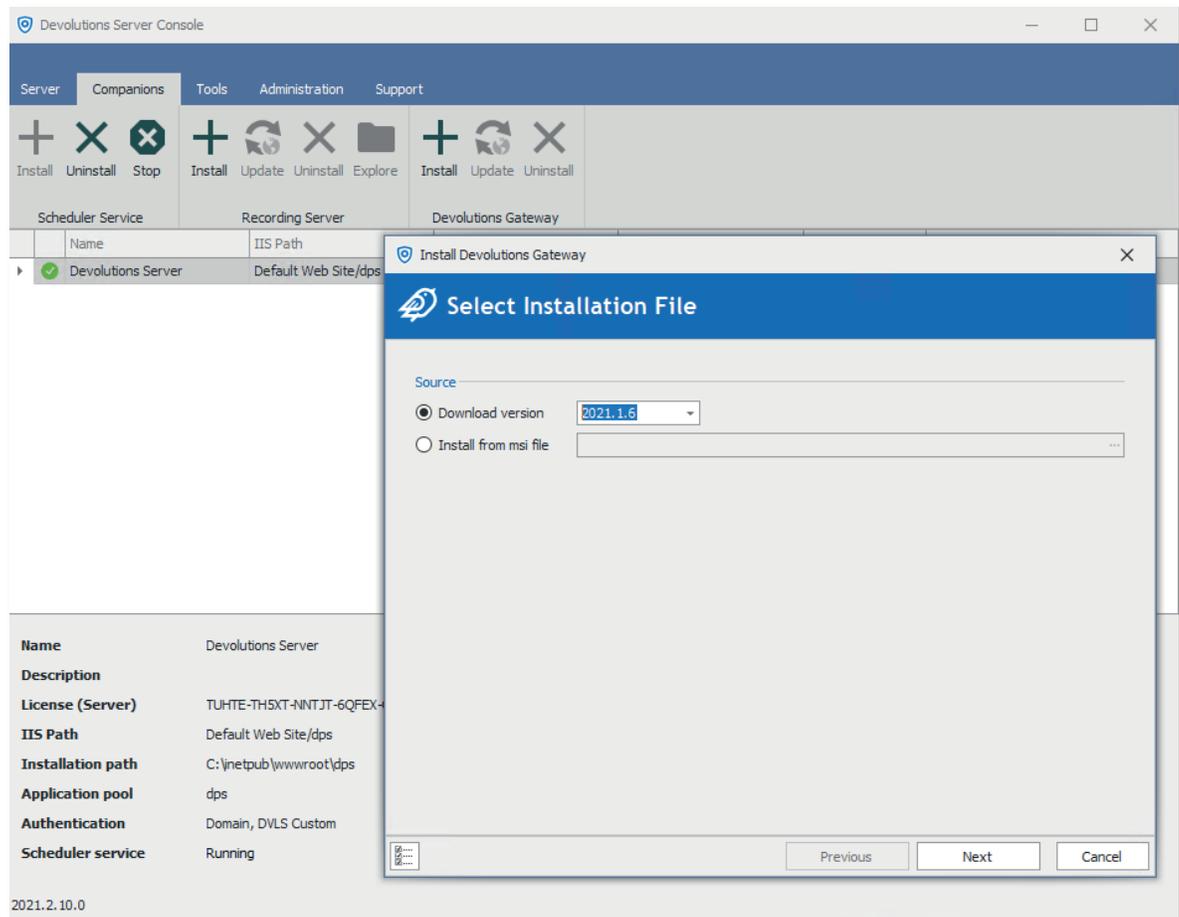
Devolutions Server Console						
Companions						
Scheduler Service		Recording Server		Devolutions Gateway		
Name	IIS Path	Version	Expiration	Database Version	Path	
Devolutions Server	Default Web Site/dps	2021.1.20.0	3/31/2022	687	C:\inetpub\wwwroot\dps	

Name	Devolutions Server	Version	2021.1.20.0
Description		Runtime version	v4.0
License (Server)	TUHTE-TH5XT-NNTJT-6QFEX-GY256	Database Connections	
IIS Path	Default Web Site/dps	Maintenance Tools	OK
Installation path	C:\inetpub\wwwroot\dps	Scheduler service	OK
Application pool	dps	Web application	OK
Authentication	Domain, DVLS Custom	Encryption Configuration	OK
Scheduler service	Running	Console Password	Disabled

2021.2.10.0

2. Once in the **Companions** tab, click on the **Install** button under the **Devolutions Gateway** section.

You will be presented with an option to download the latest version, with 2021.1.6 the latest offered at the time of writing, and click **Next** to start the installation.



3. Configure the Devolutions Gateway Listeners as necessary. The Devolutions Gateway service may be configured in a variety of ways. The default 0.0.0.0 address used for HTTP and TCP listeners instructs the Devolutions Gateway service to listen on any available network interface for incoming connections.

- **External URL:** <https://gateway.atademos.com:7171>



Typically, when the Devolutions Gateway service is installed on the same server as Devolutions Server, IIS will already be using port 443. To share this port, Application Request Routing (ARR) would need to be configured on IIS. Therefore, it is recommended to use port 7171 and avoid any port conflicts.

- **HTTP Listener:** `https://0.0.0.0:7171`
- **TCP Listener:** `tcp://0.0.0.0:8181`
- **Certificate file:** `C:\Data\certificate.pfx`
- **Certificate password:** `<password>`
- **Private key file:** `N/A`

If HTTPS is chosen for the HTTP listener, then a Certificate file and potentially a certificate password will need to be provided (if the certificate is protected via a password).



By using a PFX certificate file format, a separate private key file is not necessary to be included as this format bundles the public, private, and any necessary intermediate certificates. If you do not use this format then you will be prompted to choose a private key file.

Install Devolutions Gateway

Devolutions Gateway Listeners

i Devolutions Gateway can be deployed in many different ways, please refer to the [documentation](#) for more details.

External url

Devolutions Gateway Listeners

HTTP listener

TCP listener

Certificate Configuration

Certificate file

Certificate password

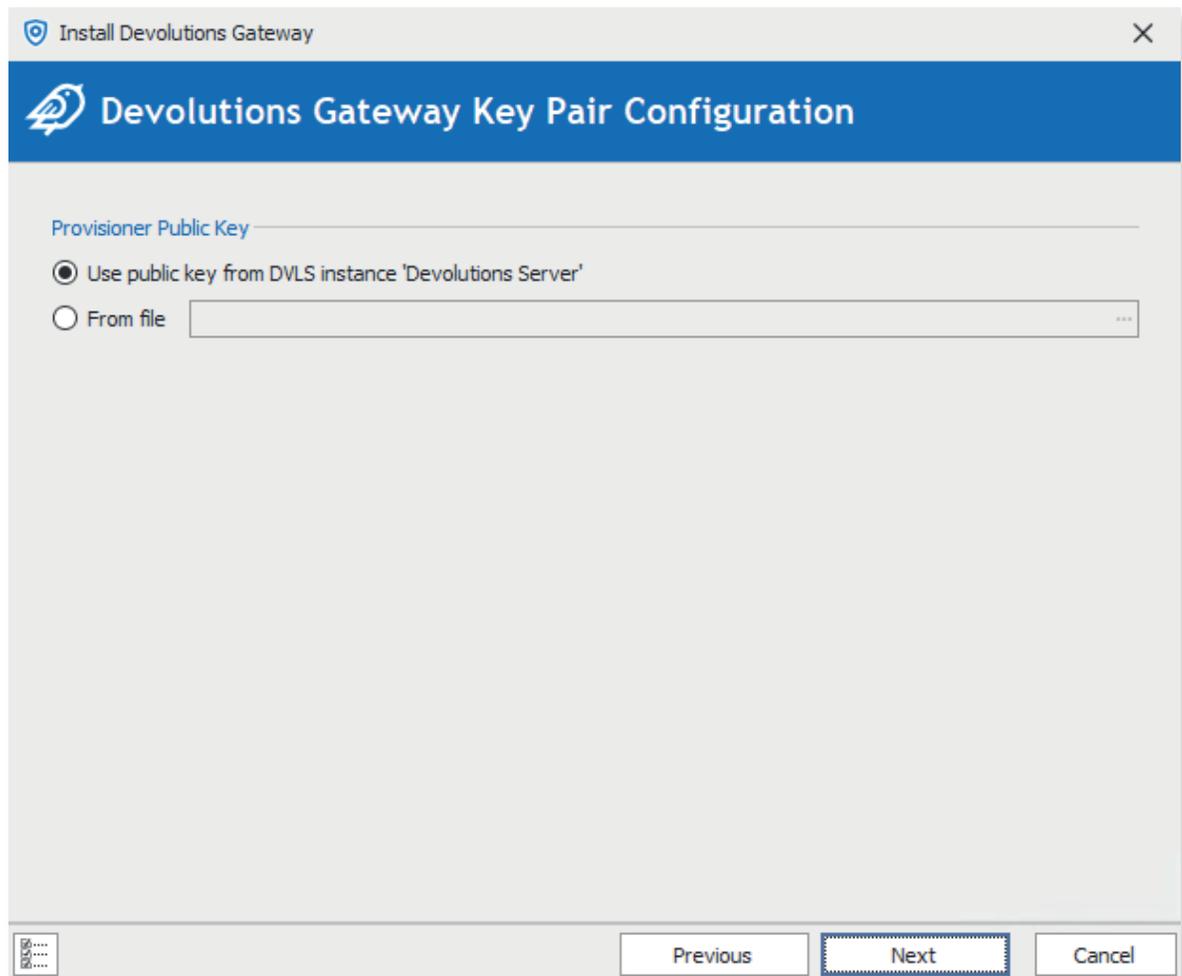
Private key file

Previous Next Cancel



Devolutions Gateway is configured to accept JSON Web Tokens (JWTs) signed by Devolutions Server after authentication and authorization. Unlike the Microsoft RD Gateway, Devolutions Gateway is not susceptible to brute-force or password spraying attacks because authentication is done separately in Devolutions Server.

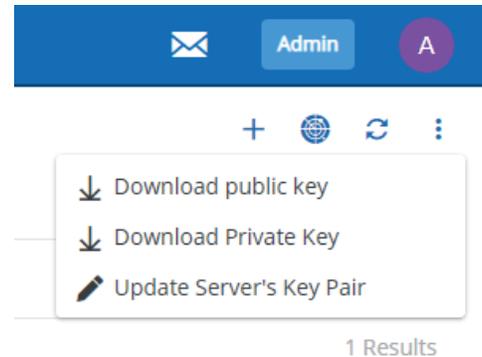
4. If Devolutions Gateway is installed on the same server as Devolutions Server, then you may automatically retrieve the DVLS public key via the **“Use public key from DVLS instance ‘Devolutions Server’”** option as shown below.





If the Devolutions Gateway service is installed on a separate system, retrieve the public key by navigating to the **Administration** → **Gateway** section of the DVLS web interface, click the three dots more options menu in the upper-right, and choose **Download Public Key**.

A file, `gateway_public_key.pem`, may be used in the **From file** option in the **Devolutions Gateway Key Pair Configuration** screen of installation as shown below.

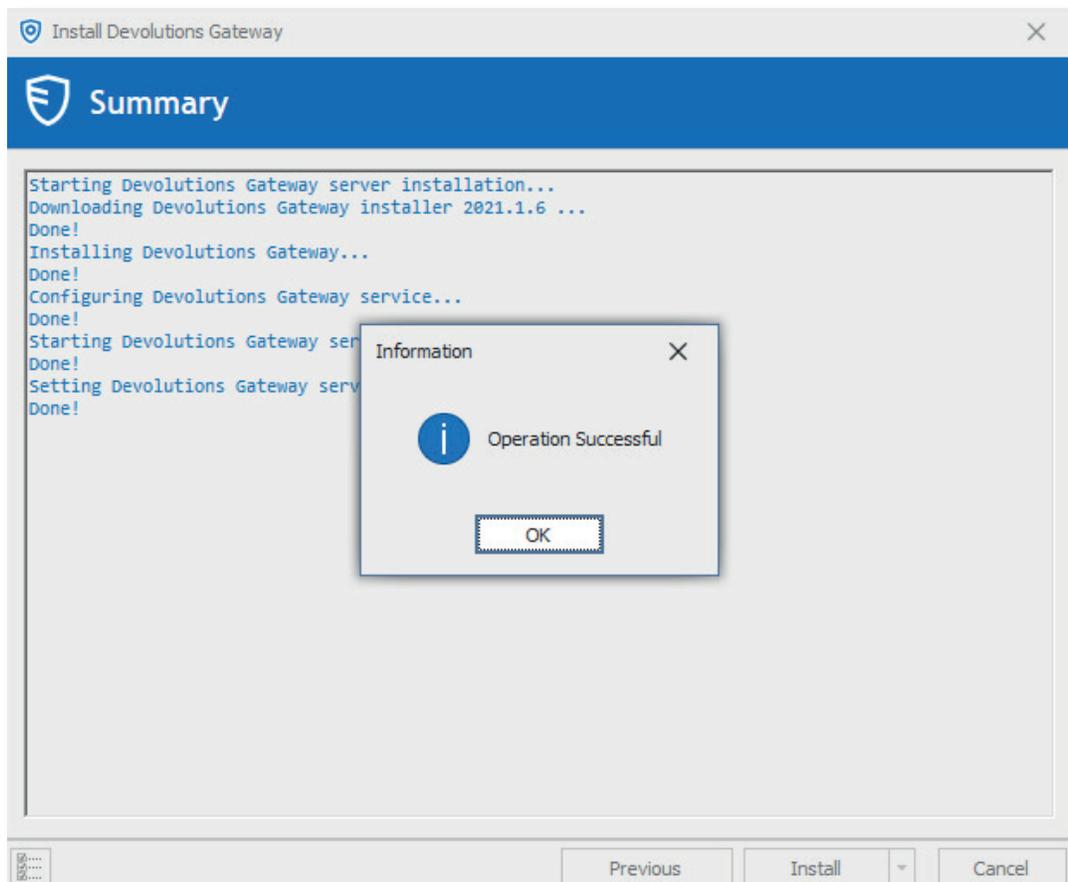
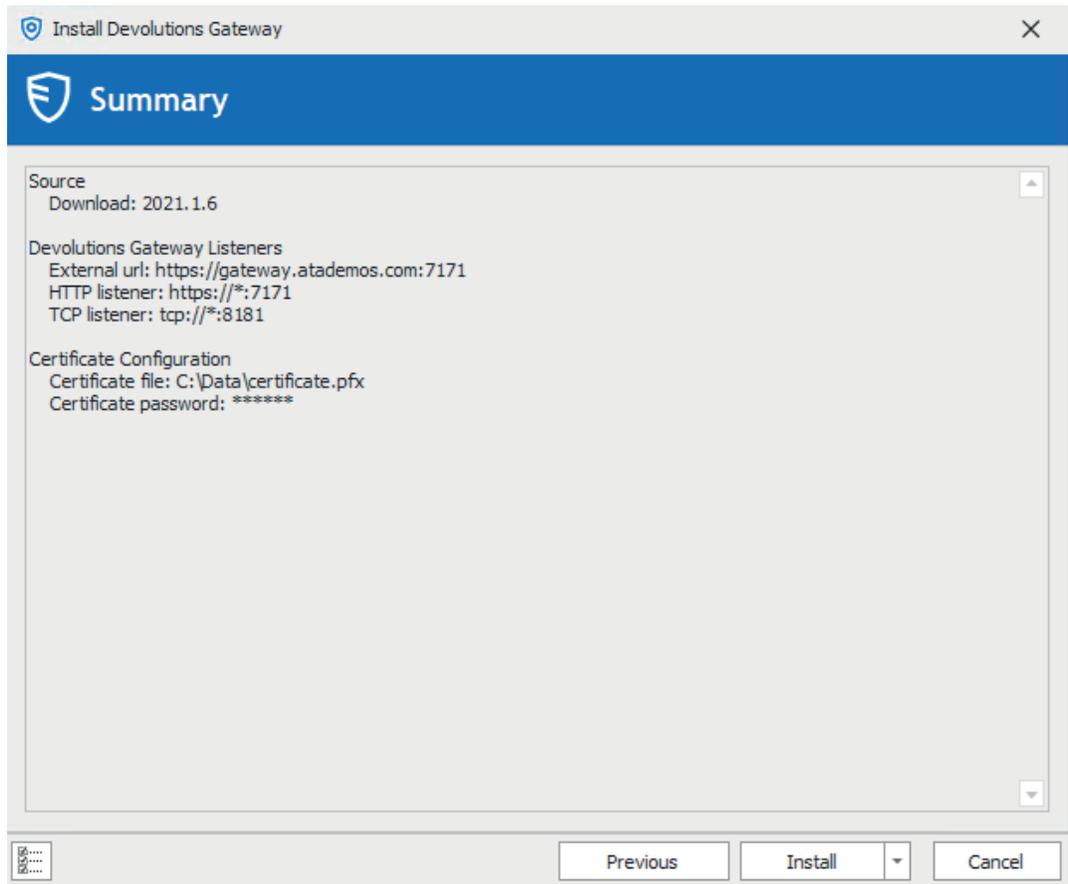


5. If the summary of the Devolutions Gateway service is correct, click the **Install** button to finish the service installation. The installation automatically performs a number of actions, notably the following:

- Create a Windows firewall rule, allowing access to all ports specifically for the Devolutions Gateway service.
- Install Devolutions Gateway as a Windows service running as the Local System account and with the single parameter `--service`.
- Generate a configuration folder, `C:\ProgramData\Devolutions\Gateway`, that contains a `gateway.json` and `gateway.log` that contain the configuration and service logs.

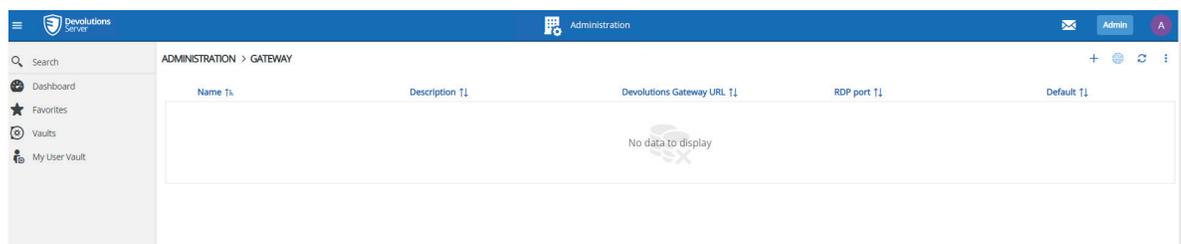


By passing the `--service` parameter, the Devolutions Gateway service is instructed to read the configuration from the `gateway.json` file. You may run the Devolutions Gateway executable on its own using specific parameters, but this is typically used for testing only.



Adding Devolutions Gateway to Devolutions Server

1. In the Devolutions Server web interface navigate to **Administration** → **Gateway** to add a new Devolutions Gateway Service.



2. Click the Add (+) button to enter details on the Devolutions Gateway service. Below are the values as shown in this article, yours will vary according to your configuration and needs.

- **Name:** Gateway
- **Description:** <blank>
- **Set as default:** Checked (default - multiple Devolutions Gateway services are supported)
- **Devolutions Gateway URL:** <https://gateway.atademos.com:7171>
- **TCP Listening Port:** 8181
- **Generated token duration (minutes):** 5 (default)
- **Health check interval (minutes):** 60 (default)

Gateway ↗ ✕

Name •

Description

Set as default

Devolutions Gateway URL •

TCP Listening Port

Generated token duration (minutes)

Health check interval (minutes)

Upon clicking the Test Connection button, If a success message does not display verify that the TCP ports are available. This should be done from a system other than where the Gateway service is installed.

```
@(7171,8181) | Foreach-Object { Test-NetConnection -ComputerName 'gateway.atademos.com' -Port $PSItem } | Select-Object RemotePort, TcpTestSucceeded
```

```
PS C:\> @(7171,8181) | Foreach-Object { Test-NetConnection -ComputerName 'gateway.atademos.com' -Port $PSItem } | Select-Object RemotePort, TcpTestSucceeded
```

RemotePort	TcpTestSucceeded
7171	True
8181	True

3. Once successfully saved, the connection will show a green check as shown below.



Name	Description	Devolutions Gateway URL	RDP port	Default
Gateway		https://gateway.atademos.com:7171	8181	<input checked="" type="checkbox"/>

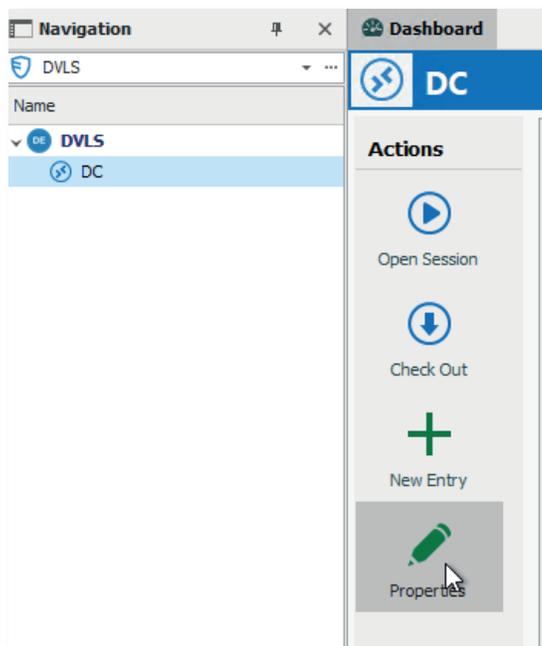
Connecting to a System via the Devolutions Gateway Service

To demonstrate how the Devolutions Gateway service works to proxy connections to a system via RDP, follow the below steps.

1. Open the **Remote Desktop Manager** client and locate an entry. Once selected, click on **Properties**.



This will require user Edit permissions, otherwise, the Properties button will be grayed out and unavailable.

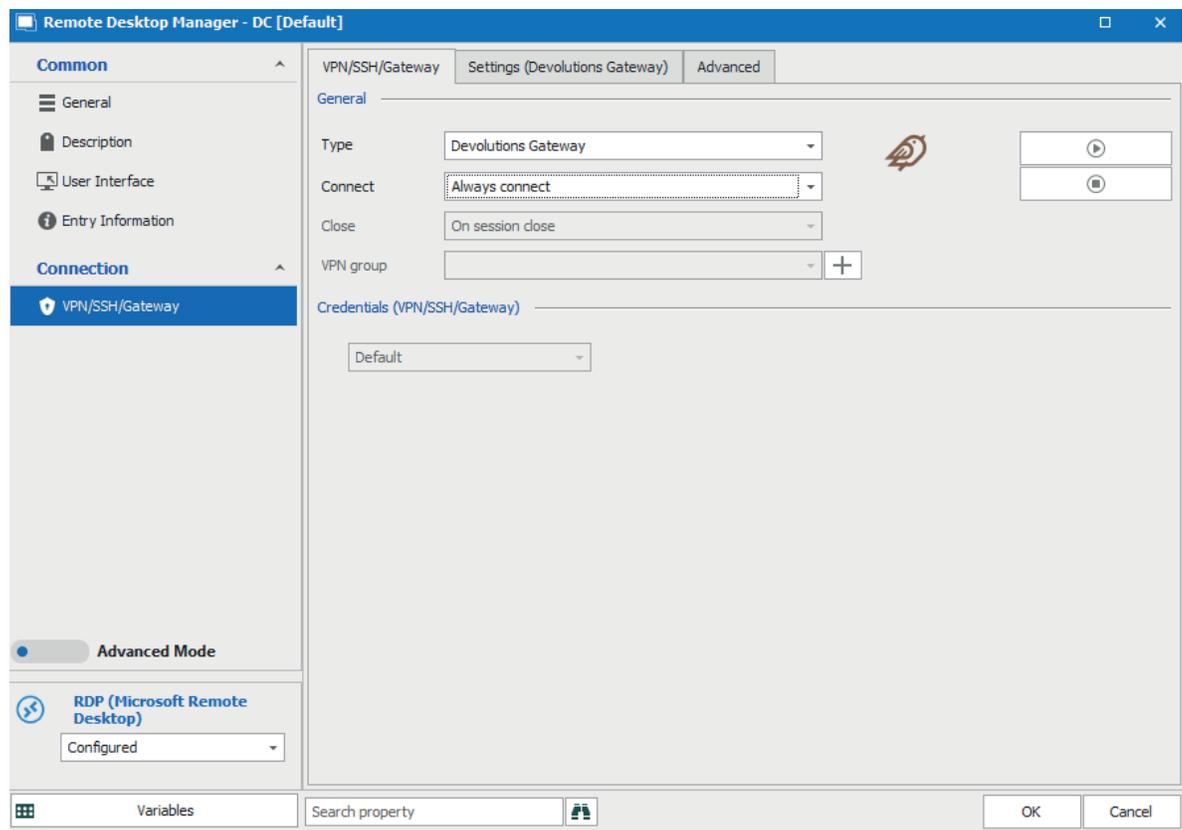


An alternative option is to configure Devolutions Gateway on a folder and set the VPN/SSH/Gateway to inherit to force all connections to use Devolutions Gateway.

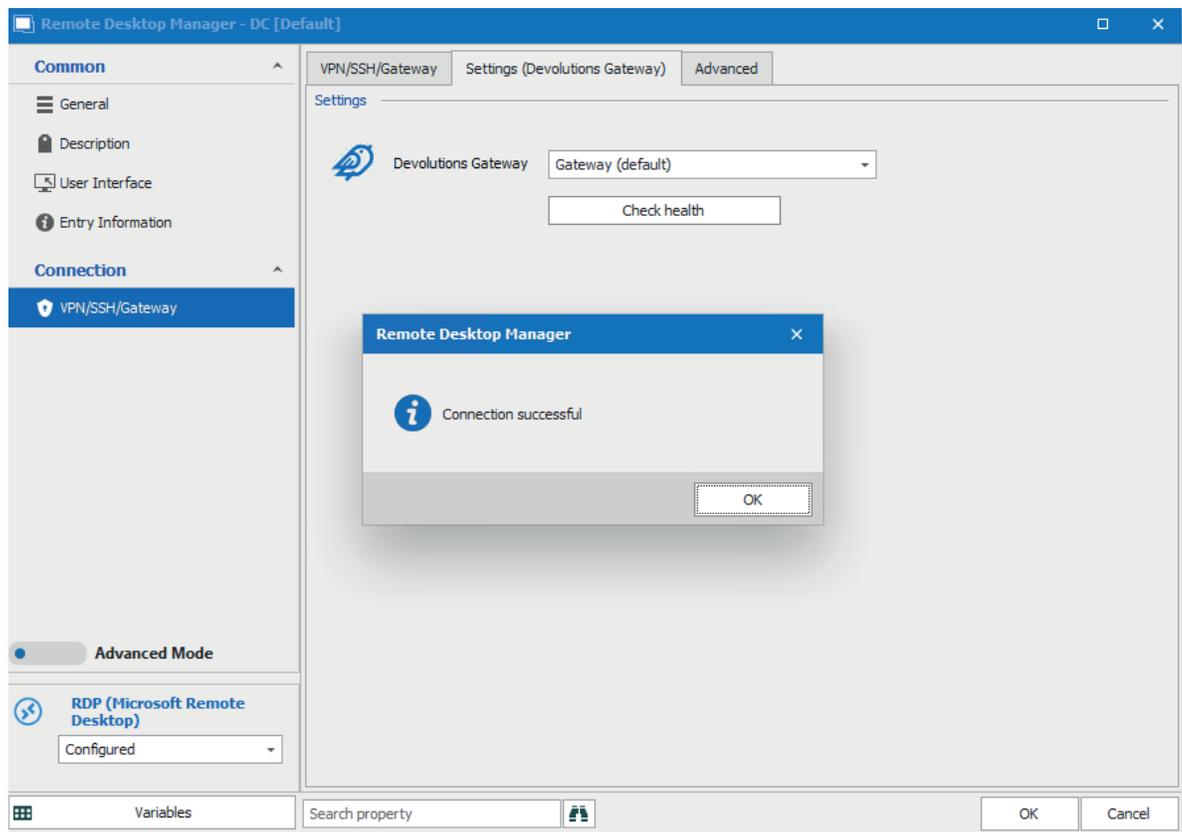
2. Select **Devolutions Gateway** as the **Type** and select **Always Connect** under the **Connect** drop-down. Though there are several options available for Connect, the only options applicable are **Not Available**, **Inherited**, and **Always Connect**.



If you are missing the Devolutions Gateway type, make sure the connection is configured as a Devolutions Server data source.

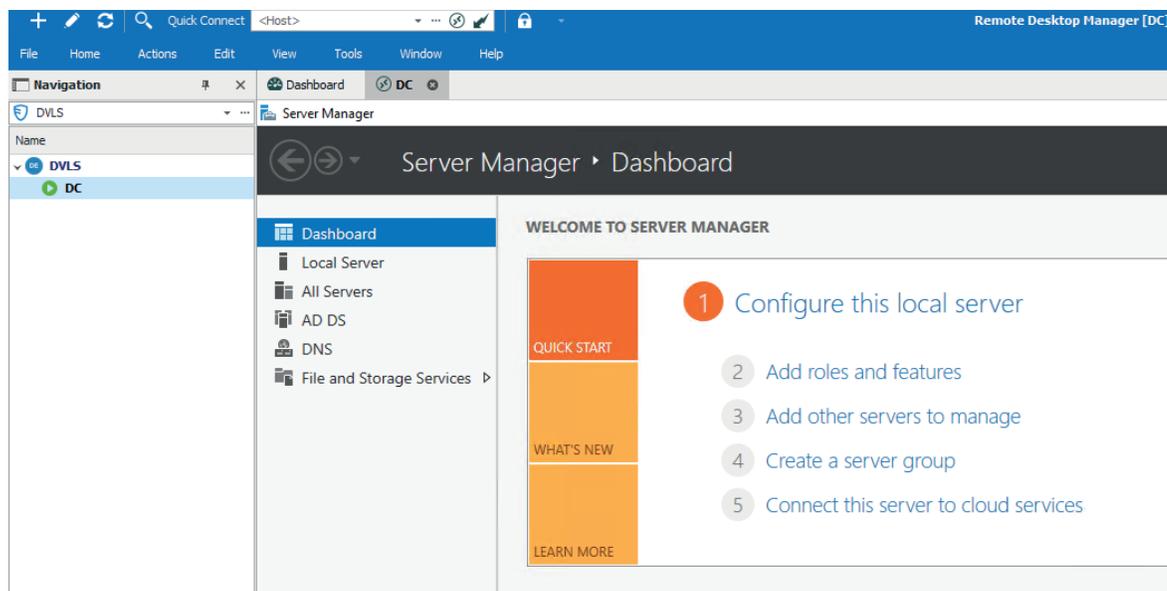


3. Click on the **Settings (Devolutions Gateway)** tab and click on **Check Health** button to verify that the selected Devolutions Gateway connection is functional. If successful, the message “Connection successful”, will display.



4. Finally, click the **OK** button to save the configuration.

5. Navigate to the connection and click **Open Session** to open an RDP session.



6. To verify that the connection is proxied (forwarded) through the Devolutions Gateway service, open the **Administration** → **Gateway** section of the Devolutions Server web interface. Locate the Devolutions Gateway service in use and click the three dots on the far right, choosing the **Session** menu option. As shown below, the RDP connection is forwarded through the Devolutions Gateway service.



Gateway - Active Sessions ↗ ✕

Destination ↑≡	Protocol ↑↓	Connection Mode ↑↓	Start Time ↑↓
dc.domain.local:3389	rdp	Forward	Tue Nov 16 2021 22:19:...

<< 1 >>

1 Results

Close

Summary of Benefits

Devolutions Gateway combined with Devolutions Server and Remote Desktop Manager provides a powerful alternative to traditional VPNs and Microsoft's own RD Gateway. Take positive secure control of your RDP infrastructure by enforcing multi-factor authentication (MFA) and removing the complexity of traditional VPNs!