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					-		×				
Server	lerver <mark>Companions</mark> Tools Administration Support										
Install	Uninstall Stop	Install U	Ipdate Uninstall	Explore Ir	H C X						
Sch	eduler Service	R	lecording Server		Devolutions Gateway						
	Name		IIS Path		Version		Expiration	Database Version	Path		
• 📀	Devolutions Server	•	Default Web Site	/dps	2021.1.20.0	1	3/31/2022	687	C:\inetpub\wwwroot\d	ps	

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

O Devolutions Server Con	sole	-		<
Server Companions	Tools Administration S	upport		
Install Uninstall Stop	H CO A CONTRACTOR CONT	Tinstall Update Uninstall Devolutions Gateway		
Name	IIS Path	Install Devolutions Gateway	×	\square
Oevolutions Server	Default Web Site/dps	Source O Download version O Install from msi file		
Name	Devolutions Server			
Description				
License (Server)	TUHTE-TH5XT-NNTJT-6QFEX-			
IIS Path	Default Web Site/dps			
Installation path	C:\inetpub\wwwroot\dps			
Application pool	dps			
Authentication	Domain, DVLS Custom			
Scheduler service	Running	Previous Next	Cancel	
2021.2.10.0				

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

Devolutions details.	Gateway can be	deployed in many diffe	rent ways, please refi	er to the <u>documentat</u>	<u>ion</u> for more
External url	https	- gateway.atademos	s.com		7171 🗘
Devolutions Gateway HTTP listener TCP listener	Listeners https tcp	 0.0.0.0 0.0.0.0 			7171 ‡
Certificate Configurat Certificate file	ion C:\Data\certifica	te.pfx			
Certificate password	•••••	•••••			
Private key file					
§			Previous	Next	Cancel

X

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.

💿 Install Devolu	tions Gateway			×
🕖 Devo	olutions Gateway Key Pair	Configurati	on	
Provisioner Pu	blic Key			
Use public	key from DVLS instance 'Devolutions Server'			
O From file				
			P	
8356		Previous	Next	Cancel

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.

Instal	l Devo	lutions	Gateway
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purce			
Download: 2021.1.6			
evolutions Gateway Listeners External url: https://gateway.atademos.com:7171 HTTP listener: https://*:7171 CCP listener: tray://*:8191			
ertificate Configuration			
Certificate file: C:\Data\certificate.pfx Certificate password: ******			
	Previous	Install	Cancel

starting Devolutions Gateway se Jownloading Devolutions Gateway Jone! Installing Devolutions Gateway. Jone!	rver installation installer 2021.1.6	•	
Configuring Devolutions Gateway Done! Starting Devolutions Gateway se	service	×	
oone! Setting Devolutions Gateway ser Done!	Operation S	Successful	
	ОК		

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Adding Devolutions Gateway to Devolutions Server

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

=	Devolutions Server			Administration		🖂 Admin 🙆
Q,	Search	ADMINISTRATION > GATEWAY				+ 😄 😄 :
•	Dashboard	Name 1%	Description ↑↓	Devolutions Gateway URL 1	RDP port †↓	Default †↓
*	Favorites					
	Vauits My User Vault			No data to display		

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	[⊾] a ×
Name •	
Gateway	
Description	
Set as default Devolutions Gateway URL https://gateway.atademos.com:7171	Test Connection
TCP Listening Port 8181 Auto-Detect	
Generated token duration (minutes) Health check inte	erval (minutes)
5 <u> </u> 60	
	Save Cancel

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



ADMINISTRATION > GATEWAY + 😁 🗧							C	:
	Name 1	Description 1	Devolutions Gateway URL ↑↓	RDP port ↑↓	Default †↓			
0	Gateway		https://gateway.atademos.com:7171	8181	\checkmark	/ () 1	ji i
			«< 1 >»				1 Res	sults

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.

🔲 Remote Desktop Manager - DC [De	fault]		□ ×
Common ^	VPN/SSH/Gateway Settings (Devolutions Gateway) Advanced		
General	General		
Description	Type Devolutions Gateway -	e	
Ser Interface	Connect Always connect -)
Entry Information	Close On session dose -		
Connection ^	VPN group +		
• VPN/SSH/Gateway	Credentials (VPN/SSH/Gateway)		
Advanced Mode Advanced Mode BDP (Microsoft Remote Desktop) Configured •	Default		
•••• Variables	Search property	ОК	Cancel

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.

+ 🖋 😂	Quick Connect	<host></host>	* §	🖌 🔂 🔹	Remote Desktop Manager [DC]
File Home	Actions Edit	View Tools	Window	Help	
Navigation	 т ×	🚳 Dashboard	S DC S		
🗊 DVLS	÷	ᡖ Server Manag	er		
Name			C		20 A A
			Serve	r Manager 🕨 D	asndoard
		Local Ser Local Ser All Server AD DS DNS File and S	rd ver 's Gtorage Service	QUICK START	 SERVER MANAGER Configure this local server Add roles and features Add other servers to manage Create a server group Connect this server to cloud services

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.

Devolutions Gateway URL ↑↓	RDP port ↑↓		Default ↑↓	
https://gateway.atademos.com:7171	8181		\checkmark	🖍 🌒 📋 🗄
«<1>»		ا و ا	ogs	
		() S	essions	0m
				0

Destination 1ª	Protocol ↑↓	Connection Mode ↑↓	Start Time ↑↓
dc.domain.local:3389	rdp	Forward	Tue Nov 16 2021 22:19:

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!