Microsoft Azure Quick Start Guide

Haivision Media Gateway 1.6 on Microsoft Azure

This quick start guide describes how to create and configure a virtual Media Gateway server on Microsoft Azure. For more detailed information, please refer to the *Appliance Important Notice*, Media Gateway Quick Start Guide, and the Media Gateway Administrator's Guide.



Microsoft Azure is a cloud computing platform for building, deploying and managing applications and services through a network of hosted data centers. Microsoft Azure allows you to deploy and manage your Haivision Media Gateway instances in this global network. For more information, please visit:

http://azure.microsoft.com

About Media Gateway

The Haivision Media Gateway serves as a bridge between video infrastructures, and is used to distribute live video to multiple sites, or to aggregate live video from multiple remote locations. Powered by Haivision's SRT (Secure Reliable Transport) technology, the Haivision Media Gateway is ideal for transporting high-quality, secure live video across public and private networks. For more information, please visit:

https://haivision.com/products/haivision-media-gateway

Before You Start

You must have an active Microsoft Azure account to sign in to Azure Portal. For evaluation purposes you can subscribe to Azure for a trial period. For more information, please visit: http://azure.microsoft.com/en-us/pricing/free-trial/

With Microsoft Azure, you must "bring your own license" (BYOL) for the Haivision Media Gateway. You can choose from different licensing options for Media Gateway. Please contact your Haivision representative to discuss your options and to obtain a license. See Licensing Your Server for details.

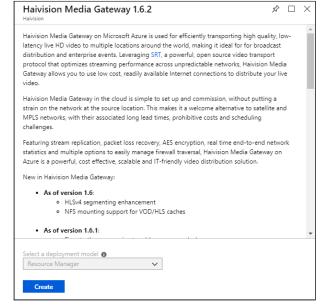
Creating a Virtual Media Gateway Server

- 1. Sign in to your Azure account: https://portal.azure.com
- 2. After you have successfully signed in to the Azure portal, click + Create a Resource.
- ^{3.} **1** Note

Multiple HMG versions may be available in the Azure Marketplace. We recommend using the latest version, unless interoperating with Haivision Media Platform where the version is dependent on the HMP version.

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🔇 App Services	NAME		PUBLISHER	CATEGORY			
Function Apps	Haivision Media Gateway 3.0		Haivision	Compute			
👼 SQL databases	Haivision Media Gateway 1.6.2		Haivision	Compute			
😹 Azure Cosmos DB	-						-
Virtual machines	Haivision Media Gateway 1.5		Haivision	Compute			-

4. Click Create.



Setting Up Your Media Gateway Server

To set up your virtual Media Gateway server, complete each of the sub-sections as described below.

Basics



^{1.} **O** Note

The name must be composed of the characters a-z and/or 0-9.

2. Generate a SSH public/private key pair for admin access to your virtual Media Gateway server. Typically, this is done on the computer that you will use to manage the HMG.

🕕 Note

SSH access to the Media Gateway's Console UI is only allowed via SSH public key. After deploying the virtual Media Gateway server, you can use this console to enable access for other administrators by uploading their public keys.

You can generate an OpenSSH public key with tools like ssh-keygen on Linux and OS X, or PuTTYgen on Windows. For details, see https://docs.microsoft.com/en-us/azure/virtual-machines/linux/ssh-from-windows and https://docs.microsoft.com/en-us/azure/virtual-machines/linux/ssh-from-windows and https://docs.microsoft.com/en-us/azure/virtual-machines/linux/ssh-from-windows and https://docs.microsoft.com/en-us/azure/virtual-machines/linux/ssh-from-windows and https://docs.microsoft.com/en-us/azure/virtual-machines/linux/mac-create-ssh-keys.

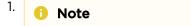
- 3. Copy and paste your public SSH key into the SSH public key field. Never share the private key.
- 4. For Subscription, specify a subscription plan.
- 5. For Resource Group, type a name for it in the corresponding field. (To select an existing resource group, click **Select existing**, and then click the arrow to reveal existing resource groups.) For more information on resources, visit: https://docs.microsoft.com/en-us/azure/azure-resource-manager/ resource-group-portal

🕕 Note

The resource group must be composed of the characters A-Z, a-z, 0-9, period(.), hyphen (-), and/or underscore (_).

- Select a Location, corresponding to the geographical region closest to the ingest source and/or egress source of your virtual Media Gateway server. This ensures the lowest latency for your Media Gateway traffic.
- 7. When you are satisfied with your settings, click OK.

Infrastructure Settings



The storage account name must be composed of the characters a-z and/or 0-9.

2. Choose from the recommended pricing tiers (D2, D3, A2 Standard, etc.) and click **Select**. For details see: http://azure.microsoft.com/en-us/pricing/details/virtual-machines/

Search			Compute t	ype		Disk ty	pe		vCPUs			
			Show all	compute typ	pes	✓ All di	sk types		♥ 1]0		
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🕕 Note

Currently, we only recommend pricing tiers D2 and D3. Using tiers with lower CPU resources may result in poor performance.

3. When you are satisfied with the settings, click **OK**.

Summary

1. Review your settings in the Summary section. You can go back to previous sections to make any necessary changes or corrections. When you are satisfied with the summary, click **OK**.

Buy

- 1. In the Buy section, review and accept the terms and conditions, then click **Purchase** to proceed.
- 2. The Azure portal Dashboard page reappears, adding the following item to the dashboard.



3. Creating your server instance can take several minutes. Click **Notifications** to see the status. Once the instance is reporting "Running", you can sign in.

Signing in to Media Gateway

Accessing the Web Interface

1. You need certain information from the Azure portal page to sign in to your Media Gateway server. We suggest opening a separate tab in your browser. 2. In the Azure portal browser tab, in the dashboard under All Resources, click on the Media Gateway virtual machine resource. Find and copy the server's Public IP Address.

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	Essentials ^	
Overview	Resource group (change) mediagatewayresourcegroup	Computer name mediagatewaydemoabc
Activity log	Status Running	Operating system Linux
Access control (IAM)	Location East US 2	Size Standard D2 (2 cores, 7 GB memory)
🕜 Tags	Subscription name (change) Free Trial	Public IP address/DIJS name label 52.167.118.152/mediagatewaydemoabc.ea
X Diagnose and solve problems	Subscription ID 69fc9fd0-c064-4617-8148-01be0900ccbe	Virtual network/subnet mediagatewaydemoabc-vnet/Subnet-1

- 3. In a new browser tab, paste the Public IP Address into the URL bar. A message may appear warning that the connection to the Media Gateway server is untrusted. This is normal, and you can safely continue. The sign-in screen of your Media Gateway server appears.
- 4. In the Azure portal browser tab, find and copy the server's Subscription ID. On first start up of your Media Gateway server, the Subscription ID is the password for signing into the web interface.

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Search (Ctrl+/)	Essentials A	
Overview	Resource group (change) mediagatewayresourcegroup	Computer name mediagatewaydemoabc
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5. In the Media Gateway browser tab, enter haiadmin as the User Name, and paste the Subscription ID in the Password field.

Н	l ai vision Media Gateway
	Username
	Password
	Sign In
	Sign III

6. Click the **Sign In** button. The Browse Routes screen appears.

🕕 Note

Please contact Haivision Technical Support to obtain a valid license key if needed. Without a valid license key, you can sign in, but you cannot create or edit routes.

For more details, refer to "Accessing Media Gateway" in the Media Gateway Administrator's Guide.

Accessing the Console UI

🕕 Note

You must have a private RSA key corresponding to the public key with which the virtual Media Gateway server was configured. See the "Basics" heading in Setting Up Your Media Gateway Server.

1. In a terminal window, enter the following command:

ssh -i ~/.ssh/<private-key_rsa> hvroot@<public-ip-address>

For instructions on specifying a private key on PuTTY for Windows, see the AWS documentation at: http://docs.aws.amazon.com/AWSEC2/latest/UserGuide/putty.html

The Media Gateway Console UI appears:

Haivision Media Gateway	Consol	e UI				
<mark>G</mark> eneral Info	Drage	enter	to	view	avatom	status.
Network Settings	11055	CHUCI		VICW	5796cm	564645.
Test Network						
System Logs						
Change Password						
(Current User)						
Change haiadmin						
Password						
Terminal						
Set Clock						
Reboot/Shutdown						
Log Out						
Log out						

2. In the navigation sidebar, use the *t* (up and down arrow) keys to highlight menu items, and then press the **Enter** key.

^{3.} Important

Network configuration settings are controlled by Microsoft Azure. Do not change them using the Haivision Console UI.

- 4. Press the **Enter** key to save your changes and return to the main screen.
- 5. Select **Log Out** and then press the **Enter key** to exit the Console UI.

For more details, refer to "Using the Console UI" in the Media Gateway Administrator's Guide.

Licensing Your Server

\rm 1 Note

Without a valid license key, you can sign in, but you cannot create or edit routes.

To obtain a license:

- 1. On the Azure portal dashboard under All Resources, click on the virtual machine resource.
- 2. Under Settings, click Properties.
- 3. Copy the Resource ID.

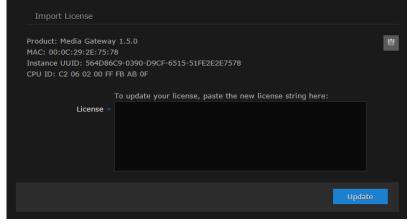
mediagatewaydemoabc - Virtual machine	Properties \star 🗕 🗖 🗙
	STATUS
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Q Overview	
Activity log	COMPUTER NAME
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Access control (IAM)	
🛷 Tags	PUBLIC IP ADDRESS/DNS NAME LABEL 52.167.118.152/mediagatewaydemoabc
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SETTINGS	10.0.0.4
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	OPERATING SYSTEM
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E Extensions	AGENT STATUS
Network interfaces	Ready
👰 Size	AGENT VERSION
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114 Properties	/subscriptions/69fc9fd0-c064-4617-8148
Locks	Change subscription
🛃 Automation script	LOCATION
SCHEDULES	East US 2
Q Auto-shutdown	SUBSCRIPTION NAME
MONITORING	Free Trial
iii Metrics	SUBSCRIPTION ID
Alert rules	69fc9fd0-c064-4617-8148-01be0900ccbe

4. Paste the Resource ID into an email and send it to your Haivision representative. You will receive a license string via an email reply. If you do not receive your license, please contact Haivision Technical Support (see Getting Help for contact information).

🕕 Note

The license you receive is bound only to the Media Gateway instance corresponding to the Resource ID you submit.

 After you receive your license, sign in to the Media Gateway server. You should be prompted with a License Required message. (Otherwise, click the = icon, click Administration, and click Licensing). Click Add License. 6. Copy and paste the license for your server into the License field.



7. Click Add.

Your virtual Media Gateway server is now licensed and available. For more information on licensing, please refer to the *Media Gateway Administrator's Guide*.

Modifying Network Security Rules

Your virtual Media Gateway server can receive and redistribute SRT streams. You must first verify that the Security Group is set to your network configuration, and you must open a UDP Port for your network if you want to use SRT Listener mode.

- 1. In the Microsoft Azure portal dashboard, click on the Media Gateway network security group. The name is of the form <given name of your instance>-security.
- 2. Under Settings, click Inbound Security Rules.
- 3. Click +Add to add a new security rule for incoming UDP traffic for SRT listener.

mediagatewaydemoabc-s Network security group	ecurity - Inbou	und security rules				* -	- - ×
 нешку доар 	(+ Add) 🗞	Default rules					
	,⊂ Search inb	ound security rules					
Overview	PRIORITY	NAME	SOURCE	DESTINATION	SERVICE	ACTION	
Activity log	1100	ssh	Any	Any	SSH (TCP/22)	Allow	
Access control (IAM)	1200	http	Any	Any	HTTP (TCP/80)	Allow	
Tags	1300	https	Any	Any	HTTPS (TCP/443)	Allow	
X Diagnose and solve problems							
SETTINGS							
🚊 Inbound security rules							
Outbound security rules							

4. Click Advanced.

Add inbound security rule _ C	⊐ ×
📌 Basic	
* Name SRT1	-
	•
* Priority	~
* Source Ø	
Any CIDR block Tag	
* Protocol	
Any TCP UDP	
* Source port range 0	_
•	
* Destination ®	
Any CIDR block Tag	
* Destination port range 1240	~
* Action	
Deny Allow	
OK	

- 5. Enter a new Name for the inbound security rule (e.g. SRT1).
- 6. Enter a Priority for handling rule execution on incoming network packets. The default value is usually acceptable.
- 7. Under Source, click Any.
- 8. Under Protocol, click **UDP**.
- 9. Enter "*" in the Source Port Range field.
- 10. Under Destination, click Any.
- 11. Specify a Destination port range corresponding to the ports you wish to use for SRT streaming.
- 12. Under Action, click **Allow**.
- 13. Click **OK** to activate this rule.

🕕 Note

For more information on SRT, please refer to the *Media Gateway Administrator's Guide* and the *SRT Deployment Guide*, available from the Haivision Support Portal.

Stopping the Instance

Important

Please be aware that simply shutting down your Media Gateway server via the Console UI does not deallocate your instance, and you will continue to be charged for the running instance. To avoid unwanted charges, you must stop the virtual machine.

To stop your Media Gateway server instance:

- 1. Navigate to Virtual machines in the Azure portal.
- 2. Find and click on your Media Gateway virtual machine, then click Stop.

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Q Overview	Resource group (change) mediagatewayresourcegroup	Computer name mediagatewaydemoabc
Activity log	Status Running	Operating system Linux
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Obtaining Documentation

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Getting Help

General Support	North America (Toll-Free) 1 (877) 224-5445
	International 1 (514) 334-5445
	and choose from the following: Sales - 1, Cloud Services - 3, Support - 4
Managed Services	U.S. and International 1 (512) 220-3463
Fax	1 (514) 334-0088
Support Portal	https://support.haivision.com
Product Information	info@haivision.com