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.

| Microsoft Azure | | | <i>P</i> Search res | sources, services, and docs | | | |
|---------------------|-------------------------------|------------------|---------------------|-----------------------------|---|---|----------|
| « | Home > Everything | | | | | | |
| + Create a resource | Everything | | | | Ŕ | | \times |
| i∃ All services | | | | | | | |
| - 🛧 FAVORITES | | | | | | × |] |
| 🛅 Dashboard | Pricing | Operating System | ~ | Publisher | | ~ | 1 |
| All resources | Results | All | ~ | All | | ~ |] |
| 📦 Resource groups | incourto | | | | | | |
| 🔇 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.

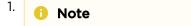
- 3. Copy and paste your public SSH key into the SSH public key field. Never share the private key.
- 4. For Subscription, specify a subscription plan.
- 5. For Resource Group, type a name for it in the corresponding field. (To select an existing resource group, click **Select existing**, and then click 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 | | |
| сомм | | ↑↓ ТҮРЕ ↑↓ | сомрит ↑↓ | VCPUS | 🗘 GB RAM | 🗘 🛛 DATA DI ∿ | MAX IOPS 🔍 | LOCAL SS 🗘 | PREMIU 🔨 | ADDITIO ∿ | ZONES | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| ailable | | | | | | | | | | | | |
| | D2 | Standard | General purpo | 2 | 7 | 8 | 4x500 | 100 GB | HDD | | 3 | |
| ailable | | Standard Standard | General purpo General purpo | | 7 3.5 | 8 | 4x500 4x500 | 100 GB | HDD HDD | | 3 | |

🕕 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.

| mediagatewaydemoabc | | * _ = × |
|-------------------------------|---|---|
| | 📲 Connect 🕨 Start 🧟 🖬 | Stop 🛅 Delete |
| | 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.

| mediagatewaydemoabc | | * _ = × |
|-------------------------------|---|--|
| | 🖙 Connect 🕨 Start 🧲 Restart 🔳 S | itop 🛅 Delete |
| Search (Ctrl+/) | Essentials A | |
| 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/DNS 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 |

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.

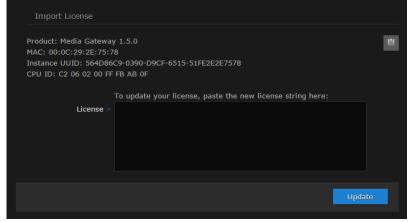
| mediagatewaydemoabc - Virtual machine | Properties \star 🗕 🗖 🗙 |
|--|--|
| | STATUS |
| | Running |
| Q Overview | |
| Activity log | COMPUTER NAME |
| | mediagatewaydemoabc |
| Access control (IAM) | |
| 🛷 Tags | PUBLIC IP ADDRESS/DNS NAME LABEL 52.167.118.152/mediagatewaydemoabc |
| X Diagnose and solve problems | Sz. 107.110.15z/mediagatewaydemoadc |
| | PRIVATE IP ADDRESS |
| SETTINGS | 10.0.0.4 |
| Availability set | |
| | OPERATING SYSTEM |
| 😑 Disks | Linux |
| E Extensions | AGENT STATUS |
| Network interfaces | Ready |
| 👰 Size | AGENT VERSION |
| ackup | WALinuxAgent-2.0.14 |
| 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.

| mediagatewaydemoabc | | * _ = × |
|-------------------------------|---|---|
| Search (Ctrl+/) | | Stop) 面 Delete |
| Q 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) |
| I Tags | Subscription name (change) Free Trial | Public IP address/DNS 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 |

Obtaining Documentation

This document was generated from the Haivision InfoCenter. To ensure you are reading the most up-todate version of this content, access the documentation online at https://doc.haivision.com. You may generate a PDF at any time of the current content. See the footer of the page for the date it was generated.

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 |