Amazon AWS Quick Start Guide

Haivision Media Gateway 3.1 on Amazon AWS



This quick start guide describes how to create and configure a virtual Haivision Media Gateway server on Amazon Web Service (AWS). For detailed configuration and operation information, please refer to the User's Guide. For the default credentials, refer to the *Important Notice* document (shipped with the appliance or available on the Haivision Support Portal).

About Amazon AWS

Amazon AWS is a collection of remote computing services that make up a cloud computing platform for building, deploying and managing applications and services through a network of datacenters across several geographical regions. Amazon AWS allows you to deploy and manage your Haivision Media Gateway instance(s) in this global network. For more information, please visit:

https://aws.amazon.com

About Media Gateway

The Haivision Media Gateway/SRT 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/SRT Gateway is ideal for transporting high-quality, secure live video across public and private networks.

Before You Start

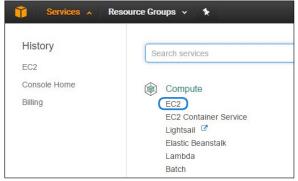
You must have an active Amazon AWS account to sign in to the AWS management portal. For evaluation purposes you can subscribe to AWS for a 12-month trial period. For more information, please visit: https://aws.amazon.com

With Amazon AWS, you can choose from different licensing options for Media Gateway. You may "bring your own license" (BYOL) or "pay as you go" (PAYG). For BYOL, 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

Signing in to AWS

- 1. Sign in to your AWS account: https://console.aws.amazon.com
- 2. After you have successfully logged in to the AWS portal, click Services > EC2.



Creating a Virtual Instance

- 1. On the EC2 Dashboard, click Launch Instance.
- 2. Click AWS Marketplace.
- 3. Type "Haivision" in the search box and press **Enter** to find the Media Gateway image.
- 4. Click the **Select** button corresponding to the version of the Media Gateway Amazon Machine Image (AMI) you wish to use, PAYG or BYOL.

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|--|---------------------------------------|---|---|
| | Amazon Ma | | oup 7. Review Cancel and Exit Ired to launch your instance. You can select an AMI provided by AWS, our user community, or |
| Quick Start My AMIs | Q haivision | × | $ \langle \langle 1 \text{ to 2 of 2 Products} \rangle \rangle$ |
| AWS Marketplace | Ha ivision Media | Haivision Media Gateway (PAYG) 余余余余余(0)11.11 Sold by Haivision | Select |
| Community AMIs | Gateway | \$0.548 to \$1.37/hr for software + AWS usage fees Linux/Unix, CentOS 6.6 64-bit Amazon Machine Image (AMI) Updated: 9/3/15 | |
| Categories All Categories Business Software (2) | | Haivision Media Gateway on AWS Marketplace is ideal for transporting broadcast distribution and More info | high quality, low-latency video to multiple locations around the world for |
| Operating System | Hai vision Media Gateway | Haivision Media Gateway (BYOL) ★★★★★ (0) 1.1 i Sold by Haivision Bring Your Own Leense - AVS usage fees | Select |
| All Linux/Unix CentOS (2) | | Linux/Unix, CentOS 6.6 64-bit Amazon Machine Image (AMI) Updated: 9/3/15 Halivision Media Gateway on AWS Marketplace is ideal for transporting i broadcast distribution and | high quality, low-latency video to multiple locations around the world for |
| Software Pricing Plans Hourly (1) | | More info | |

- 5. Review the product and pricing details, and then click **Continue**.
- 6. Choose an Instance Type, and then click Next: Configure Instance Details:

| azon EC | | stance types optimized t | | | ervers that can run applications. T arn more about instance types ar | | |
|---------|--|--------------------------------|------------------|----------------|---|---------------------------------|------------------------|
| er by: | All instance types 👻 | Current generation | Show/Hide Column | 8 | | | |
| | r selected: m4.xlarge (13 ECUs, 4 e vendor recommends using a m | | | | | | |
| | Family | - Туре - | vCPUs (j) | Memory (GiB) - | Instance Storage (GB) - | EBS-Optimized Available (i) - | Network Performance () |
| Ø | General purpose | t2.nano | 1 | 0.5 | EBS only | | Low to Moderate |
| 0 | General purpose | t2.micro Free tier eligible | 1 | 1 | EBS only | | Low to Moderate |
| б | General purpose | t2.small | 1 | 2 | EBS only | | Low to Moderate |
| | General purpose | t2.medium | 2 | 4 | EBS only | | Low to Moderate |
| | General purpose | t2.large | 2 | 8 | EBS only | | Low to Moderate |
| ъ | General purpose | t2.xlarge | 4 | 16 | EBS only | - | Moderate |
| б | General purpose | t2.2xlarge | 8 | 32 | EBS only | | Moderate |
| | General purpose | m4.large | 2 | 8 | EBS only | Yes | Moderate |
| | General purpose | m4.xlarge | 4 | 16 | EBS only | Yes | High |
| D | General purpose | m4.2xlarge | 8 | 32 | EBS only | Yes | High |
| | General purpose | m4.4xlarge | 16 | 64 | EBS only | Yes | High |
| 0 | General purpose | m4.10xlarge | 40 | 160 | EBS only | Yes | 10 Gigabit |

1 Note

We do not recommend using tiers with low CPU resources, because the resulting performance of Media Gateway will be inadequate.

Important

For high bandwidth streams or critical viewing requirements, we recommend using c4.xlarge or c4.2xlarge tiers, as they are optimized for compute-intensive workloads and have high-performance network I/O.

7. Modify your Instance Details as needed, and then click Next: Add Storage:

| 🎁 Services 🗸 Resource G | - * | | | 4 | in later - | Oregon + Support + |
|--|---|------------------------------|-------------------------------|-----------------------------|----------------------|--------------------|
| 1. Choose AMI Z. Choose Instance Type | Configure Instance 4. Add Storage | 5. Add Tags 6. Configure 3 | Security Group 7. Review | | | |
| Step 3: Configure Instan Configure the instance to suit your require instance, and more. | | from the same AMI, request S | pot instances to take advants | ge of the lower pricing, as | sign an access manag | ement role to the |
| Number of instances | 1 | Launch into Auto Scaling Gro | oup 🕕 | | | |
| Purchasing option | E Request Spot instances | | | | | |
| Network | vpc-f100bc96 (default) | - C | Create new VPC | | | |
| Subnet | No preference (default subnet in | any Availability Zoni * | Create new aubnet | | | |
| Auto-assign Public IP | Use subnet setting (Enable) | • |) | | | |
| IAM role | None | • C | Create new IAM role | | | |
| Shutdown behavior | Stop | • | | | | |
| Enable termination protection | E Protect against accidental terr | mination | | | | |
| Monitoring | Enable CloudWatch detailed m Additional charges apply. | nonitoring | | | | |
| Tenancy | Shared - Run a shared hardware Additional charges will apply for | | | | | |
| Advanced Details | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | Cancel Previous | Review and Launch | Next: Add Storage |

🕕 Note

You may wish to choose Enable under Auto-assign Public IP to give your Media Gateway server an IP address reachable from any location.

8. Set the amount of storage space you wish to make available to the Media Gateway server, and then click **Next: Add Tags**:

| aws | Services | ⊧ → Res | ource Groups 🗸 | * | | | | | Ą | • | Oregon + Suppor | t ¥ |
|------------------|--------------------------------|--------------------------------|-----------------------|----------------|---------------|--|-----------|------------|--------------------------|---------------------------------|------------------|--------------|
| 1. Choose AMI | 2. Choose Inst | ance Type | 3. Configure Instance | 4. Add Storage | 5. Add Taga | 6. Configure Security Group | 7. Review | | | | | |
| | be launched f the root volu | with the follo ume. You car | | | | EBS volumes and instance st nstance, but not instance sto | | | | | | ĺ |
| Volume Type (i | | Device (j) | Snapshot (j) | | Size (GiB) (j | Volume Type (j) | | IOPS (j) | Throughput (MB/s) (i) | Delete on Termination (i) | Encrypted (i) | |
| Root | , | /dev/sda1 | snap-03f05ac | 508a95eae2 | 20 | General Purpose SSD | gp2) 🔻 | 100 / 3000 | N/A | 2 | Not Encrypted | |
| Instance Store (| • 0 | /dev/sdb 🔻 | N/A | | 40 | SSD | | N/A | N/A | N/A | Not Encrypted | 8 |
| Instance Store 1 | 1 🔻 | /dev/sdc • | N/A | | 40 | SSD | | N/A | N/A | N/A | Not Encrypted | 8 |
| Add New Volum | ne | | | | | | | | Cancel Prev | ious Review ar | d Launch Next: A | + dd Tags |

\rm Note

The default storage is sufficient for most Media Gateway operations. However, if you intend to use Media Gateway in conjunction with a video server (such as Haivision Media Platform), having additional storage allows you to benefit from local caching on the virtual Media Gateway server.

🕕 Note

You may wish to choose Delete on Termination to have the storage space automatically removed if you cancel your subscription for the server instance.

9. Apply one or more tags (such as a Name) to the Media Gateway server, and then click **Next: Configure Security Group**:

| 🎁 Services 🗸 Resource Groups 🖌 🕈 | ↓ Oregon - Support - |
|---|--|
| 1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review | |
| Step 5: Add Tags A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. Learn more about tagging your Ama | azon EC2 resources. |
| Key (127 characters maximum) Value (255 characters maximum) | |
| Name Media Gateway Demo | 8 |
| Add another tag (Up to 50 tags maximum) | |
| | |
| Cancel Previous Rev | view and Launch Next: Configure Security Group |

- 10. Create a new security group, or select from a list of existing groups. Make sure you have the following ports open:
 - Port 443 for HTTPS access to the Media Gateway web interface
 - Port 22 for SSH access to the Media Gateway Console UI interface
 - A custom port to allow incoming UDP traffic, such as SRT streams (use Custom UDP Rule). See SRT for more information.

| ecurity group is a | | trol the traffic for your instance. On this pa | | | | |
|---|--------------------------------------|--|---------------------------------------|--|-----------------------------------|------------|
| ernet traffic to reac curity groups. | ch your instance, add rules t | hat allow unrestricted access to the HTTP | and HTTPS ports. You can create a ne | w security group or select from an exist | ing one below. Learn more about A | Amazon EC: |
| | | Create a new security group | | | | |
| | | Select an existing security group | 0.00000 | | | |
| | Security group name: Description: | Haivision Media Gateway -BYOL1-1-A | | North Control of Contr | | |
| ype 🕕 | becomption. | Protocol () | Port Range (j) | Source (j) | | |
| TTPS | * | TCP | 443 | Custom 🔻 | 0.0.0.0/0 | |
| TTP | ٣ | TCP | 80 | Custom 🔻 | 0.0.0.0/0 | (|
| SH | ¥ | TCP | 22 | Custom 🔻 | 0.0.0/0 | (|
| ustom UDP Rule | * | UDP | 7500 | Custom 🔻 | 0.0.0.0/0 | 6 |
| dd Rule | | | | | | |
| A Warning | 2 | | | | | |
| | | all IP addresses to access your instance. W | · · · · · · · · · · · · · · · · · · · | lasta allassa fara basan 10 add | 1 | |

11. Click Review and Launch.

12. Review your settings, and make any necessary corrections or changes. When you are satisfied, click **Launch**:

| ep 7: Review In | | | | and a click to an a barrant | to your instance and complete the launch p | |
|---|--------------------------------------|---|---|---|---|---|
| A Improve your i Your Instances ma | instances' sec ay be accessible f | curity. Your s from any IP add | security group, Haivi | sion Media Gateway -BYOL-1-1- t you update your security group rules to | AutogenByAWSMP-, is open to the allow access from known IP addresses only | e world. |
| You can also oper | n additional ports | in your security | y group to facilitate acces | s to the application or service you're runni | ing, e.g., HTTP (80) for web servers. Edit se | Edit Alv |
| | ledia Gateway (I | RYOL) | | | | Edit Aw |
| Martin | e: ebs Virtualization | | | | | |
| | | | | | | |
| Software cha By launching | arges will begin on | nce you launch t | | Il you terminate the Instance. gree that your use of this software is sub | ject to the pricing terms and the seller's | |
| | | | | | | |
| Instance Type | | | | | | Edit instance typ |
| Instance Type | ECUs | vCPUs | Memory (GiB) | Instance Storage (GB) | EBS-Optimized Available | Network Performance |
| | ECUs Variable | vCPUs 2 | Memory (GiB) | Instance Storage (GB) EBS only | EBS-Optimized Available | |
| Instance Type t2.medium | | | | | EBS-Optimized Available | Network Performance |
| Instance Type t2.medium | Variable | 2 Media Gateway | 4 y -BYOL1-1-AutogenByA | EBS only WSMP- | EBS-Optimized Available | Network Performance Low to Moderate Edit security group |
| Instance Type t2.medium Security Groups Security group name | Variable | 2 Media Gateway urity group was o | 4 y -BYOL1-1-AutogenByA | EBS only WSMP- | * | Notwork Performance Low to Moderate Edit security group resion 1.1 provided by Haivision |
| Instance Type 12 medium Security Groups Security group name Description | Variable | 2 Media Gateway urity group was o | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only MSMP- tplace and is based on recommended set | ttings for Haivision Media Gateway (BYOL) v | Notwork Performance Low to Moderate Edit security group resion 1.1 provided by Haivision |
| Instance Type 12 medium Security Groups Security group name Description Type () | Variable | 2 Media Gateway urity group was | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only WSMP- tplace and is based on recommended set Port Range () | ttings for Haivision Media Gateway (BYOL) Source (| Network Performance Low to Moderate Edit security group version 1.1 provided by Haivision |
| Instance Type 12.medium Security Groups Security group name Description Type ① HTTPS | Variable | 2 Media Gateway urity group was Pro TCP | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only WSMP- tplace and is based on recommended set Port Range () 443 | ttings for Haivision Media Gateway (BYOL) v Source (0.0.0.0/0 | Network Performance Low to Moderate Edit security group version 1.1 provided by Haivision |
| Instance Type 12 medium Security Groups Security group name Description Type () HTTPS HTTP | Variable | 2 Media Gateway urity group was Pro TCP TCP | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only WSMP- place and is based on recommended set Port Range () 443 80 | ttings for Haivision Media Gateway (BYOL) v Source (0.0.0.0/0 0.0.0.0/0 | Network Performance Low to Moderate Edit security group version 1.1 provided by Haivision |
| Instance Type t2.medium Security Groups Security group name Description Type () HTTPS HTTP SSH Custom UDP Rule | Variable | 2 Media Gateway urity group was Pro TCP TCP TCP | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only WSMP- tplace and is based on recommended set Port Range () 443 80 22 | ttings for Haivision Media Gateway (BYOL) v Source (0.0.0.0/0 0.00.0/0 0.0.0.0/0 | Network Performance Low to Moderate Edit security group version 1.1 provided by Haivision |
| Instance Type 12 medium Security Groups Security group name Description Type () HTTPS HTTP SSH | Variable | 2 Media Gateway urity group was Pro TCP TCP TCP | 4 y -BYOL1-1-AutogenByA generated by AWS Market | EBS only WSMP- tplace and is based on recommended set Port Range () 443 80 22 | ttings for Haivision Media Gateway (BYOL) v Source (0.0.0.0/0 0.00.0/0 0.0.0.0/0 | Network Performance Low to Moderate Edit security group version 1.1 provided by Haivision |

13. When prompted, select or create a public/private RSA key pair that is used to authenticate SSH sessions, and then click **Launch Instances**:

| ow you | to connect to your instance | nat AWS stores, and a private key file that you store. Together, they e securely. For Windows AMIs, the private key file is required to o your instance. For Linux AMIs, the private key file allows you to |
|---------|--|--|
| | e password used to log into SSH into your instance. | your instance, i'or Linux Amis, the private key he allows you to |
| | | dded to the set of keys authorized for this instance. Learn more |
| out rer | noving existing key pairs fro | om a public AMI. |
| Crea | te a new key pair | ٣ |
| Key p | air name | |
| | | |
| | | Download Key Pair |
| | You have to download th | ne private key file (*,pem file) before you can continue. Store it |
| | | ible location. You will not be able to download the file again |
| | after it's created. | |
| | | |
| | | |
| | | |

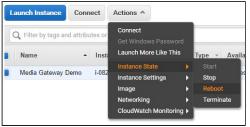
🕕 Note

SSH access to the Console UI is only allowed via SSH public key.

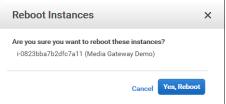
14. In a few moments, a Launch Status page appears, informing you that your Media Gateway instance is in the process of launching. Creating your server instance can take up to several minutes. At any time, click **View Instances** to see more details:

| 🎁 Services 🗸 Resource Groups 🗸 | * | 4 | ✓ Oregon ✓ Support ✓ |
|--|---|----------------------------------|---|
| | | | |
| Launch Status | | | |
| Edulion otatao | | | |
| | | | |
| Your instances are now launching | | | |
| The following instance launches have been | Initiated: I-0823bba7b2dfc7a11 View launch log | | |
| | | | |
| Get notified of estimated charges Create billing alerts to get an email notifical | tion when estimated charges on your AWS bill exceed an amount you define (for examp | ple, if you exceed the free usag | e tier). |
| | <i>w i i i i i i i i i i</i> | | |
| How to connect to your instances | | | |
| Your instances are launching, and it may take a few min | utes until they are in the running state, when they will be ready for you to use. Usage he | ours on your new instances wi | Il start immediately and continue to accrue |
| until you stop or terminate your instances. | | | |
| Click View Instances to monitor your instances' status. | Once your instances are in the running state, you can connect to them from the Instan | nces screen. Find out how to o | connect to your instances. |
| Getting started with your software | | | |
| To get started withHaivision Media Gateway (BYOL) | To manage your software subscription | | |
| View Usage Instructions | Open Your Software on AWS Marketplace | | |
| | | | |
| Here are some helpful resources to get | t you started | | |
| How to connect to your Linux instance | Amazon EC2: User Guide | | |
| Learn about AWS Free Usage Tier | Amazon EC2: Discussion Forum | | |
| 10.11 | | | |
| While your instances are launching you can also | | | |
| | e instances fail status checks. (Additional charges may apply) | | |
| Create and attach additional EBS volumes (Addition Manage security groups | al charges may apply) | | |
| wanage secarry groups | | | |
| | | | View Instances |

15. After the Instance State changes to "running", reboot the virtual server by selecting it in the AWS View Instances page and clicking **Actions > Instance State > Reboot**.



16. Confirm rebooting in the confirmation dialog box.



17. Return to the AWS View Instances page. In the row corresponding to your Media Gateway, take note of the Public IP address and Instance ID assigned by AWS to your Media Gateway instance. The Instance ID is the default password for signing into Media Gateway web interface.

| Name - | Instance ID | Instance Type 👻 | Availability Zone ~ | Instance State v | Statu~ | Alarm St | Public DNS | Public IP 👻 | Key Na |
|--------------------|---------------------|-----------------|---------------------|------------------|--------|----------|------------|----------------|--------|
| Media Gateway Demo | i-0823bba7b2dfc7a11 | t2.medium | us-west-2c | 🥥 running | o 2/2 | None 🍗 | w0101101 | 80.1102.716.4F | MG AV |

At this point, your virtual Media Gateway server is up and running!

- If you have created a BYOL instance, before continuing you need to license your Media Gateway. See Licensing Your Server.
- If you have created a PAYG instance, you are ready to sign in and begin using your Media Gateway. See Signing in to Media Gateway.

Signing in to Media Gateway

Accessing the Web Interface

- 1. Open a web browser, and enter the public IP Address of the virtual Media Gateway server. See Step #17 in Creating a Virtual Media Gateway Server to find the assigned IP address. A message may appear warning that the connection to the Media Gateway server is untrusted. This is normal, and you can safely continue.
- 2. Sign in to the Media Gateway Web Interface, using the haiadmin username and password. (By default, the password is the Instance ID of the virtual server. See Step #17 in Creating a Virtual Media Gateway Server.)

| н | Hai vision Media Gateway | | | | | | |
|---|---------------------------------|---------|--|--|--|--|--|
| | Usernan | ne | | | | | |
| | Passwor | rd | | | | | |
| | | | | | | | |
| | | Sign In | | | | | |

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

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

Accessing the Console UI

🕕 Note

You must have the private RSA key corresponding to the public key with which the virtual Media Gateway server was configured. See Step #13 in Creating a Virtual Media Gateway Server.

1. In a terminal window, enter the following command: ssh -i ~/.ssh/<public-key_rsa> hvroot@<public-ip-address>

For instructions on specifying a public 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. 2. In the navigation sidebar, use the ↑↓ (up and down arrow) keys to highlight menu items, and then press the **Enter** key.

^{3.} Important

Network configuration settings are controlled by Amazon AWS. 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 with Haivision Hardware.

Licensing Your Server

For **BYOL** instances, before creating routes in your virtual Media Gateway server, you must obtain a license from Haivision.

🕕 Note

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

To obtain a license:

- 1. Sign into the Media Gateway as described in Signing in to Media Gateway.
- 2. Click the \equiv icon and click Administration.
- 3. Click System Settings in the admin toolbar, and click Network in the sidebar.
- 4. Copy the server's MAC Address.

| Interfaces | |
|-----------------|------------------------|
| eth0 BOND INTE | |
| Addressing |) None 💿 Static 🔿 DHCP |
| IP Address * 1 | 0.69.12.156 |
| Subnet Mask • 2 | 255.255.254.0 |
| Gateway 1 | 0.69.12.1 |
| MTU 1 | 1500 |
| MAC Address |)0:0c:29:2e:75:78 |
| Link C | Auto 🔿 Manual |

- 5. To request a license for your product:
 - a. Log in to the Haivision Support Portal (https://support.haivision.com).
 - b. After logging in, click License Requests.
 - c. Click the **New** button.
 - d. Select the appropriate device type and click the Next button.
 - e. Fill in the form with the appropriate information, and click Save.

Your license request is submitted and you will be contacted by a Haivision representative shortly with a license key for your product.

🕕 Note

The license you receive is bound only to the Media Gateway instance corresponding to the MAC address you submit.

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

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

SRT

Your virtual Media Gateway server can be used to 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. This was completed in Step #10 in Creating a Virtual Media Gateway Server when setting up your AWS resource.

🕕 Note

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

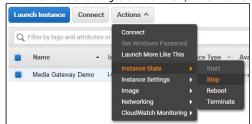
Stopping the Instance

Important

Please be aware that simply *shutting down* your 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 AWS virtual machine.

To stop your server instance:

- 1. Navigate to the AWS View Instances page.
- 2. Find and select your server, then click **Actions > Instance State > Stop**.



Important

It is possible that shutting down an AMI instance results in a change in the MAC address the next time it is started, which causes the existing BYOL license to expire. If this happens, contact Haivision with the new MAC address to obtain a replacement license.

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 |