



HAIVISION

**KB Encoder/Transcoder 5.6 Software-
Only**
Installation Guide

HVS-ID-INS-KB-5.6

Edition Notice

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About Haivision

Founded in 2004, Haivision is now a market leader in enterprise video and video streaming technologies. We help the world's top organizations communicate, collaborate and educate. Recognized as one of the most influential companies in video by Streaming Media and one of the fastest growing companies by Deloitte's Technology Fast 500, organizations big and small rely on Haivision solutions to deliver video. Headquartered in Montreal, Canada, and Chicago, USA, we support our global customers with regional offices located throughout the United States, Europe, Asia and South America.

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About This Document

Conventions

The following conventions are used to help clarify the content.

Typographic Conventions and Elements

<i>Italics</i>	Used for the introduction of new terminology, for words being used in a different context, and for placeholder or variable text.
bold	Used for strong emphasis and items that you click, such as buttons.
Monospaced	Used for code examples, command names, options, responses, error messages, and to indicate text that you enter.
>	In addition to a math symbol, it is used to indicate a submenu. For instance, File > New where you would select the New option from the File menu.
...	Indicates that text is being omitted for brevity.

Action Alerts

The following alerts are used to advise and counsel that special actions should be taken.



Tip

Indicates highlights, suggestions, or helpful hints.



Note

Indicates a note containing special instructions or information that may apply only in special cases.



Important

Indicates an emphasized note. It provides information that you should be particularly aware of in order to complete a task and that should not be disregarded. This alert is typically used to prevent loss of data.

⚠ Caution

Indicates a potentially hazardous situation which, if not avoided, may result in damage to data or equipment. It may also be used to alert against unsafe practices.

⚠ Warning

Indicates a potentially hazardous situation that may result in physical harm to the user.

Obtaining Documentation

This document was generated from the Haivision InfoCenter. To ensure you are reading the most up-to-date 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 Service Support

For more information regarding service programs, training courses, or for assistance with your support requirements, contact Haivision Technical Support using our Support Portal at: <https://support.haivision.com>.

This document describes the steps necessary for installing KB as *Software-Only* on your own equipment.

Installing KB

Installing KB Software	
Step	Description
1	Preparing New Hardware
2	Performing Installation Prerequisites
3	Acquiring the Install Package
4	Installing the Software

The installation process has been broken down into smaller procedures or steps. To avoid complications, be sure to perform these steps in order. Click the table links above to navigate back and forth between steps.

! Important

New installations require a license. You will need to provide the MAC address of the device to [Haivision Support](#).

Preparing New Hardware

Ensure that the following are installed on your own Linux system.

The web interface for managing the KB Encoder/Transcoder requires one of the following browsers:

- Google Chrome for Desktop 60+
- Mozilla Firefox for Desktop 51+
- Apple Safari 10+ for Mac OS X/iOS
- Microsoft Edge for Windows 10+

! Important

For the best experience, use the Google Chrome or Mozilla Firefox browsers.

Performing Installation Prerequisites

To ensure your Linux OS device is up-to-date, perform the following:

1. Open a terminal window.
2. At the prompt, enter the following to get your device up-to-date:

```
sudo yum update
```

The terminal lists the activities as it updates. If there are any missing required packages, they are listed on the screen.

3. To add any missing required packages, use the command:

```
sudo yum install [package] [package] ...
```

where:

- [package] is the identified missing requirement.

For example, to install the *SDL-devel* and *pulseaudio* packages:

```
sudo yum install SDL-devel pulseaudio
```

4. When finished, close the terminal window.

Acquiring the Install Package

To acquire the KB software-only install package:

1. In a browser window, go to the Haivision Support Portal at: <https://support.haivision.com>.
2. Log in to the support portal when prompted.
3. On the menu bar, click the **Resources > Software Releases** option.
4. Locate the product downloads section for **KB**, and click the **Software Releases** link.
5. On the KB Releases landing page, select the **Release Article** link for the release version in which you are interested.
6. As you scroll through the article, links appear for:
 - Product Bulletin — provides important details about the release and any compatibility issues.
 - License Request — for obtaining a new KB license.
 - Software-Only Update Package — for the required files. If you do not see the package you want, contact technical support or your service representative.

Click the Software-Only Update Package to download it to your local device.

Installing the Software

⚠ Caution

Before disabling the CentOS FirewallD, it is highly recommended that you have another firewall protecting your server.

To install the KB Encoder/Transcoder software-only package on your own hardware:

1. Open a new terminal window.
2. Disable the CentOS FirewallD. For example:
3. Change to the directory where you downloaded the installation package.
4. If necessary, extract the downloaded *.zip file
5. Ensure that the *.run file has the appropriate permissions.

```
sudo systemctl status firewalld
```

```
sudo systemctl stop firewalld
```

```
sudo systemctl disable firewalld
```

```
sudo chmod +x HaivisionKB_<version>-r<build>_RELEASE.run
```

6. Next, execute the installation package. For example,

```
sudo ./HaivisionKB_5.4.0-r276_RELEASE.run
```

```
[root@localhost Desktop]# ./HaivisionKB_5.4.0-r276_RELEASE.run
Verifying archive integrity... All good.
Uncompressing Haivision kulabyte installer.....
Starting installation - Wed Aug 14 16:09:38 EDT 2019 : /opt/haivision/var/log/haivision-hai-install.log
Creating the directory structure ...
Verifying the required packages prior to installation ...
required packages:
openssl openssl-devel SDL-devel pulseaudio fontconfig pulseaudio-libs-glib2 glibc.i686 libXv nss-softokn-freebl.i686 redhat
-lsb-core libpng libpng12 c-ares net-tools

Sourcing the Profile ...
Installing all packages ...
Preparing... ##### [100%]
Updating / installing...
 1:hai-kulabyte-5.4.0.147-147 ##### ( 25%)
```

i Note

The installer notifies you of any missing dependencies. You must satisfy these before continuing the installation. Use the `yum install <missing_package_name>` command, and repeat step 6. For example, the following screenshot shows that `openssl-devel` is missing. Therefore, enter the `yum install openssl-devel`, wait for the install to complete and rerun the installation package in Step 6.

```
[root@localhost Desktop]# ./HaivisionKB_5.4.0-r276_RELEASE.run
Verifying archive integrity... All good.
Uncompressing Haivision kulabyte installer.....
Starting installation - Wed Aug 14 15:44:34 EDT 2019 : /opt/haivision/var/log/haivision-hai-install.log
Creating the directory structure ...
Verifying the required packages prior to installation ...
required packages:
openssl openssl-devel SDL-devel pulseaudio fontconfig pulseaudio-libs-glib2 glibc.i686 libXv nss-softokn-freebl.i686 redhat
-lsb-core libpng libpng12 c-ares net-tools

The installation requires package : openssl-devel
[root@localhost Desktop]#
```

7.

Note

Do not enable Security Enhanced Linux (SELinux) after installing, as it can cause KB to not work correctly.

8. Reboot the system.

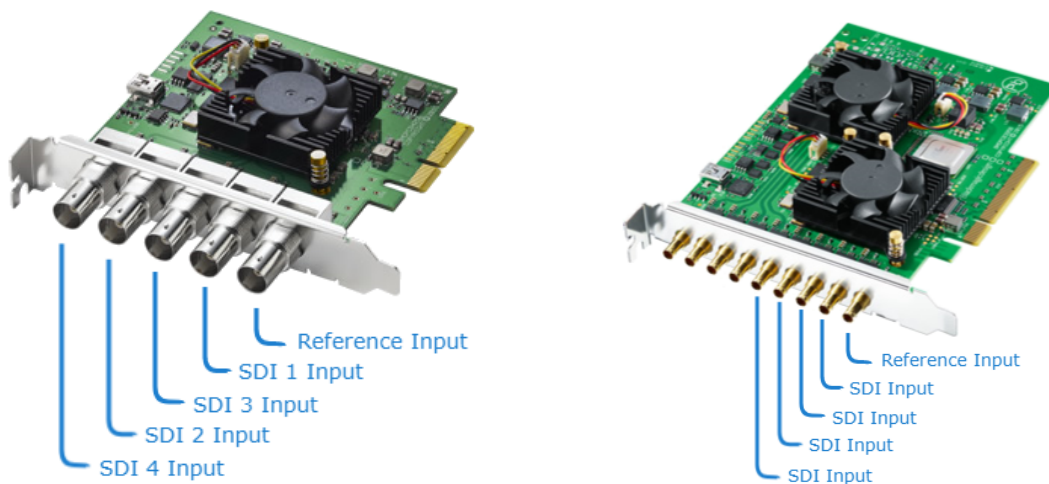
To verify that the user interface is running, enter the device's IP address in your web browser: `http://[server IP address or URL]`. The KB sign-in screen appears. If your device includes a Blackmagic card, see [Installing Blackmagic Cards](#). Else, go to [Next Steps](#).

Note

The Console UI is not included in the KB Software-Only package.

Installing Blackmagic Cards

See [Supported Software and Hardware](#) for a list of supported Blackmagic capture cards. The following images of the Blackmagic DeckLink Duo 2 and DeckLink Quad 2 are provided as a convenience. See the Blackmagic product documentation for more details.



! Important

To use all connectors as input, duplex mode must be disabled.

Installing the Drivers

DeckLink drivers can be downloaded from the Blackmagic support site at: <http://www.blackmagicdesign.com/support>.

To install the Blackmagic DeckLink drivers using the downloaded RPM packages:

1. Before installing the Blackmagic drivers, ensure your system is up-to-date and includes the latest kernel. Perform the following:

```
sudo yum update
```

2. Reboot the system.

3. Enter the following commands to install the sourceforge repository:

```
sudo yum install wget
```

```
sudo wget http://packages.sw.be/rpmforge-release/rpmforge-release-0.5.2-2.el6.rf.i686.rpm
```

```
sudo rpm --import http://apt.sw.be/RPM-GPG-KEY.dag.txt
```

```
sudo rpm -K rpmforge-release-0.5.2-2.el6.rf.*.rpm
```

```
sudo rpm -i rpmforge-release-0.5.2-2.el6.rf.*.rpm
```

4. Optional. To verify that the sourceforge repository was properly installed, enter:

```
sudo yum install htop
```

5. Install Perl:

```
sudo yum install perl
```

6. Install the capture card drivers:

```
sudo yum install <decklink_driver_filename>.rpm
```

Reboot your system and verify that the DeckLink card was detected by creating a channel specifying Baseband as the input source (see [Creating a Channel](#)). If the DeckLink card is not a listed option when creating the channel, reboot the system twice to force the card's detection. If they are still not detected, see [Not all Video Cards are Detected](#).

Removing KB Software

⚠ Caution

Before removing KB, ensure you have exported any of your channel configurations that you want to keep. See [Exporting Channel Configurations](#).

To remove KB that you installed on non-Haivision equipment:

1. Open a terminal window.
2. Perform the following command to remove the installation:

```
sudo yum remove kulabyte
```
3. After resolving the dependencies, you are prompted to confirm the package and size being removed. Enter **y** to confirm and press Enter.

```
Loaded plugins: fastestmirror, priorities, refresh-packagekit, versionlock
Resolving Dependencies
--> Running transaction check
--> Package kulabyte.x86_64 0:5.4.0-135RELEASE will be erased
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package           Arch           Version           Repository         Size
=====
Removing:
kulabyte          x86_64        5.4.0-135RELEASE @kulabyte         235 M

Transaction Summary
=====
Remove 1 Package

Installed size: 235 M
Is this ok [y/N]:
```

4. After the removal completes, you may close the window.

```
Transaction Summary
=====
Remove 1 Package

Installed size: 235 M
Is this ok [y/N]: y
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
Removed symlink /etc/systemd/system/multi-user.target.wants/kula-ecs.service.
Removed symlink /etc/systemd/system/multi-user.target.wants/sysinfosvr.service.
Removed symlink /etc/systemd/system/multi-user.target.wants/fileuploadsrv.service.
Removed symlink /etc/systemd/system/multi-user.target.wants/kbstartup.service.
Removed symlink /etc/systemd/system/multi-user.target.wants/haiconfig.service.
Erasing      : kulabyte-5.4.0-135RELEASE.x86_64      1/1
Verifying    : kulabyte-5.4.0-135RELEASE.x86_64      1/1

Removed:
  kulabyte.x86_64 0:5.4.0-135RELEASE

Complete!
[hrvroot@localhost ~]$_
```


Next Steps

Now that you're set up, your next step is to log in and verify that everything is working correctly:

- [Log into the interface](#)
- [Take a tour of the interface](#)
- [Log out of the interface](#)

After logging in, there are some administrative tasks that you should perform to configure the system:

- [Adding a license](#)
- [Changing default passwords](#)
- [Supplying KB with a TLS/SSL Security Certificate](#)
- [Configuring the alerts and email notifications](#)

Caution

For security purposes, Haivision strongly advises you to change the default passwords during initial configuration.

Warranties

1-Year Limited Hardware Warranty

Haivision warrants its hardware products against defects in materials and workmanship under normal use for a period of ONE (1) YEAR from the date of equipment shipment ("Warranty Period"). If a hardware defect arises and a valid claim is received within the Warranty Period, at its option and to the extent permitted by law, Haivision will either (1) repair the hardware defect at no charge, or (2) exchange the product with a product that is new or equivalent to new in performance and reliability and is at least functionally equivalent to the original product. A replacement product or part assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever is longer. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Haivision's property.

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to hardware products manufactured by or for Haivision that can be identified by the "Haivision" trademark, trade name, or logo affixed to them. The Limited Warranty does not apply to any non-Haivision hardware products or any software, even if packaged or sold with Haivision hardware. Manufacturers, suppliers, or publishers, other than Haivision, may provide their own warranties to the end user purchaser, but Haivision, in so far as permitted by law, provides their products "as is".

Haivision does not warrant that the operation of the product will be uninterrupted or error-free. Haivision does not guarantee that any error or other non-conformance can or will be corrected or that the product will operate in all environments and with all systems and equipment. Haivision is not responsible for damage arising from failure to follow instructions relating to the product's use.

This warranty does not apply:

- (a) to cosmetic damage, including but not limited to scratches, dents and broken plastic on ports;
- (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes;
- (c) to damage caused by operating the product outside the permitted or intended uses described by Haivision;
- (d) to a product or part that has been modified to alter functionality or capability without the written permission of Haivision; or
- (e) if any Haivision serial number has been removed or defaced.

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OBTAINING WARRANTY SERVICE

Before requesting warranty service, please refer to the documentation accompanying this hardware product and the Haivision Support Portal <https://support.haivision.com>. If the product is still not functioning properly after making use of these resources, please contact Haivision or Authorized Reseller using the information provided in the documentation. When calling, Haivision or Authorized Reseller will help determine whether your product requires service and, if it does, will inform you how Haivision will provide it. You must assist in diagnosing issues with your product and follow Haivision's warranty processes.

Haivision may provide warranty service by providing a return material authorization ("RMA") to allow you to return the product in accordance with instructions provided by Haivision or Authorized Reseller. You are fully responsible for delivering the product to Haivision as instructed, and Haivision is responsible for returning the product if it is found to be defective. Your product or a replacement product will be returned to you configured as your product was when originally purchased, subject to applicable updates. Returned products which are found by Haivision to be not defective, out-of-warranty or otherwise ineligible for warranty service will be shipped back to you at your expense. All replaced products and parts, whether under warranty or not, become the property of Haivision. Haivision may require a completed pre-authorized form as security for the retail price of the replacement product. If you fail to return the replaced product as instructed, Haivision will invoice for the pre-authorized amount.

APPLICABLE LAW

This Limited Warranty is governed by and construed under the laws of the Province of Quebec, Canada.

This Limited Hardware Warranty may be subject to Haivision's change at any time without prior notice.

EULA - End User License Agreement

READ BEFORE USING

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Click the following link to view the Software End-User License Agreement: [Haivision EULA.pdf](#)

If you have questions, please contact legal@haivision.com

SLA - Service Level Agreement

1. Introduction

This Service Level and Support supplement forms a part of and is incorporated into the Service Agreement (the "Agreement") between You and Haivision Network Video Inc. ("Haivision"). Capitalized terms used but not otherwise defined in this supplement shall have the meaning ascribed to them in the Agreement. Haivision may, upon prior written notice to You, amend this supplement to incorporate improvements to the service levels and support commitments at no additional cost to You. This supplement applies only to those products and services set forth below.

2. Definitions

- "Audience Member" means an individual or entity that accesses Your Published Media Objects through a public URL.
- "Access Service" means the service provided by Haivision VCMS that verifies an Audience Member's credentials.
- "Digital Media File" means a computer file containing text, audio, video, or other content.
- "Outage" is a 12-minute period of consecutive failed attempts by all six agents to PING the domain on the Haivision Streaming Media network.
- "Published Media Object" means a Digital Media File with a public URL.
- "Transaction" means the creation of a right for an Audience Member to access a Media Object and the completion of an order logged in the order history service.

3. Service Levels for the Video Content Management System

The service levels in this [Section 3](#) apply only to the hosted version of Haivision VCMS and the Haivision VCMS development kit (collectively, the "Standard Hosted Components" of Haivision Video Cloud Services). Subject to the exceptions noted in [Section 4](#) below, the aforementioned components of Haivision Video Cloud Services will be available for use over the course of each calendar month as follows:

Type of Access	Definition	Availability Level
Write Functions	<ul style="list-style-type: none"> • Access to all functions through the administrative user interface. • Ability to add or modify objects and metadata through the application programming interface (“API”) • Ability of ingest service to check for new or updated files or feeds 	99.999%
Read-Only Functions	<ul style="list-style-type: none"> • Ability to retrieve data through the API • Ability for Audience Members to authenticate through the Access Service • Ability for Audience Members to play Published Media Objects • Ability for Audience Members to play Haivision VCMS-authenticated or entitled Published Media Objects • Ability to complete Transactions 	99.999%

4. Exceptions to Availability for the VCMS

The Standard Hosted Components may not be available for use under the following circumstances, and in such case such periods of unavailability shall not be counted against Haivision Video Cloud for purposes of calculating availability:

- a. Normal Maintenance, Urgent Maintenance and Upgrades as defined in the table below;
- b. Breach of the Agreement by You as defined in the Agreement;
- c. The failure, malfunction, or modification of equipment, applications, or systems not controlled by Haivision Video Cloud;
- d. Any third party, public network, or systems unavailability;
- e. Acts of Force Majeure as defined in the Agreement;
- f. Modification of software made available to You as part of Haivision Video Cloud Services by You or a third party acting on Your behalf; and
- g. Any third party product or service not incorporated into Haivision Video Cloud Services or any third party plug-in.

Haivision Video Cloud shall make commercially reasonable efforts to notify, or work with, applicable third parties to repair or restore Haivision VCMS functionality affected by such exceptions.

Type of Maintenance	Purpose	Write Functions Available	Read Functions Available	Maximum Time Per Month	Continuous Time in Mode (Max)	Window (Central Time)	Min Notice
Normal	<ul style="list-style-type: none"> • Preventive maintenance on the software/hardware components of Haivision VCMS • Addition of new features/functions • Repair errors that are not immediately affecting Your use of Haivision VCMS 	No	Yes	10 Hours	6 Hours	10:00p m - 5:00a m	48 Hours
Urgent	<ul style="list-style-type: none"> • Repair errors that are immediately affecting Your use of Haivision VCMS 	No	Yes	30 Minutes	15 Minutes	Any Time	3 Hours

Type of Maintenance	Purpose	Write Functions Available	Read Functions Available	Maximum Time Per Month	Continuous Time in Mode (Max)	Window (Central Time)	Min Notice
Upgrades	<ul style="list-style-type: none"> Perform upgrades on software or hardware elements necessary to the long term health or performance of Haivision VCMS, but which, due to their nature, require that certain components of Haivision VCMS to be shut down such that no access is possible 	No	No	1 Hour	1 Hour	12:00am - 4:00am M-F	5 Days

5. Credits for Downtime for the VCMS

Haivision Video Cloud will grant a credit allowance to You if You experience Downtime in any calendar month and you notify Haivision Video Cloud thereof within ten (10) business days after the end of such calendar month. In the case of any discrepancy between the Downtime as experienced by You and the Downtime as measured by Haivision Video Cloud, the Downtime as measured by Haivision Video Cloud shall be used to calculate any credit allowance set forth in this section. Such credit allowance shall be equal to the pro-rated charges of one-half day of Fees for each hour of Downtime or fraction thereof. The term “Downtime” shall mean the number of minutes that Standard Hosted Components are unavailable to You during a given calendar month below the availability levels thresholds in [Section 3](#), but shall not include any unavailability resulting from any of the exceptions noted in [Section 4](#). Within thirty (30) days after the end of any calendar month in which Downtime occurred below the availability levels thresholds in [Section 3](#), Haivision Video Cloud shall provide You with a written report detailing all instances of Downtime during the previous month. Any credit allowances accrued by You may be offset against any and all Fees owed to Haivision Video Cloud pursuant to the Agreement, provided that a maximum of one month of credit may be accrued per month.

6. Support Services for the VCMS

Support for Haivision Video Cloud Services as well as the Application Software (defined as the VCMS application software components that Haivision licenses for use in conjunction with the Video Cloud Services) can be reached at hvc-techsupport@haivision.com and shall be available for all Your support requests. Haivision Video Cloud will provide 24x7 monitoring of the Standard Hosted Components.

Cases will be opened upon receipt of request or identification of issue, and incidents will be routed and addressed according to the following:

Severity Level	Error State Description	Status Response Within	Incident Resolution within
1 - Critical Priority	Renders Haivision VCMS inoperative or causes Haivision VCMS to fail catastrophically.	15 minutes	4 hours
2 - High Priority	Affects the operation of Haivision VCMS and materially degrades Your use of Haivision VCMS.	30 minutes	6 hours
3 - Medium Priority	Affects the operation of Haivision VCMS, but does not materially degrade Your use of Haivision VCMS.	2 hours	12 hours

Severity Level	Error State Description	Status Response Within	Incident Resolution within
4 - Low Priority	Causes only a minor impact on the operation of Haivision VCMS.	1 business day	3 business days

7. Service Levels for Haivision Streaming Media Service

Haivision agrees to provide a level of service demonstrating 99.9% Uptime. The Haivision Streaming Media Service will have no network Outages.

The following methodology will be employed to measure Streaming Media Service availability:

Agents and Polling Frequency

- a. From six (6) geographically and network-diverse locations in major metropolitan areas, Haivision’s Streaming Media will simultaneously poll the domain identified on the Haivision Streaming Media network.
- b. The polling mechanism will perform a PING operation, sending a packet of data and waiting for a reply. Success of the PING operation is defined as a reply being received.
- c. Polling will occur at approximately 6-minute intervals.
- d. Based on the PING operation described in (b) above, the response will be assessed for the purpose of measuring Outages.

If an Outage is identified by this method, the customer will receive (as its sole remedy) a credit equivalent to the fees for the day in which the failure occurred.

Haivision reserves the right to limit Your use of the Haivision Streaming Media network in excess of Your committed usage in the event that Force Majeure events, defined in the Agreement, such as war, natural disaster or terrorist attack, result in extraordinary levels of traffic on the Haivision Streaming Media network.

8. Credits for Outages of Haivision Streaming Media Service

If the Haivision Streaming Media network fails to meet the above service level, You will receive (as your sole remedy) a credit equal to Your or such domain’s committed monthly service fee for the day in which the failure occurs, not to exceed 30 days of fees.

9. No Secondary End User Support

UNDER NO CIRCUMSTANCES MAY YOU PROVIDE CONTACT INFORMATION FOR HAIVISION SERVICES TO CUSTOMERS OR AUDIENCE MEMBERS OR OTHER THIRD PARTIES WITHOUT HAIVISION’S EXPRESS PRIOR WRITTEN CONSENT.

Getting Help

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

