



Avigilon Control Center Server User Guide

Version 4.10

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Revised 2011-10-19

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Introduction

What is the Avigilon Control Center Server?

The Avigilon Control Center Server software is the application that captures and records surveillance data from network cameras and encoders. The captured data is then sent to the Avigilon Control Center Client software for you to review.

The Avigilon Control Center Server software contains two key parts — the Control Center Server Windows service and the Admin Tool. The Control Center Server Windows service directs video to where it needs to be stored or streamed live in the network. While the Admin Tool is the interface that allows you to configure the Control Center Server's administrative settings.

There are three editions of the Server software available: Core, Standard and Enterprise. The Core edition allows 16 cameras and 2 clients to be connected to the server at the same time. While the Standard edition allows 24 cameras and 5 clients to be connected to the server at the same time. The Enterprise edition allows 96 cameras and unlimited clients to be connected to the server, plus the option of installing additional licensed features and third-party integration software. The edition of the Server software also determines what features are available in the Client software. Visit the Avigilon website for an overview of the features available with each license:

<http://avigilon.com/products/controlcenter/overview/>

System Requirements

Recording capacity:	32MB/s > 96 cameras	10MB/s > 64 cameras *Can view live and recorded images	Laptop, 5MB/s > 4 cameras *Can view live and recorded images
OS	Windows XP SP2, Windows XP SP2 x64, Windows Vista 32-bit or 64-bit, Windows Server 2003 SP2, Windows Server	Windows XP SP2, Windows XP SP2 x64, Windows Vista 32-bit or 64-bit, Windows Server 2003 SP2, Windows Server 2008, or	Windows XP with Service Pack (SP) 2 or later, Window Vista, or

	2008, or Windows 7 A 64-bit operating system is recommended	Windows 7	Windows 7
CPU	Intel Quad Core Xeon 2.0 GHz processor	Intel Quad Core Xeon 2.0 GHz processor	Intel Dual Core 2.0 GHz processor
System RAM	4 GB DDR2	2 GB DDR	2 GB
Video card	n/a	nVidia Quadro FX 570 dual DVI	DirectX 9.0c compliant with 128MB RAM (nVidia 7600 or better, or ATI X1600 or better)
Network card	1 Gbps Intel Pro/1000 or Broadcom NetXtreme II Server Adapters	1 Gbps	1 Gbps
Hard drives	SATA-II 7200 RPM Enterprise Class Hard Drives	SATA-II 7200 RPM Hard Drives	SATA-II Hard Drives

For More Information

Visit Avigilon at <http://www.avigilon.com/> for additional product documentation.

Avigilon University

The Avigilon University provides free online training videos that demonstrate how to set up and use the Avigilon Surveillance System. Register online at the Avigilon Partner site to begin:

<http://avigilon.com/partners/>

Support

For additional support information, visit <http://www.avigilon.com/support/>.

Regular Avigilon Customer Support Center hours of operation are from 6:00 a.m. to 6:00 p.m. Pacific Standard Time (PST) and can be reached by calling the toll-free number: +1.888.281.5182.

E-mails can be sent to: support@avigilon.com.

For emergency technical support 24 hours a day, 7 days a week, please call the Avigilon Emergency Technical Support Hotline at +1.604.506.3117.

Upgrades

Software and firmware upgrades will be made available for download as they become available. Check <http://www.avigilon.com/support/software> for available upgrades.

Feedback

We value your feedback. Visit our feedback page to comment on our products and services: <http://avigilon.com/feedback/>

Navigating the Application

The Avigilon Control Center Server software contains two parts: the Control Center Server Windows service and the Admin Tool.

The Control Center Server Windows service runs automatically when your computer starts.

The Admin Tool is used to configure the Control Center Server Windows service. For example, from the Admin Tool you can add licenses, define the network, and configure the backup and storage settings for the Avigilon Control Center.

Control Center Server

The Control Center Server is a Windows service, so it runs automatically in the background.

If required, you can configure the Control Center Server properties in the Services window. The Services window can be accessed through [Control Panel > Administrative Tools > Services](#).

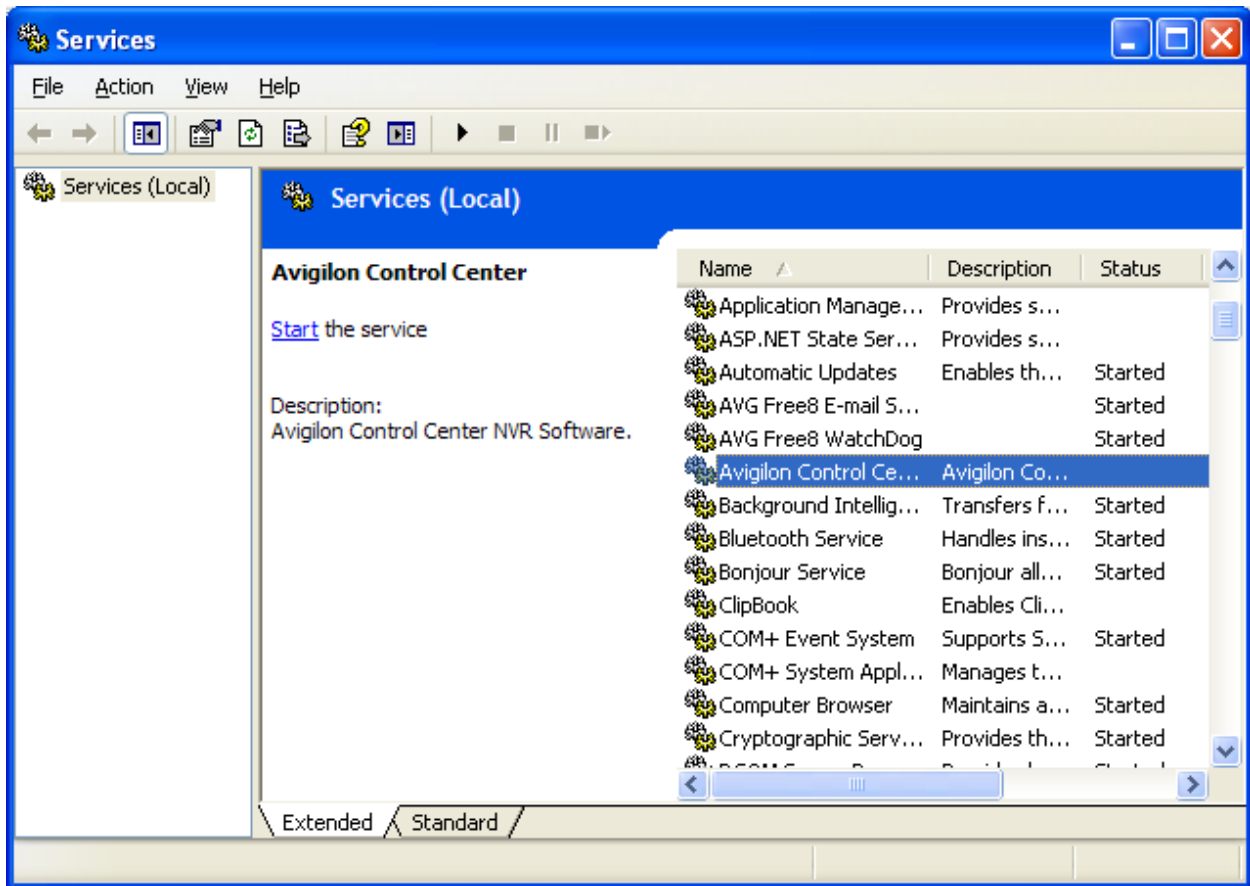


Figure A. Services window

Admin Tool

The Admin Tool is used to configure your Control Center Server settings. From the Admin Tool, you can configure the size of the surveillance data storage space, where files are backed up, the licenses for the Avigilon Control Center, and network ports.

Accessing the Admin Tool

The Admin Tool can be accessed in the following ways:

- From the Windows Start menu, select **Programs > Avigilon > Avigilon Control Center Server > Avigilon Control Center Server Admin Tool**

- Double-click the  **Avigilon Control Center Server Admin Tool** shortcut icon on the desktop.

- Double-click the Avigilon Control Center icon in the system tray.

The Avigilon Control Center icon in the system tray changes color depending on the Server software status.

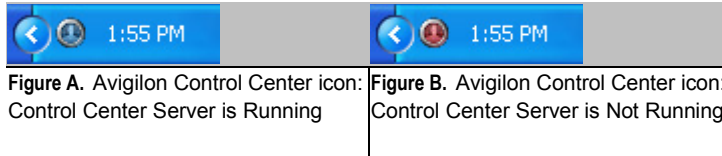


Figure A. Avigilon Control Center icon: Control Center Server is Running

Figure B. Avigilon Control Center icon: Control Center Server is Not Running

Admin Tool Window

From the Admin Tool, you can start up or shut down the Control Center Server at any time. See [Starting Up and Shutting Down the Avigilon Control Center Server](#).

The Admin Tool window contains two tabs: the **General** tab and the **Settings** tab.

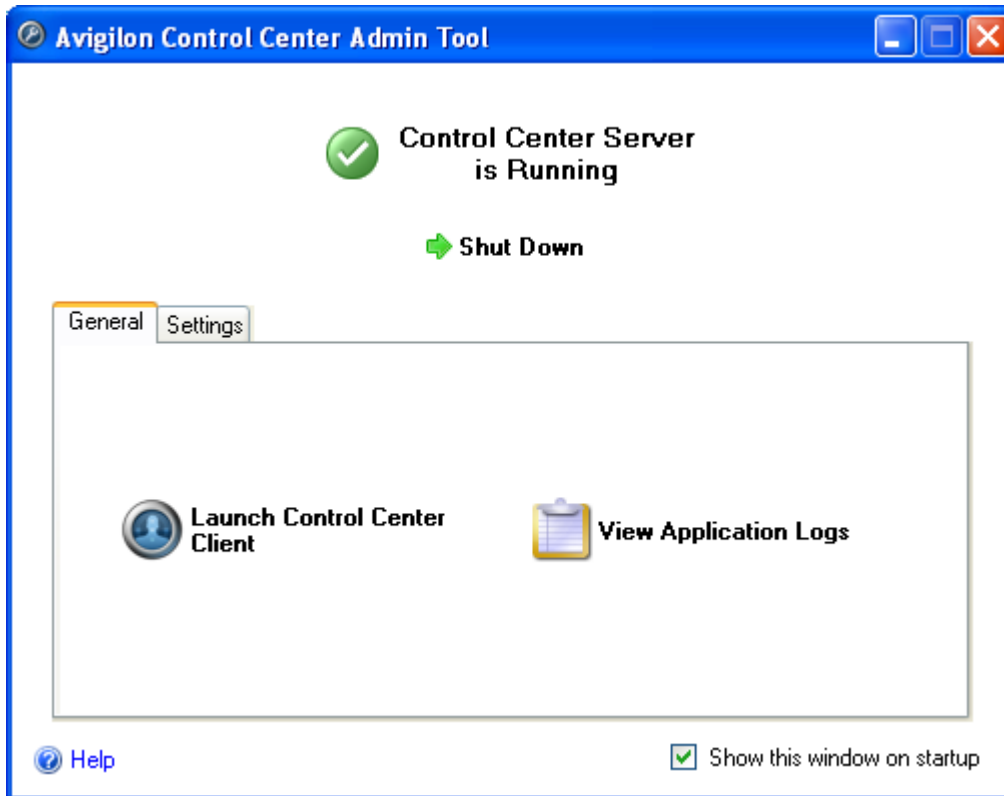


Figure C. Admin Tool, **General** tab

Feature	Description
Launch Control Center Client	Click this button to start the Avigilon Control Center Client software.

View Application Logs

Click this button to view the Control Center Server error logs.

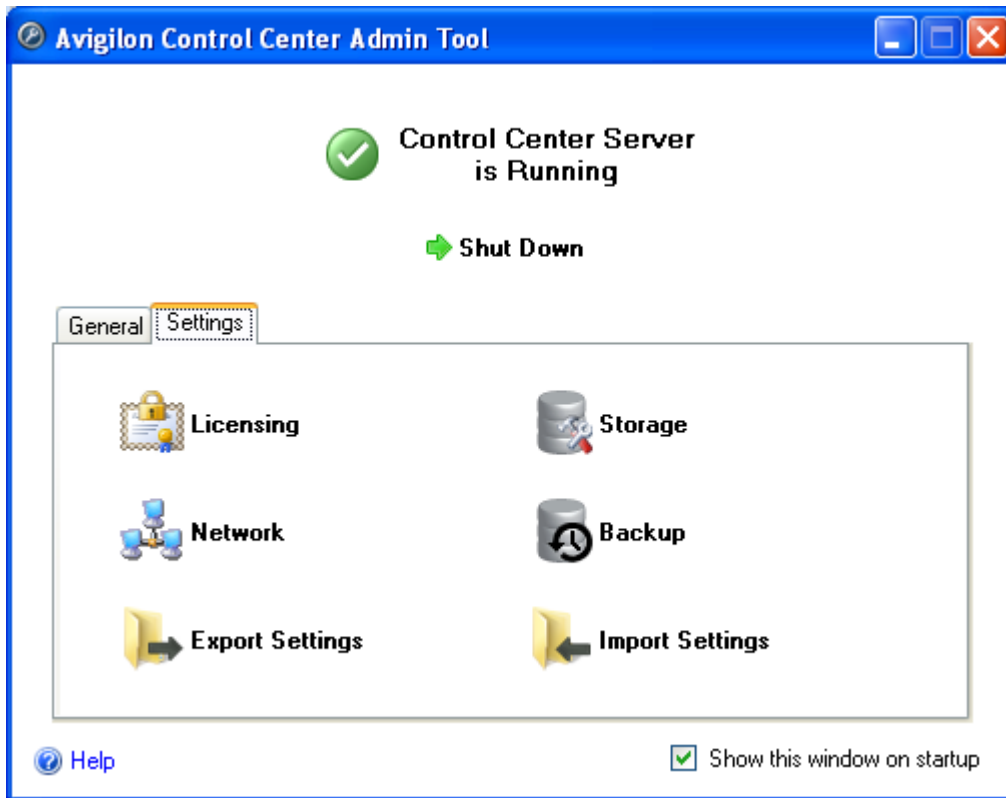


Figure D. Admin Tool, **Settings** tab

Feature	Description
Licensing	Click this button to view and add licenses to your Avigilon Control Center system. See Licensing the Server for more information.
Storage	Click this button to define the amount of server space for surveillance data storage. See Configuring the Server Storage Settings for more information.
Network	Click this button to define the network ports. See Configuring the Server Network Settings for more information.
Backup	Click this button to define where backup files are stored. See Configuring the Server Backup Settings for more information.
Export Settings	Click this button to export the server settings. See Exporting Server Settings for more information.
Import Settings	Click this button to import settings from the current server or from a different server. See Importing Server Settings for more information.

Setup

Complete the following procedures to configure the Avigilon Control Center Server to fit your needs.

Licensing the Server

After the Avigilon Control Center Server software has been installed, you must add your software license to the application or the Control Center Server will not run.

Accessing the Server Licensing Settings

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the Settings tab, click **Licensing**.

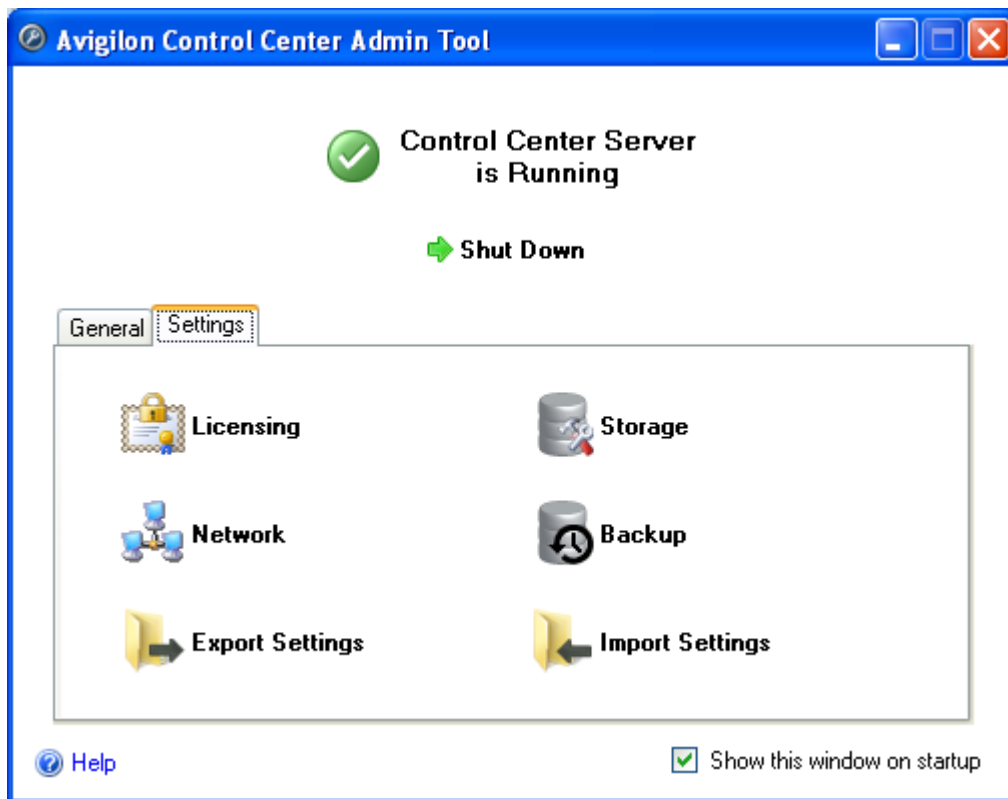


Figure A. Control Center Admin Tool

3. In the License Activation dialog box, you can see all valid product keys and current available access rights.

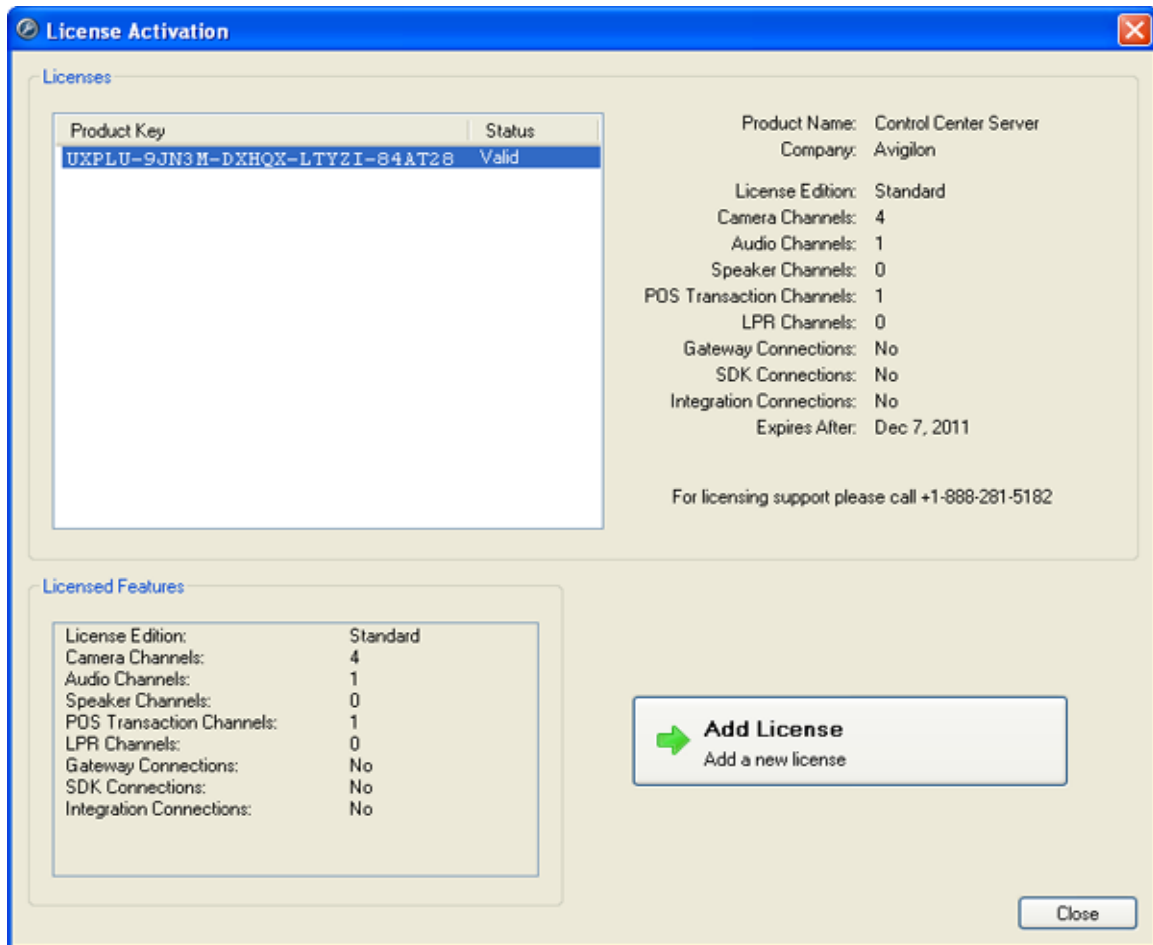


Figure B. License Activation dialog box

Activating a License Over the Internet

If you have internet access, the Admin Tool connects to the internet automatically and helps you activate your license.

1. In the Admin Tool, select **Settings > Licensing**.
2. In the License Activation dialog box, click **Add License**.
3. If an internet connection was detected, click **Internet Activation (Recommended)**.

If an internet connection was not detected, see [Activating a License Manually](#).

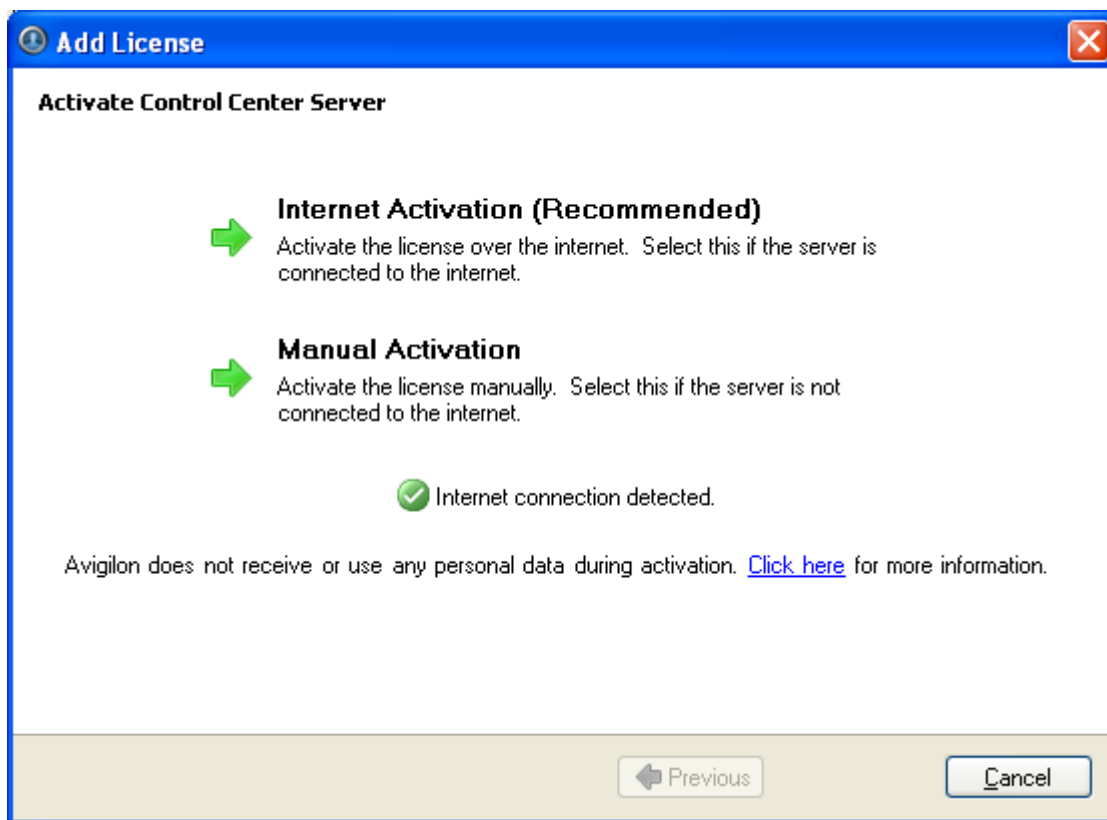


Figure A. Activate Control Center Server page

4. Enter the product key, a check mark will appear if it is valid. If you have multiple product keys, click **Add additional key** and enter the next product key. When all the licenses for this server have been added, click **Next**.

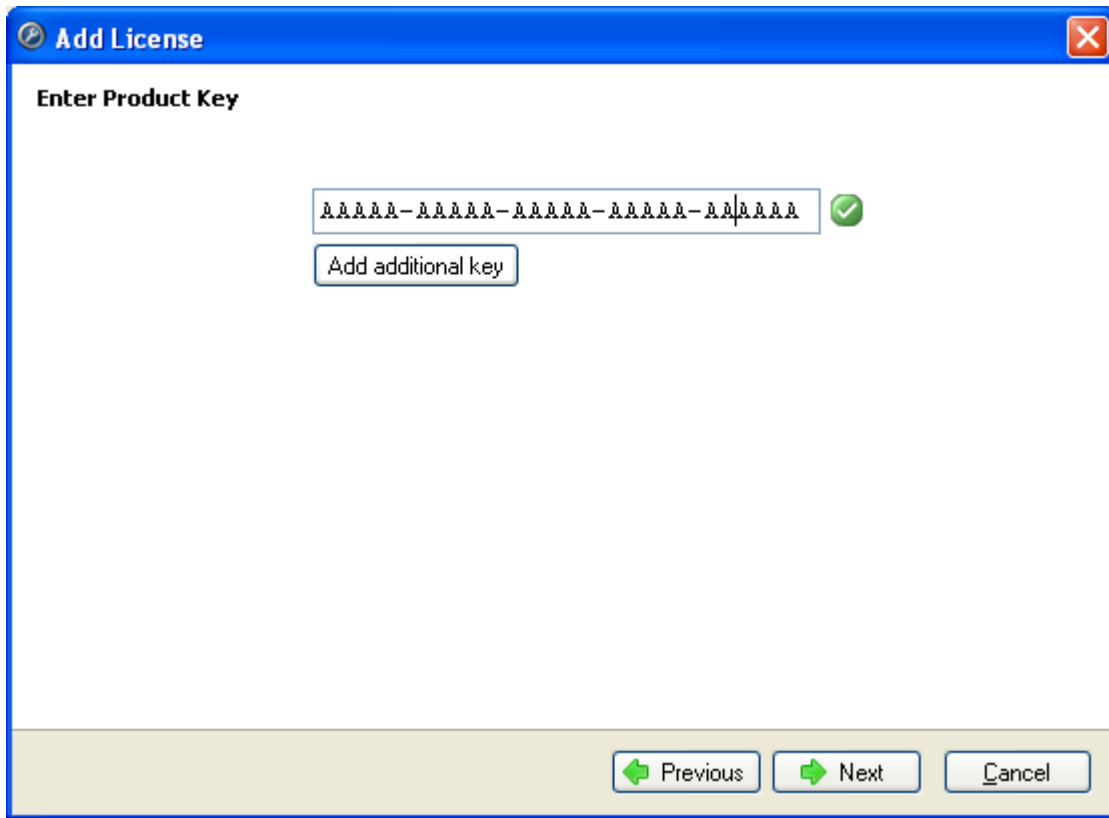


Figure B. Enter Product Key page

5. Complete the Product Registration page to receive product updates from Avigilon, then click **Next**.

Add License

Product Registration

To receive product updates, please register the following information. Registration is optional.
* Required Fields

Register to receive updates

*First Name:

*Last Name:

*Email Address:

*Country:

State:

Company Name:

Don't register to receive updates

Figure C. Product Registration page

6. The Admin Tool connects to the Avigilon licensing server and activates the license. When the *Activation Succeeded* message appears, click **Finish**.

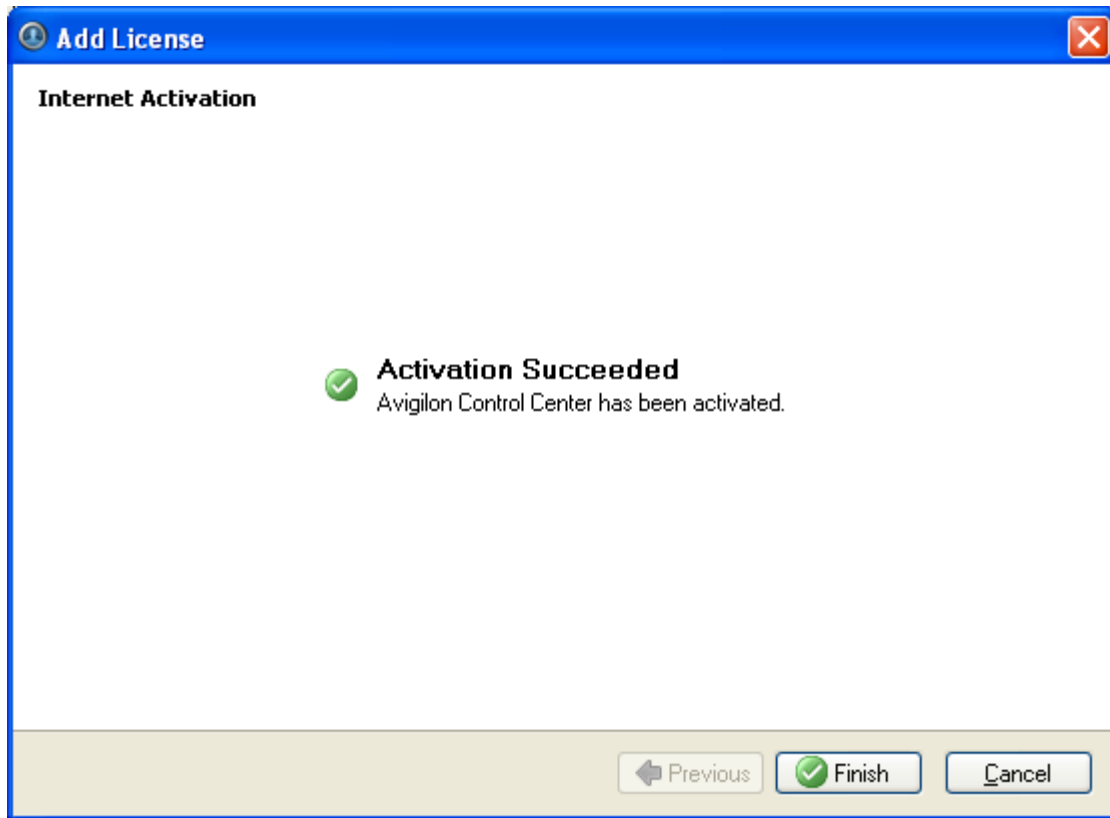


Figure D. Internet Activation Successful page

Activating a License Manually

If your server does not have internet access, you can activate your license manually by downloading the license file and activating the license on a computer with internet access.

1. In the Admin Tool, select **Settings > Licensing**.
2. In the License Activation dialog box, click **Add License**.
3. If an internet connection was not detected, click **Manual Activation**.

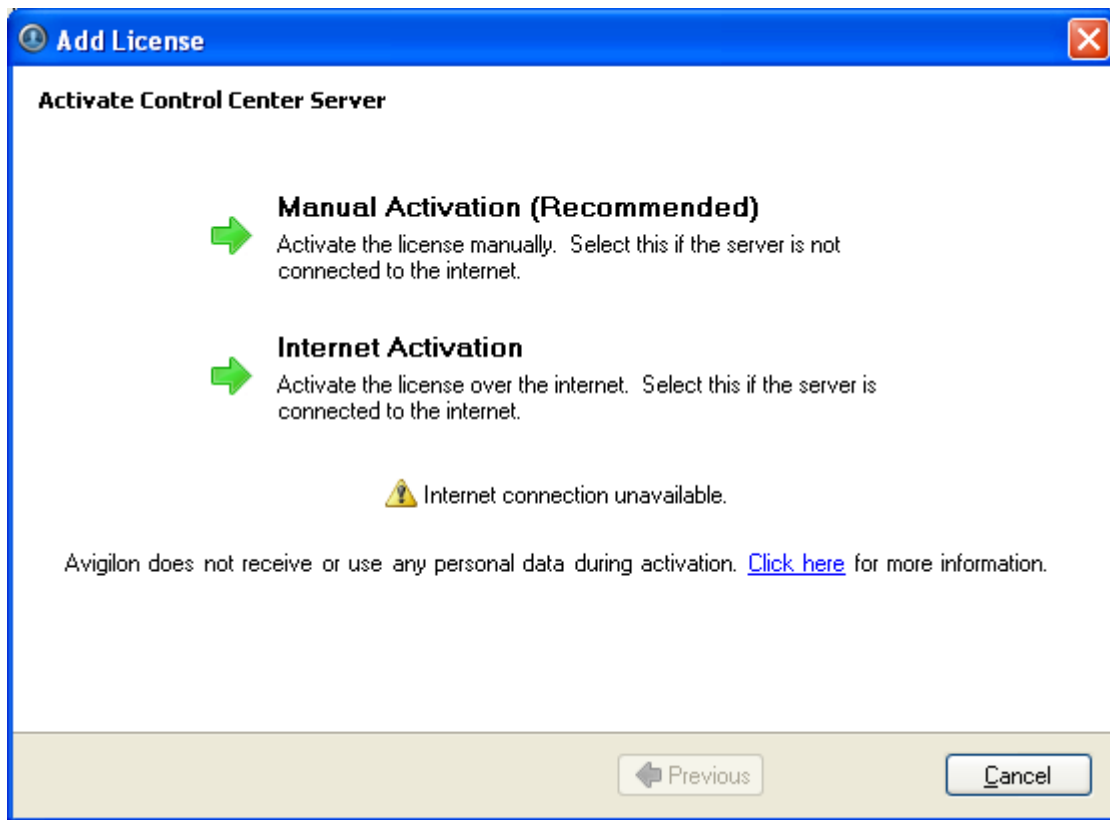


Figure A. Activate Control Center Server page

4. Click **Step 1: Generate Activation File**.

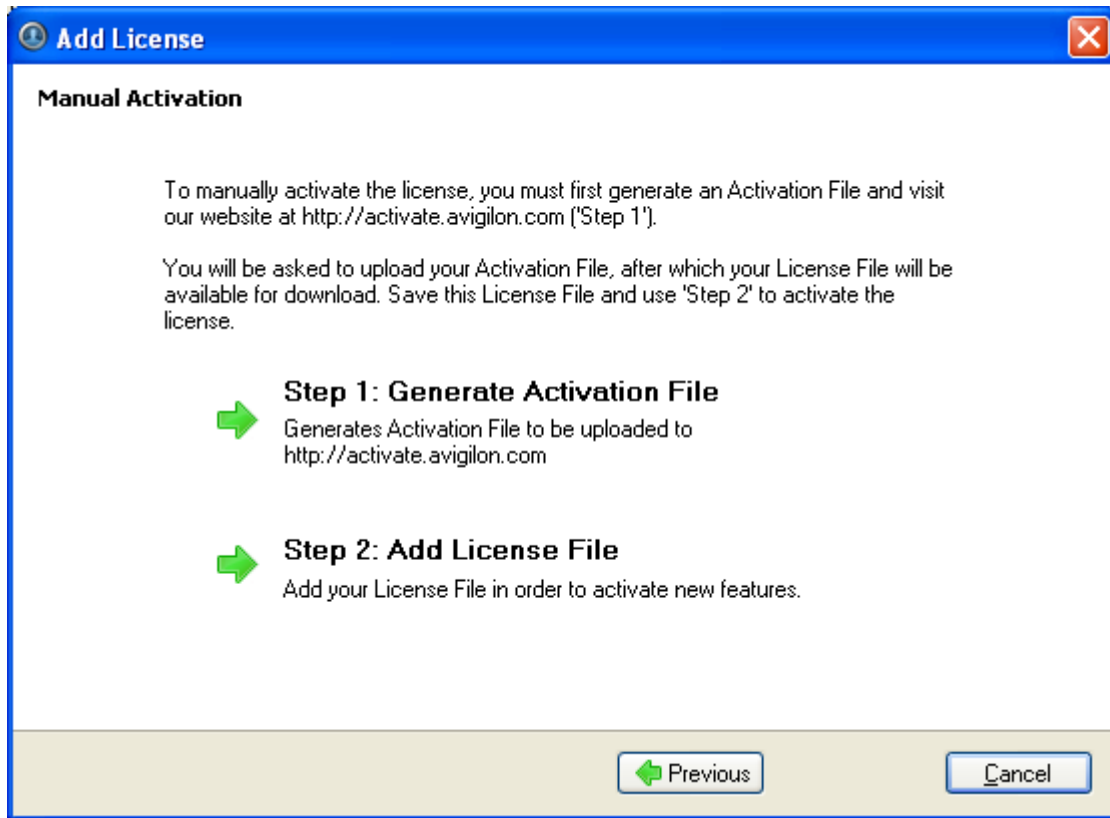


Figure B. Manual Activation page

5. Enter the product key, a check mark will appear if it is valid. If you have multiple product keys, click **Add additional key** and enter the next product key. When all the licenses for this server have been added, click **Next**.

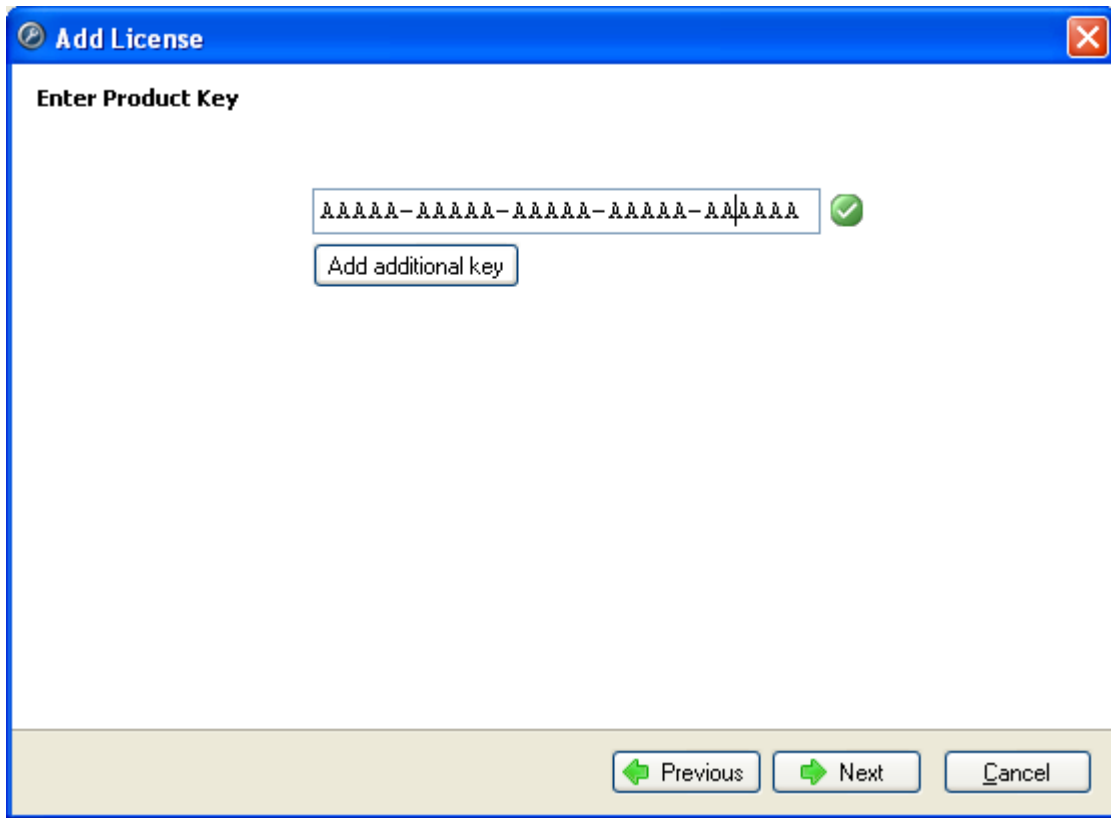


Figure C. Enter Product Key page

6. Select the location and file name for the activation file, then click **Next**.

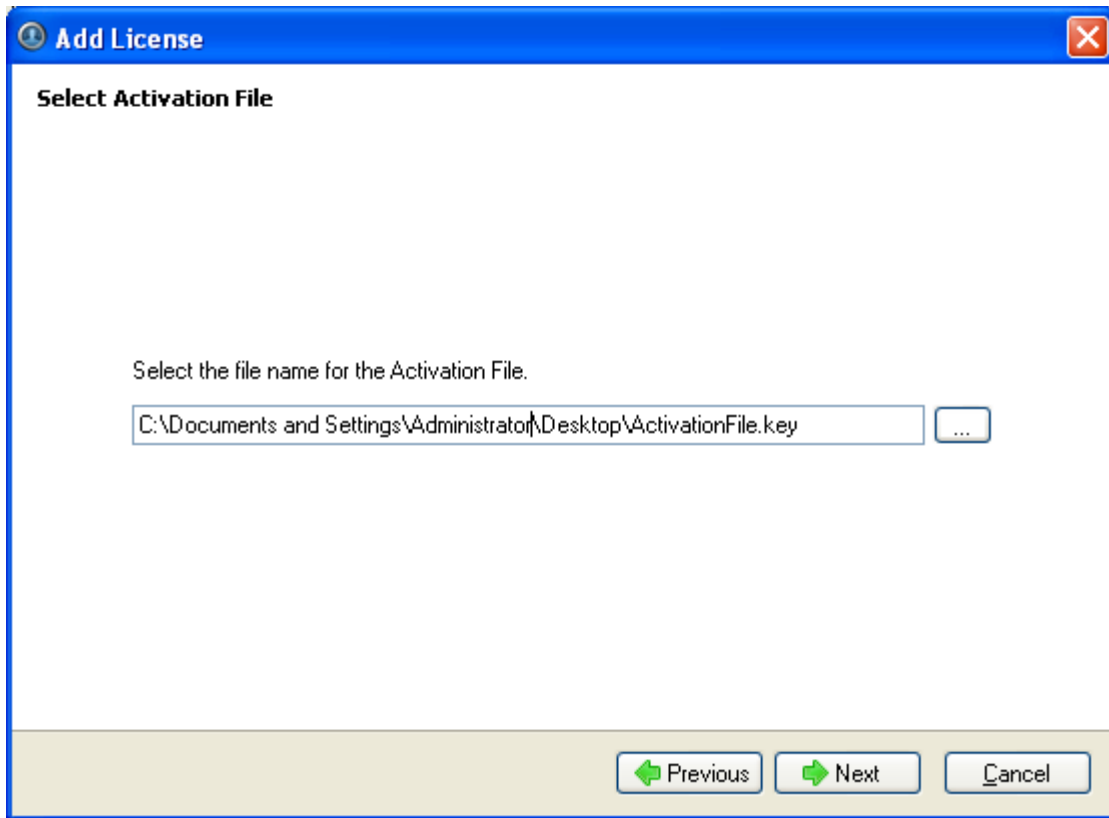


Figure D. Select Activation File page

7. The activation file is saved at the location you specified, then click **Next**.

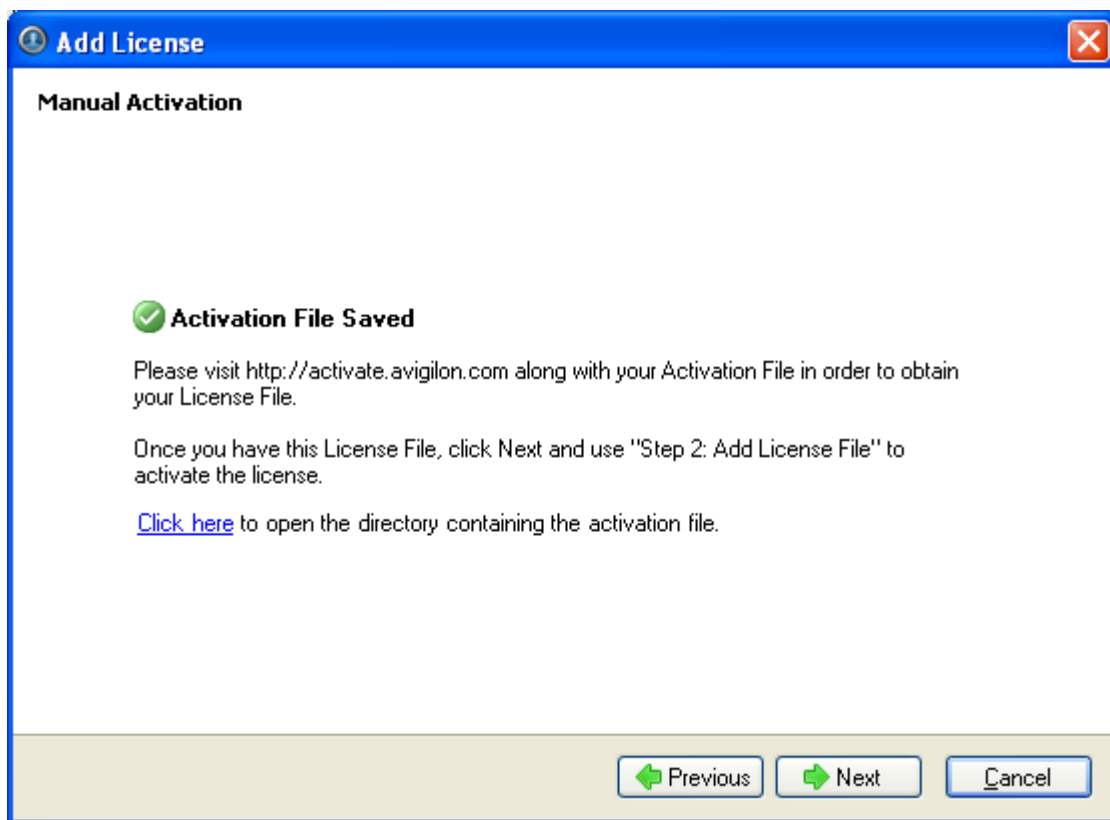


Figure E. Activation File Saved page

8. Copy the saved activation file to a computer with internet access.
9. Open a web browser and go to <http://activate.avigilon.com>.
10. Browse to the location of your activation file and click **Upload Activation File**.

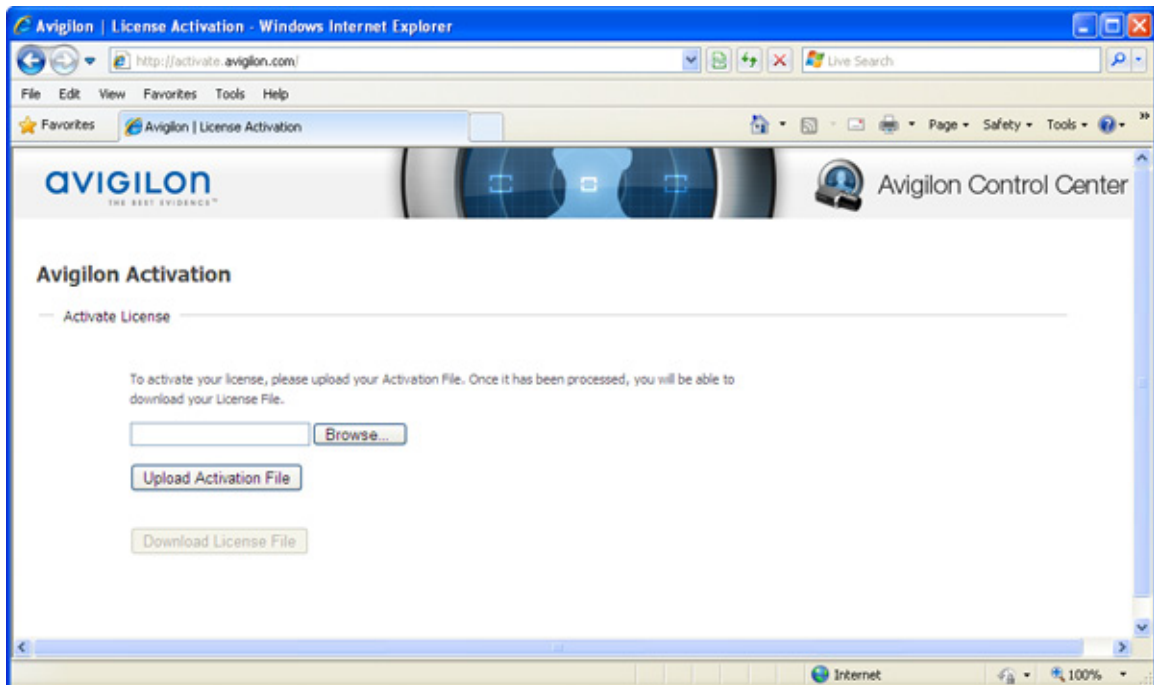


Figure F. Activation Website

11. Click **Download the License File** to download the activated license file.
12. Complete the product registration page to receive product updates from Avigilon, then click **Register**.

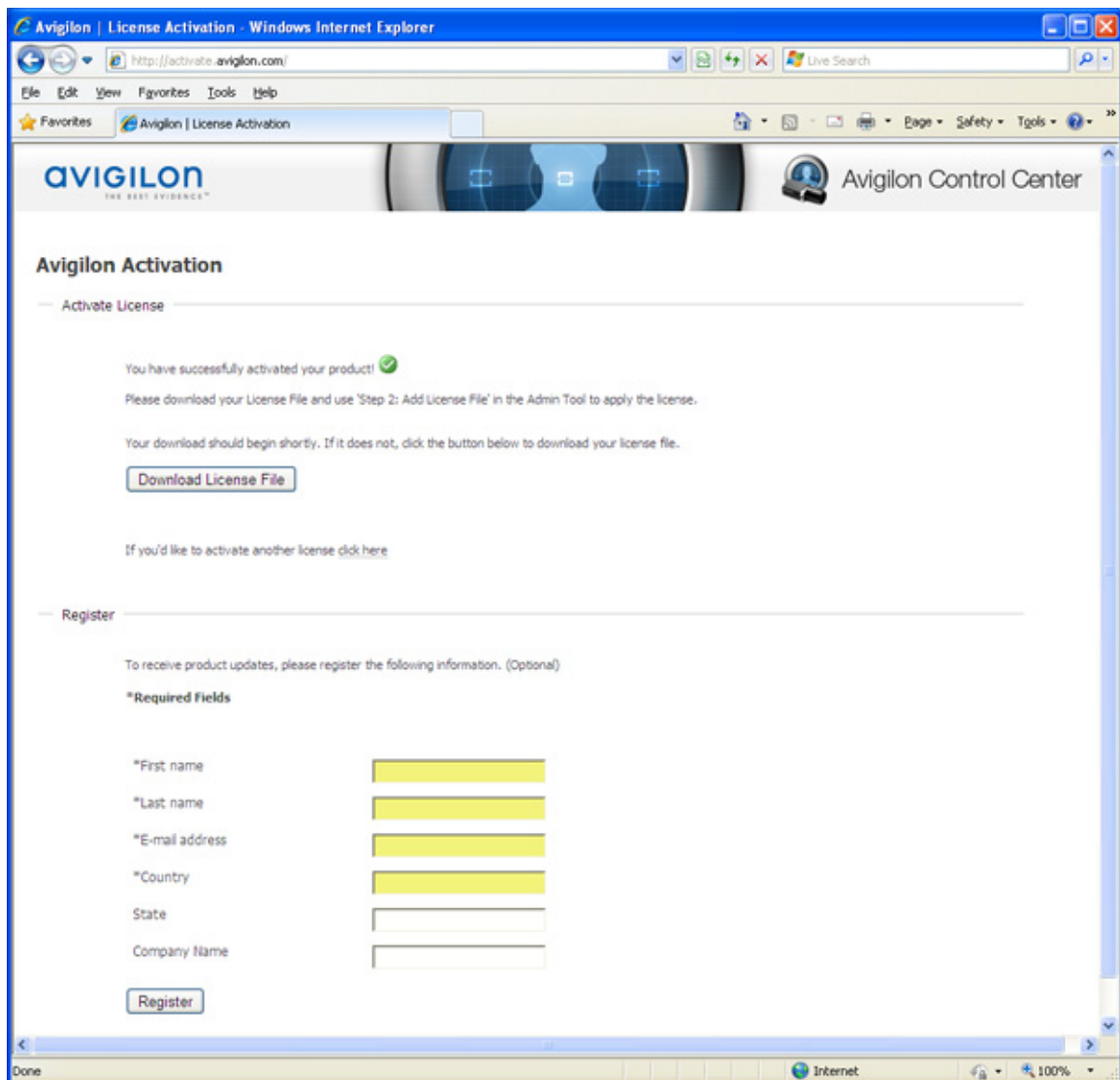


Figure G. Registration Website

13. Copy the downloaded license file onto the server you are activating.
14. Click **Step 2: Add License File**.

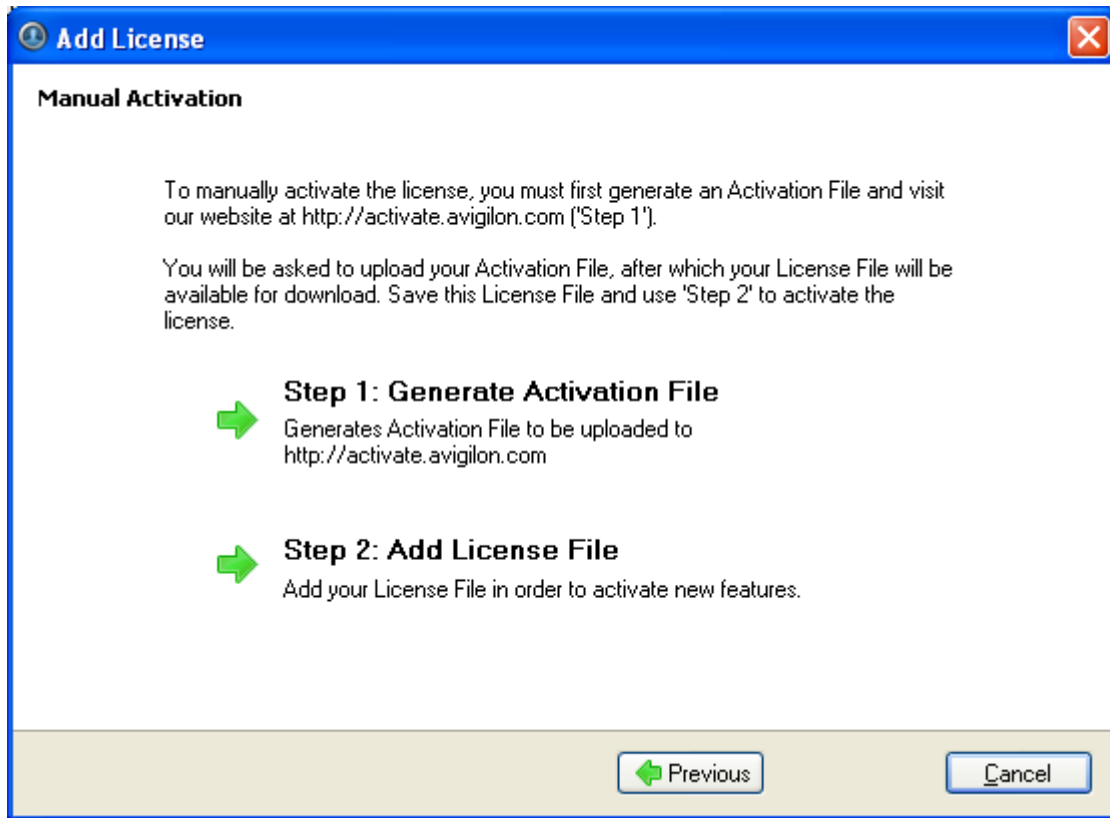


Figure H. Manual Activation page

15. Enter the location of the license file then click **Next**.

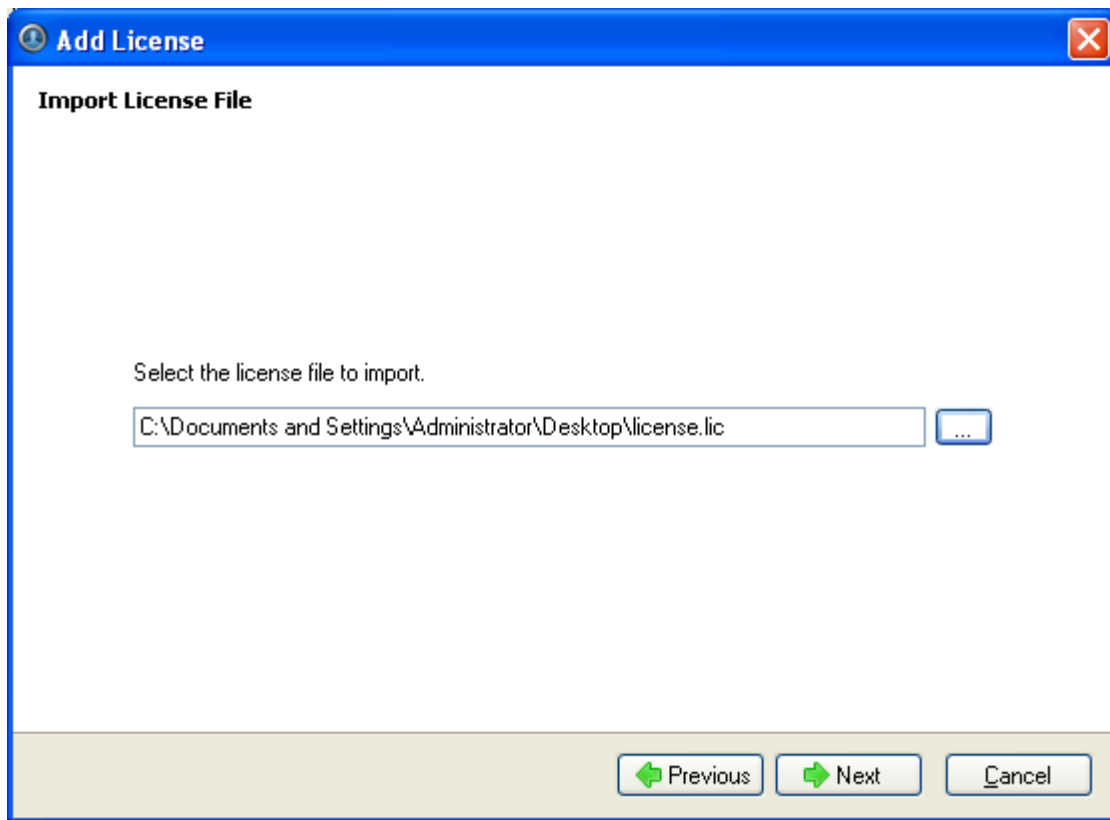


Figure 1. Import License File page

16. When the *Activation Succeeded* message appears, click **Finish**.

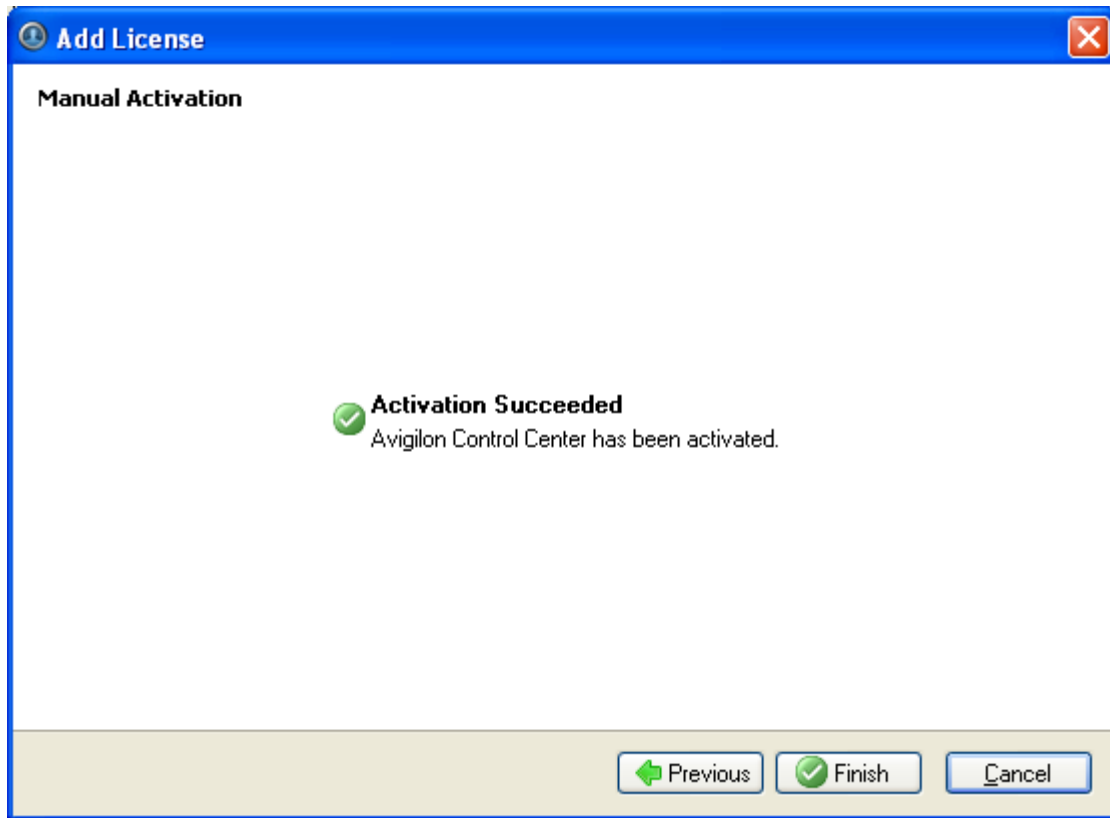


Figure J. Manual Activation Successful page

Configuring the Server Storage Settings

You must configure the server storage settings so the Avigilon Control Center Server software knows how much space is allotted to storing surveillance data, and where it should be located.

If the Admin Tool detects that there is no existing storage configuration, it will launch the Set Up Storage Configuration dialog box.

Accessing the Server Storage Configuration

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. Click **Shut Down**. The Control Center Server must be shut down before the storage configuration can be viewed or edited.
3. In the Settings tab, click **Storage**.

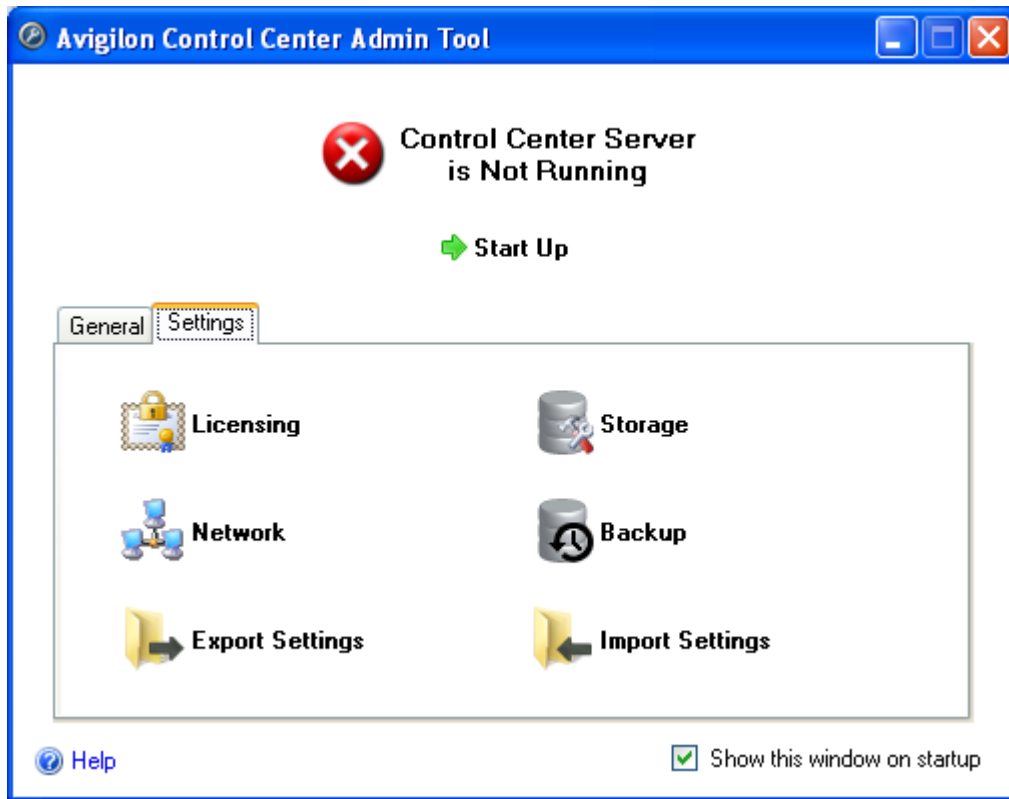


Figure A. Avigilon Control Center Admin Tool

4. In the Storage dialog box, you can see the current storage configuration.

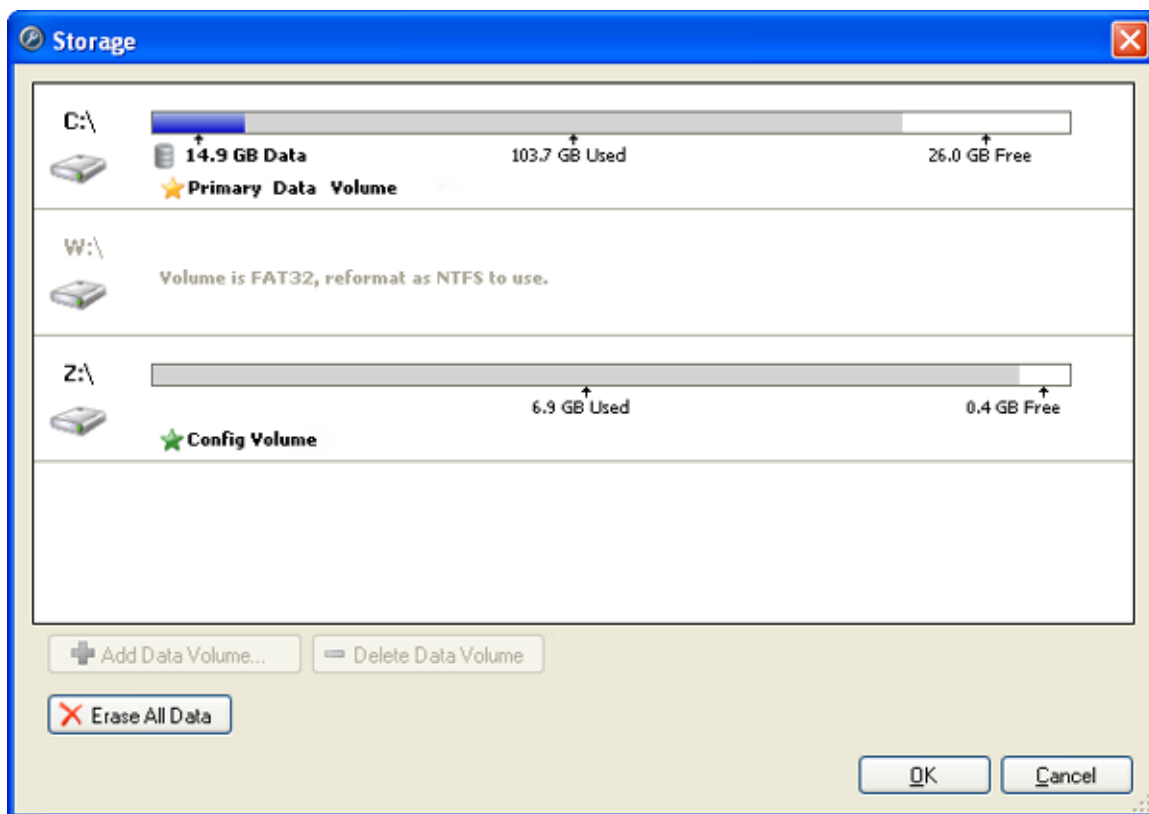


Figure B. Storage dialog box

Setting Up the Initial Server Storage Configuration

When the Avigilon Control Center Admin Tool detects that there is no existing storage configuration, it will launch the Set Up Storage Configuration dialog box with the recommended storage configuration.

By default the software attempts to set the Primary Data Volume on the largest available drive for storing surveillance data. The software attempts to set the Config Volume on the second largest available drive for storing system configuration information.

- If the recommended configuration is acceptable, click **Finish**
- If you want to change the configuration click **Change Storage Configuration**. See [Changing the Storage Configuration](#) for more information.

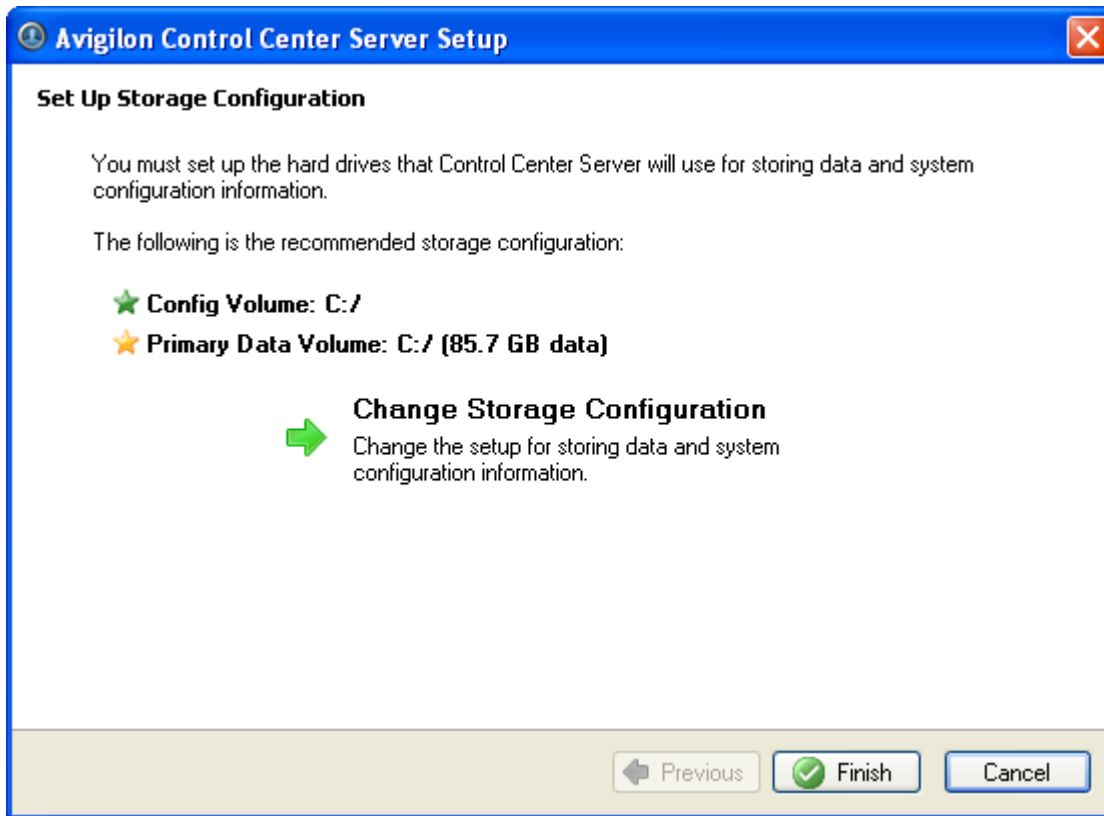


Figure A. Set Up Storage Configuration dialog box

Changing the Storage Configuration

You may need to change the storage configuration in the following situations:

- If you are unsatisfied with the suggested storage configuration in the Set Up Storage Configuration dialog box, click **Change Storage Configuration** to define the storage settings to fit your needs.
- If you recently chose to **Erase All Data**, you must reset the Storage configuration before you may continue.

Open the Storage dialog box and complete the following procedure:

If the Storage dialog box is not already open, see [Accessing the Server Storage Configuration](#) for more information.

1. In the Storage dialog box, select the drive you want to store the Config Volume on and click **Set Config Volume**.

The Config Volume stores all of the server settings. It is recommended to have the Config Volume on a separate drive from the Primary Data Volume.

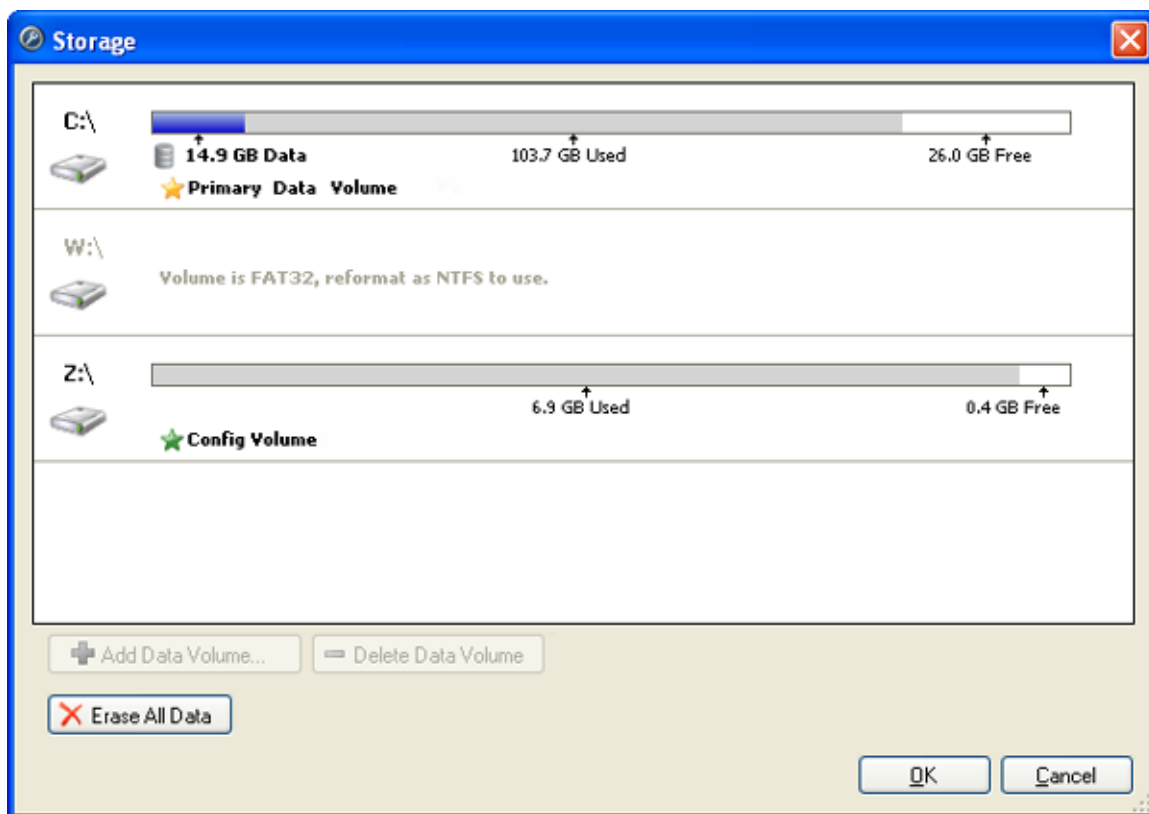


Figure A. Storage dialog box

2. To add a data volume, select the drive and click **Add Data Volume**.
 - o In the Add Data Volume dialog box, enter the preferred data volume size then click **OK**.

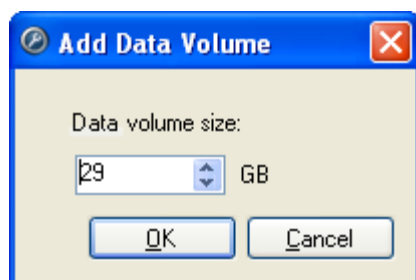


Figure B. Add Data Volume dialog box

3. If you are not satisfied with the location of the Primary Data Volume, select the drive you prefer to have the Primary Data Volume on and click **Set Primary Data Volume**.

The Primary Data Volume contains the database that indexes the surveillance data.

Note: The drive must have a data volume before it can be set as the Primary Data Volume.

4. When you are satisfied with the storage configuration, click **OK**.

Erasing the Storage Configuration

Note: If you choose to erase all stored data, be aware that all surveillance data and server settings will be lost.

1. Open the Storage dialog box. For more information, see [Accessing the Server Storage Configuration](#).
2. Click **Erase All Data**.
3. When the confirmation dialog box appears, click **Yes**.
4. You will need to create a new storage configuration before you can start the Control Center Server again. See [Changing the Storage Configuration](#) for more information.

Configuring the Server Backup Settings

Use the Avigilon Control Center Admin Tool to configure where surveillance data is backed up and stored.

To configure when surveillance data is backed up, see the *Avigilon Control Center Client User Guide*.

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the Settings tab, click **Backup**.

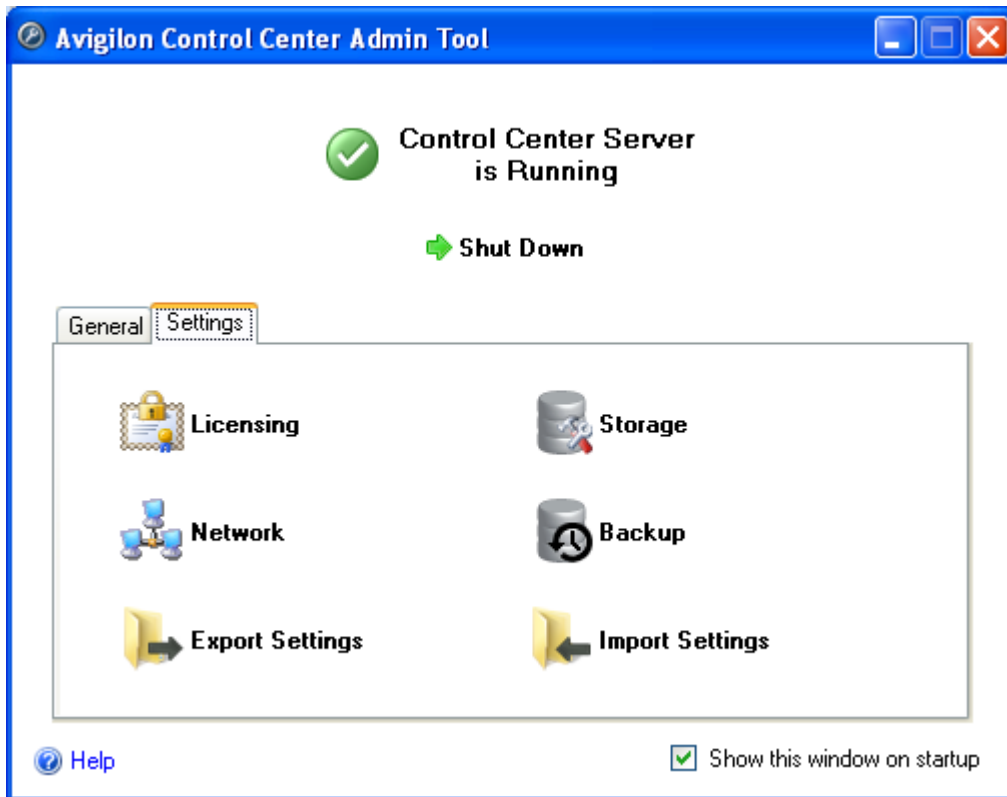


Figure A. Control Center Admin Tool

3. In the Backup dialog box, select the **Enable Backup** check box to enable the server to backup files.

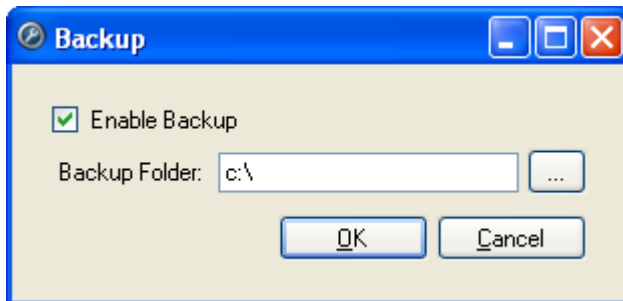


Figure B. Backup dialog box

4. Enter the location of the backup folder. Click [...] to browse to the backup folder location.
5. Click **OK**.

Configuring the Server Network Settings

The server communicates with the Avigilon Control Center Client software through a range of UDP and TCP ports. The port ranges only need to be changed if the Client software is trying to access two or more

servers that are behind the same NAT device (e.g. router); or if there is a port conflict with other software running on the same computer as the Avigilon Control Center Server software.

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the Settings tab, click **Network**.

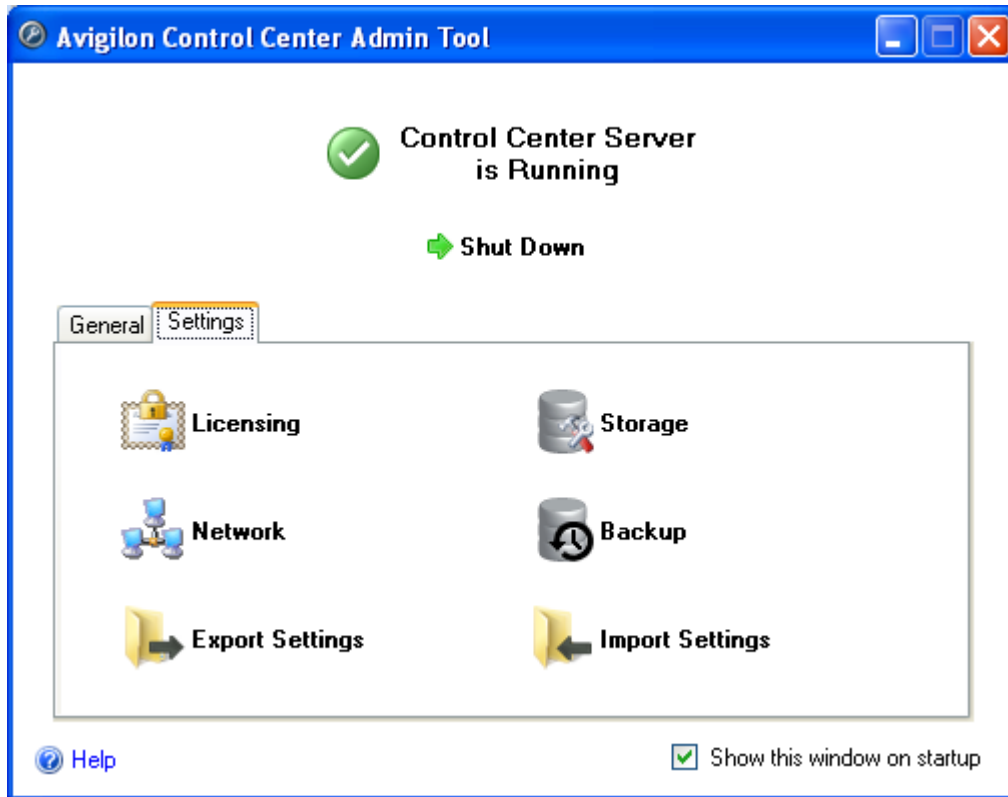


Figure A. Control Center Admin Tool

3. In the Network dialog box, enter the desired base port then click **OK**.

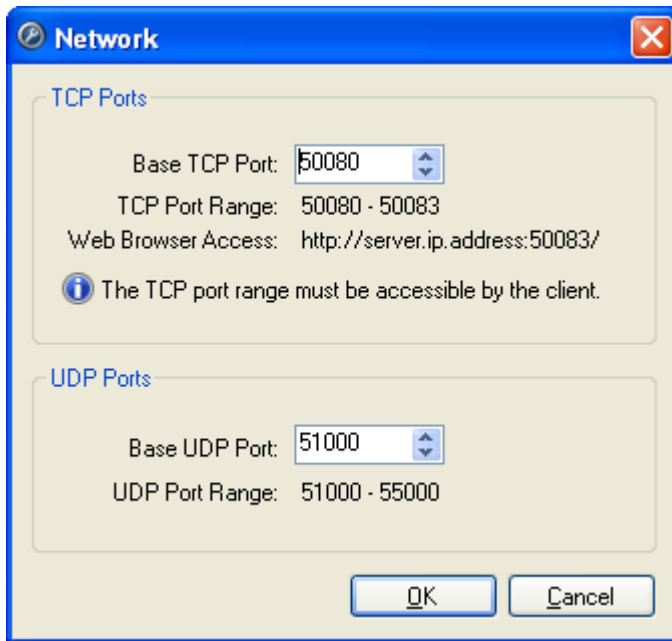


Figure B. Network dialog box

The UDP and TCP port ranges used by the Server software are updated as the base port changes.

The TCP port range must be accessible by the client computer and can be forwarded on any router or network address translation point between the client and server.

Web Browser Access: `http://<server IP address>:50083/` indicates how you can access the Avigilon Control Center Web Client. See [Starting the Avigilon Control Center Web Client](#) for more information.

Using the Admin Tool

Besides configuring the server, the Admin Tool can also be used to perform the following procedures:

Starting Up and Shutting Down the Avigilon Control Center Server

The Avigilon Control Center Server software automatically starts when Windows starts but it can be manually shut down and started through the Avigilon Control Center Admin Tool.

Shutting Down the Control Center Server

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the Admin Tool, click **Shut Down**.

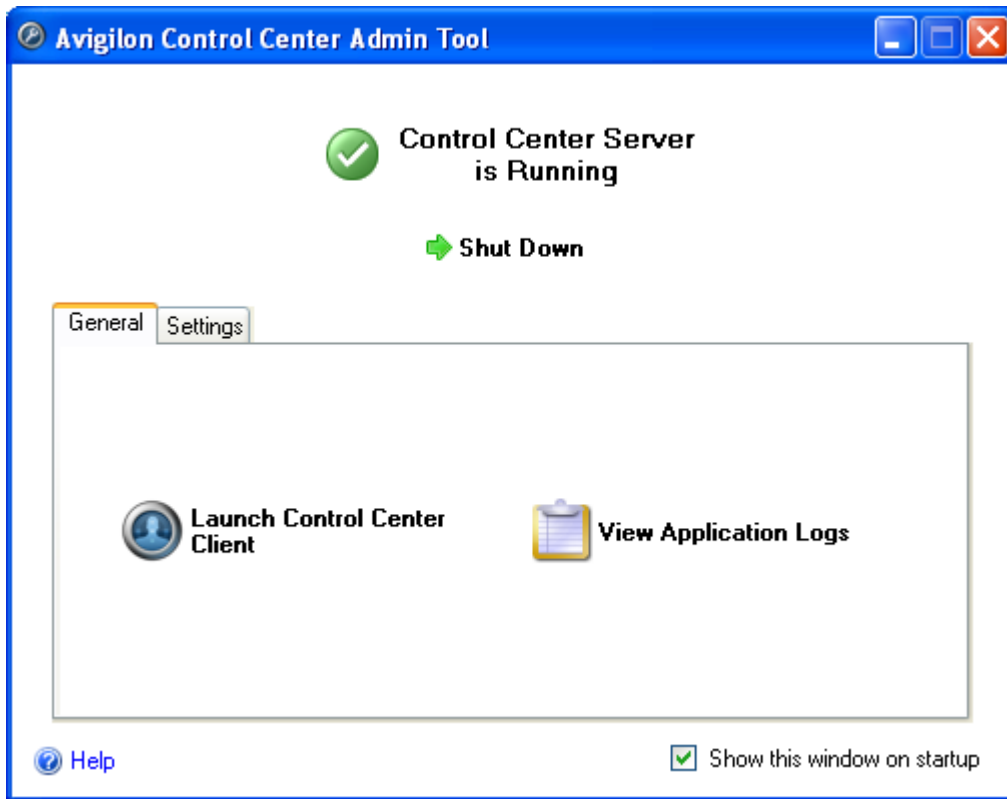


Figure A. Admin Tool: Control Center Server is Running

When the Control Center Server is properly shut down, the Admin Tool will display the following status message: *Control Center Server is Not Running*.

Starting up the Control Center Server

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the Control Center Admin Tool, click **Start Up**.

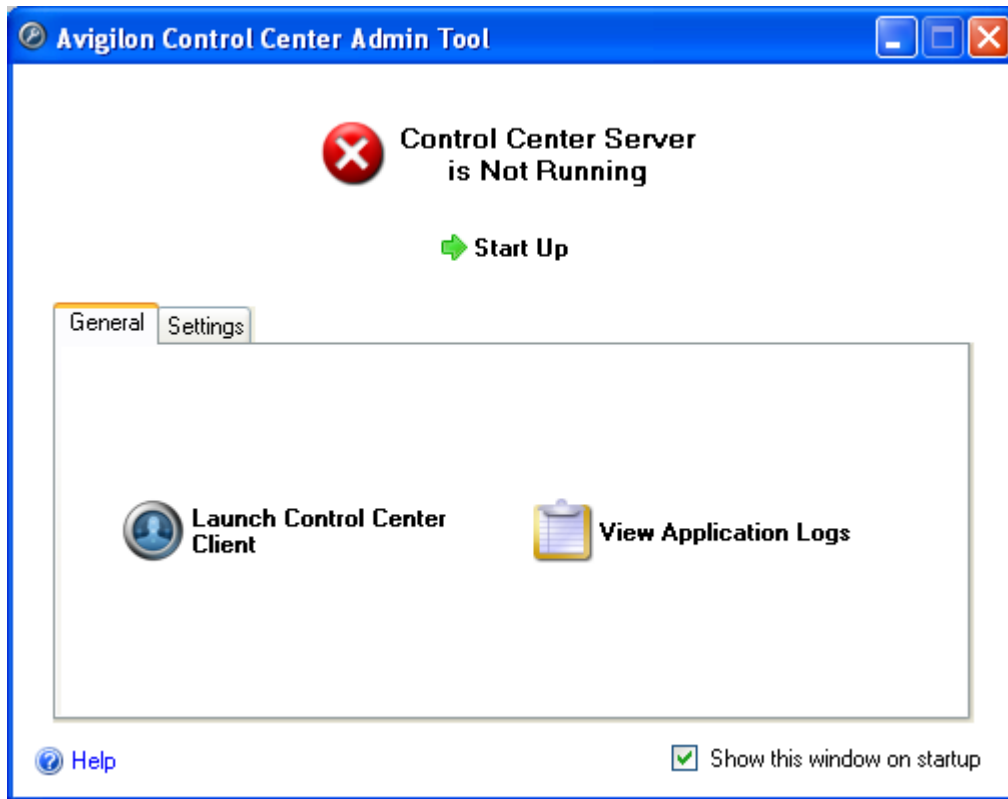


Figure B. Admin Tool: Control Center Server is Not Running

When Control Center Server is properly started, the Admin Tool will display the following status message: *Control Center Server is Running.*

Starting the Avigilon Control Center Client

The Avigilon Control Center Client software can be started through the Avigilon Control Center Admin Tool.

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the General tab, click **Launch Control Center Client**.

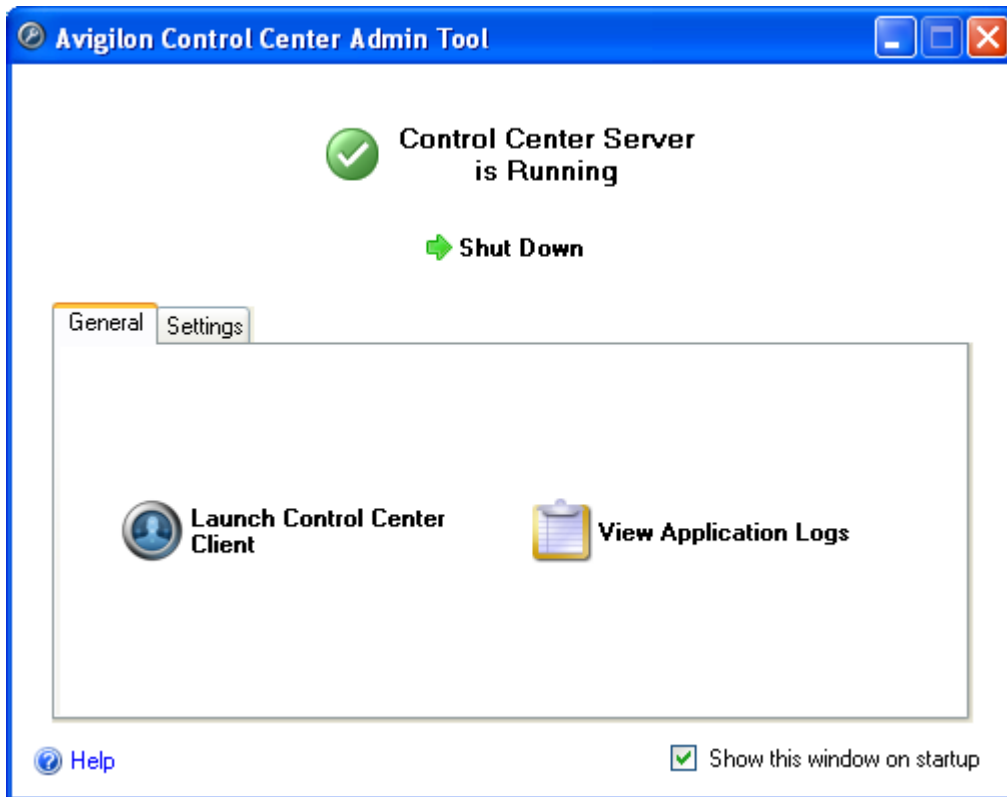


Figure A. Admin Tool

If the Client software is not installed, the Admin Tool will prompt you to install it.

Starting the Avigilon Control Center Web Client

The Avigilon Control Center Web Client is a simplified version of the Client software that allows you to monitor video from any Internet Explorer web browser.

Note: The Web Client is can only be accessed through Internet Explorer.

To access the Web Client, you need to know the IP address of the Avigilon server you want to access, and the server's web access port number. The Network dialog box displays the web browser access port, see [Configuring the Server Network Settings](#) for more information.

1. To access the Web Client, open Internet Explorer and enter the following address:
`http://<server ip address>:<port number>/` (For example, `http://192.168.2.62:50083/`)

If you have not accessed the Web Client before, you may be prompted to install the required software before the Web Client will open.

2. When the login screen appears, enter your username and password for the server.

The Web Client is opened in your browser, and you can access the video and cameras stored on the server.

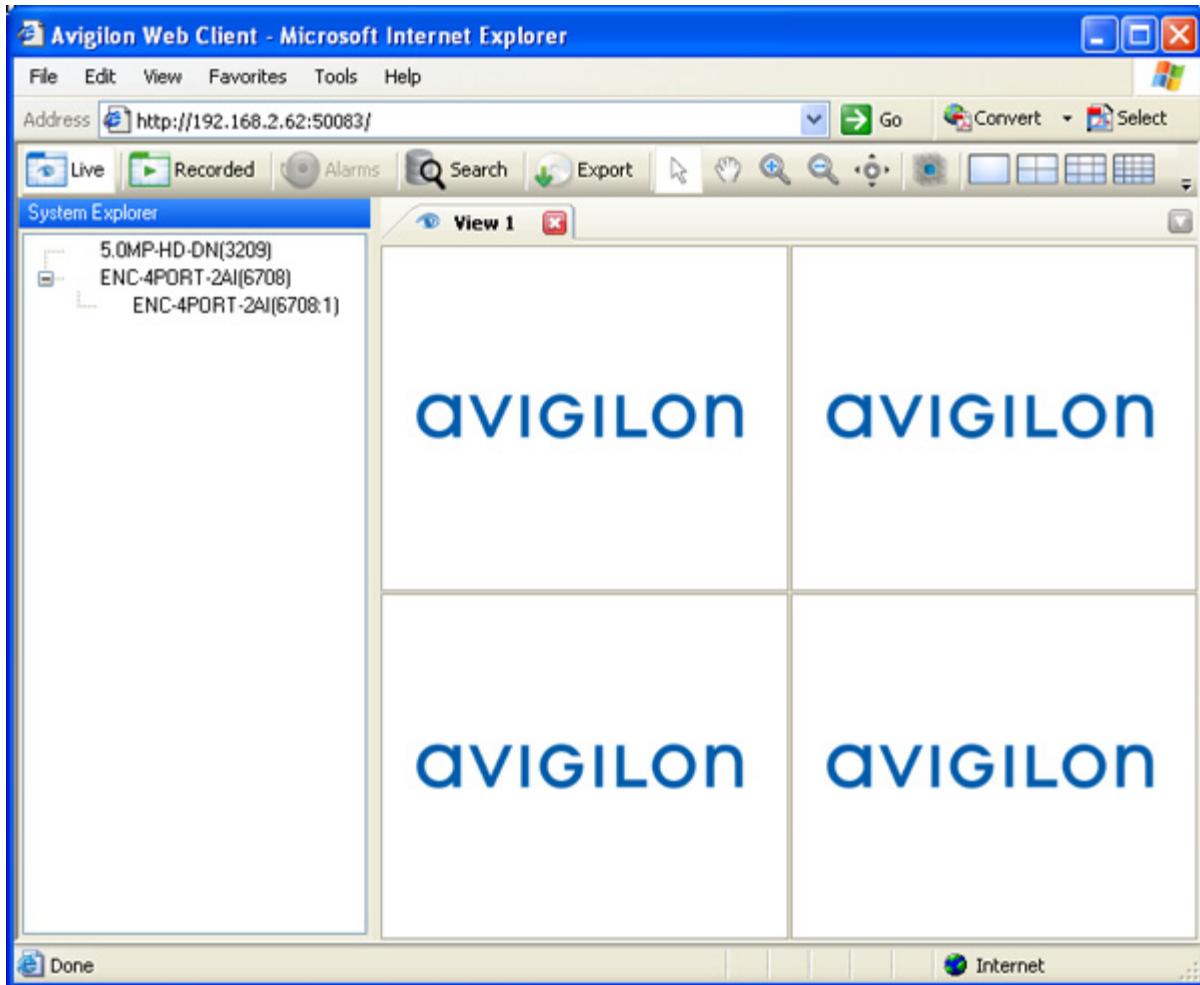


Figure A. Avigilon Control Center Web Client

Viewing Application Logs

You can view the Avigilon Control Center application error logs through the Admin Tool. This can assist in diagnosing problems with your system.

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. In the General tab, click **View Application Logs**.

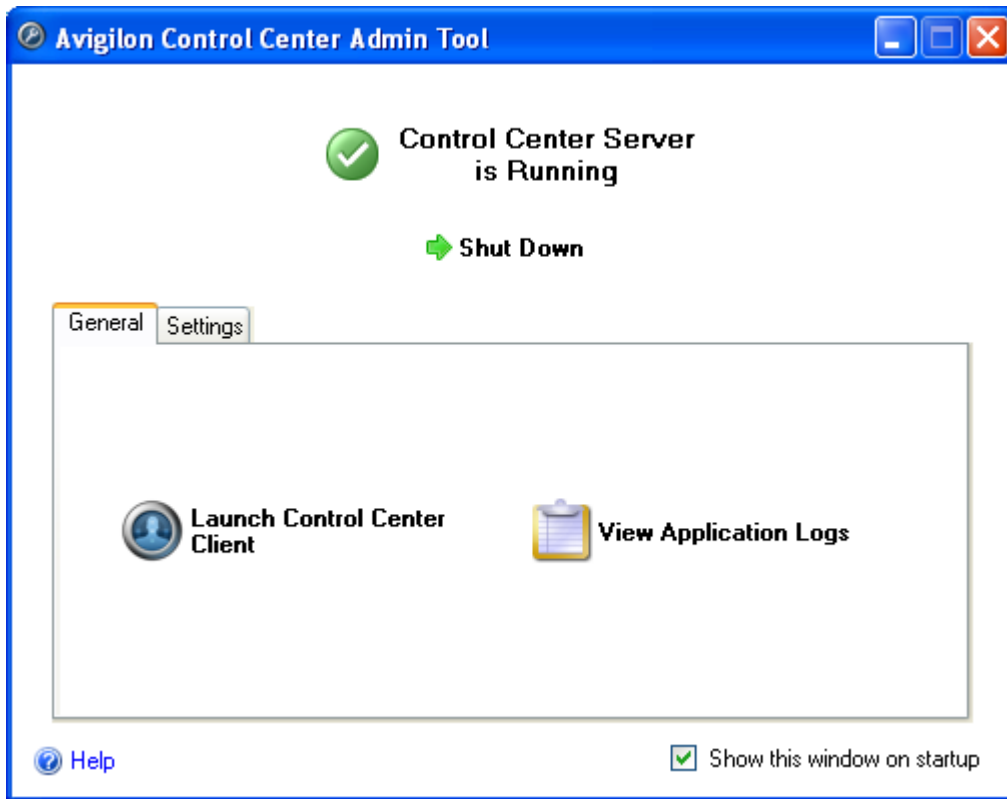


Figure A. Admin Tool

3. The Application Logs dialog box appears. Double-click an error to view the details.

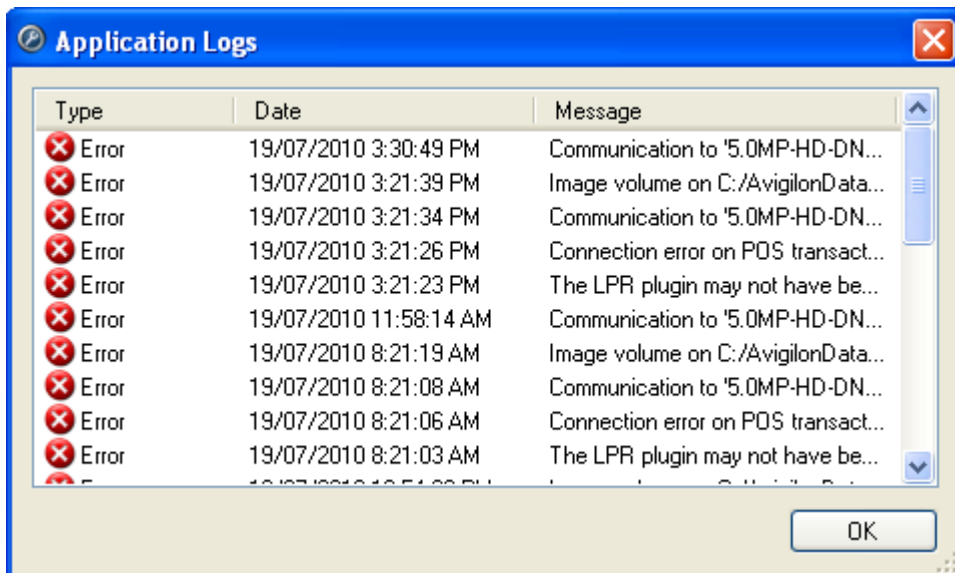


Figure B. Application Logs dialog box

4. Click **OK** to close the Application Logs dialog box.

Exporting and Importing Settings

Once the Avigilon Control Center is set up, you can export the server's configuration data to be used on different servers.

The configuration data is defined in the Avigilon Control Center Client software, and includes Recording Schedules, Users & Groups, Device Settings, Rules, Alarms, POS Sources, and Device Connections.

Exporting Server Settings

Export the server configuration data so it can be used on other servers within your network.

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. Click **Shut Down**. The Server software must be shut down before settings can be exported.
3. In the Admin Tool Settings tab, click **Export Settings**.

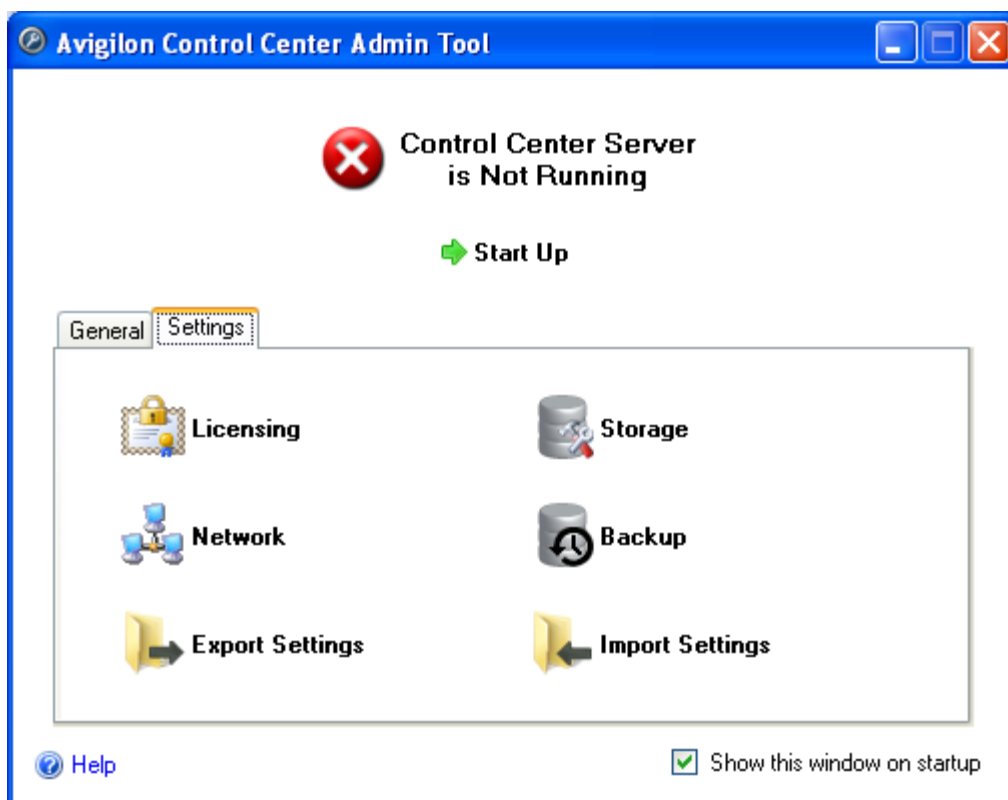


Figure A. Admin Tool

4. In the Export Settings dialog box, select the settings you want to export and click **OK**.



Figure B. Export Settings dialog box

The settings listed in the Export Settings dialog box are configured in the Client software. See the *Avigilon Control Center Client User Guide* for more information about each of the settings.

5. In the Select File to Export To dialog box, name the file and click **Save**.
The settings can only be exported as an Avigilon Servers Settings (AVT) file.
6. When the confirmation dialog box appears, click **OK**.

Importing Server Settings

1. Open the Admin Tool. See [Admin Tool](#) for more information.
2. Click **Shut Down**. The Control Center Server must be shut down before settings can be imported.
3. In the Admin Tool Settings tab, click **Import Settings**.

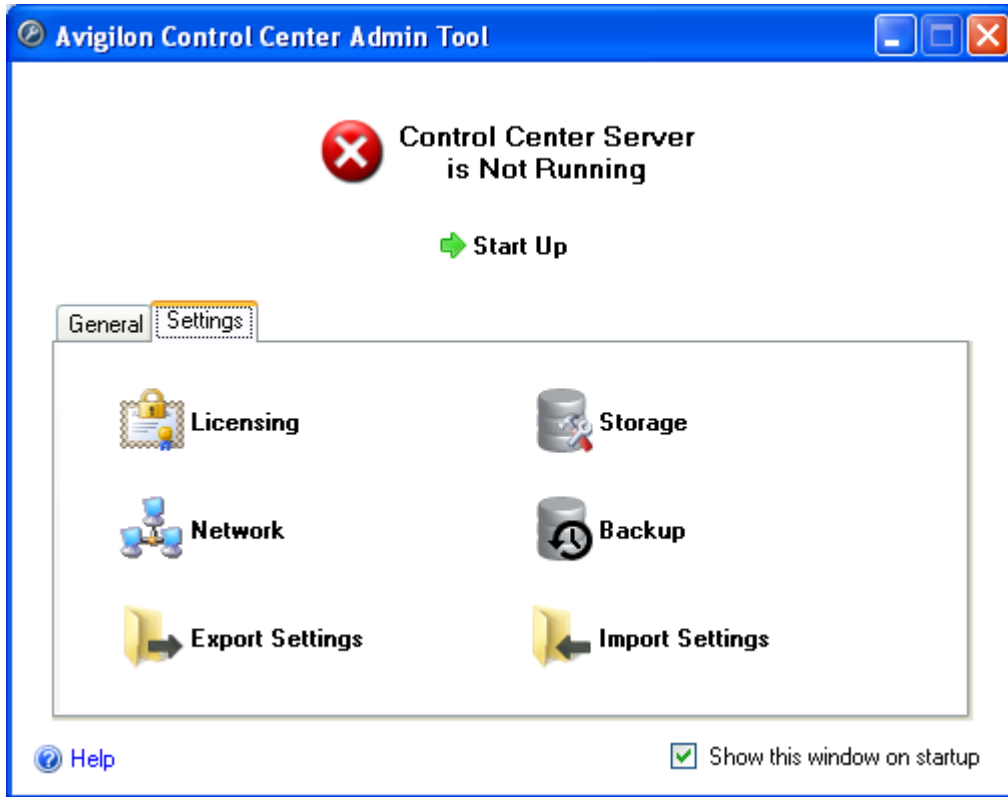


Figure A. Admin Tool

4. In the Select File to Import dialog box, browse to the location of the settings file you want to import and click **Open**.
5. In the Import Settings dialog box, select the settings you want to import and click **OK**.

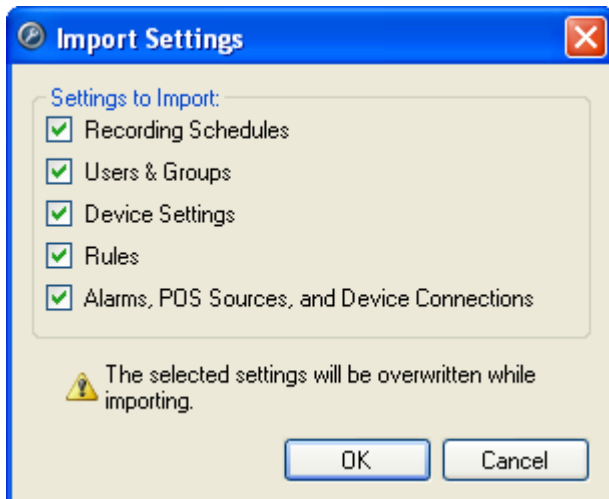


Figure B. Import Settings dialog box

6. When the confirmation dialog box appears, click **OK**.

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