10 Questions to Consider Before Purchasing a Video Surveillance System

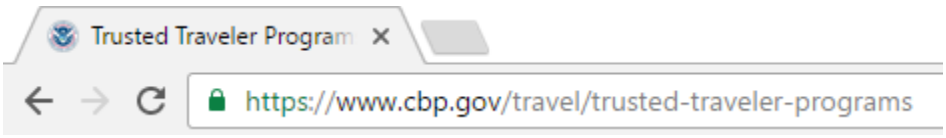
Is my security system cyber-secure?

Before installing any product connected to the Internet you should be aware of the implications on the security of your network.

Is your connection secure?

When connecting to your recorder over the Internet you can determine if your connection is secure by looking for a "lock symbol" or "s" at the beginning of the URL utilized to access your system in a browser.

Secure Connections Begin with https://



Is the product developed by a company known for posing a cyber-security risk?

Most of today's low cost surveillance systems are developed outside the United States by Original Equipment Manufacturers known for posing a cyber security threat to you and your business. Here are some recent articles to help educate you on this important security matter:

- Backdoor Confirmed in Product's from World's Largest Camera Manufacturer
- Cyber Advisory on Camera and Recorders from the US Department of Homeland Security
- Directory of Affected Video Surveillance Systems
- Cyber Advisory on Large Manufacturer from the US Department of Homeland Security
- Directory of Rebranded Video Surveillance Systems
- Wall Street Journal: Hackers Infect Army of Cameras, DVRs for Massive Internet Attacks
- Krebs on Security: IoT Devices Under Siege
- Cyber Security Online: Hard-Coded Password Exposes Up To 46,000 Video Surveillance DVRs To Hacking
- Forbes: How Hacked Cameras Are Helping Launch The Biggest Attacks The Internet Has Ever Seen

Does the product require you to open any inbound ports on your firewall?

The most secure platform architecture will not require you to open any inbound ports on your firewall. Be sure to take the appropriate precautionary measures if the product you select requires inbound port access to facilitate remote viewing over the Internet.

For more information about AvertX Cyber Security visit our Cyber Security Page

Do I want Cloud Recording or Onsite Recording?

A key consideration in selecting a video surveillance system is whether your video will be recorded locally or in the cloud. If your video surveillance needs are limited to a small number of cameras a cloud recording solution may be a reasonable alternative. Here are 5 reasons an onsite recording solution may be a better fit for you:

1. An onsite system will enable you to record higher resolution video. Cloud recording solutions are limited to 720p or 1080p.
2. An onsite recording solution will enable you to store your video for longer. Most cloud recording solutions limit video retention to 7, 14, or 30 days depending on the plan selected.
3. An onsite recording solution will not use your Internet bandwidth unless you are actively viewing video remotely. Cloud recording solutions will constantly use your bandwidth, even when you are not viewing the video remotely.
4. An onsite recording solution will provide a better video streaming experience when viewing over your high speed local area network. Cloud recording solutions must always transmit video over the Internet, which is typically a much slower connection.
5. There are no recurring monthly fees associated with an onsite recording solution. For example, 30 days of recording on 8 cameras, a popular cloud recording plan would cost $1500 per year.

But why choose?

The AvertX ProConnect video surveillance platform is a hybrid solution that offers the benefits of cloud management, online video backup, and online software updates while continuing to deliver the performance of onsite video recording.

Do I want wired or wireless cameras?

The prospect of placing a camera anywhere without running a wire is very attractive. However, wireless camera systems are not truly wireless. A wireless camera must have a power source or battery to provide video 24/7. The requirement for a power source or periodically changing batteries of a wireless camera greatly diminishes the benefits of having a wireless system. AvertX IP cameras obtain power from the NVR and send video over a single Ethernet cable up to 300 feet. Running Ethernet cable to a camera location is usually much easier than adding a new power outlet.

In addition, reliable performance may be difficult to achieve with a wireless system. Wireless cameras may encounter signal interference, have lower resolution and speed and have less control over the video. To achieve the absolute best overall performance, reliability, longevity and flexibility for video surveillance—especially for outdoor applications—a good quality wired IP system is the best answer.

Analog or IP?

There are many reasons for investing in an IP system over an analog system. Here are the top 5:

1. A digital format allows for much more control and flexibility for video capture, recording, playback, and transmission of the video over the internet and to tablets and mobile phones.
2. IP Cameras are capable of higher resolution for crisp video, image control and digital zoom.
3. IP Cameras are easy to install with single cable for both power and video. If you have existing network wiring, you can piggyback off it for an even faster installation!
4. IP cameras have intelligent features built-in, such as zoned motion sensing and privacy masking.
5. IP systems can be updated with easy-to-apply software upgrades, extending the life of your investment.

How fast of an Internet connection do I need?

A high performance remote viewing experience is important to most video surveillance system users. Generally speaking, most users will have adequate "download" bandwidth to facilitate the simultaneous viewing multiple HD video streams. However, some users may not have adequate "upload" bandwidth available to facilitate the transmission of HD video from the recorder to the remote user. For a reasonable remote viewing experience AvertX recommends a minimum upload bandwidth speed of 5Mbps. You may easily determine your upload speed by visiting www.speedtest.net

Am I up for the challenge of installing a video surveillance system?

We understand that a professional grade system from AvertX is a significant investment so thinking through a plan to accomplish your objectives will result in the best outcome. We recommend the following minimum precautions to help make the installation a successful experience:

- Start with a plan to include the location of the NVR, location of the cameras and type of cameras.
- The most challenging aspect of installing an AvertX system is running the camera cables. Make a plan for the route the cables will take from the NVR to the camera location. Have the necessary tools to run wire from the NVR to the cameras and to mount the cameras.
- For safety reasons, especially if climbing ladders, AvertX recommends a minimum of two people working together to install a system.
- If needed, you may want to consider hiring a qualified installer or certified electrician to run the wire and install the cameras in accordance with your plan. The AvertX Pro Team can walk you through final connections and setting up the system.
- For more information about installing your system, consult our Installation Planning Guide

What camera is right for you?

AvertX offers two general types of fixed IP cameras: bullet cameras and dome cameras. Both types are versatile and can be used in a variety of applications. However, bullet cameras and dome cameras each have different advantages to consider in the design and installation of your system.

Bullet Cameras

- It is easy to tell which way a bullet camera is pointed. Use a bullet cameras in locations that you want people to know that a camera is pointed at them.
- Bullet cameras are easy to mount and aim – no dome to remove for access.
- Ball joint mounts on bullet cameras allow for easy installation on a wide variety of surfaces including surfaces with angles and uneven surfaces like stucco.
- Available with fixed lens (HD420) and Autofocus Zoom Lens (HD920).
- Optional mounting accessories for bullet cameras are available from AvertX.

Dome Cameras

- It is hard to tell which way a dome camera is pointed. Use a dome camera in locations that you don't want people to know which way the camera is pointed. Dome cameras are popular in retail settings for this reason.
- Dome cameras are visually appealing and may be painted to match your exterior. Most AvertX dome cameras include paintable covers.

- Because the mounting hardware and camera lens is enclosed in a high-impact dome, dome cameras are more secure against vandalism. For the same reason, dome cameras require more effort and care to install.
- Available with fixed lens (HD320) and Autofocus Zoom Lens (HD820).
- Optional mounting accessories for dome cameras are available from AvertX.

Where should I place my cameras?

Camera placement is crucial to getting clear video. Here are a few tips to get the most of your cameras:

- Mount cameras at least 10ft off the ground for best field of view and to ensure the camera is out of reach of an intruder.
- Do not point cameras directly into the sun or highly reflective surfaces.
- Avoid placing cameras in areas where water may flow freely during rainfall – mounting under eaves or overhangs is ideal.
- Run camera cables out of sight and reach to avoid tampering
- For more information about camera placement, consult the AvertX DIY Corner

How will I run the cables?

- Your system or camera kit includes 100ft of Cat5e cable. This should work for most installations, however if more cable is required it must be purchased separately and cannot exceed 300ft per camera unless a PoE injector is installed along the line.
- Run Ethernet cable away from electric motors/industrial equipment or industrial lighting or similar items that may generate a high level of electrical noise or interference. In some cases, it may be necessary to run shielded (STP) Ethernet cable.
- AvertX recommends protecting your cable by running through conduits or inside a wall since the cable is not outdoor or plenum rated.
- AvertX cameras and cables have waterproof connectors eliminating the requirement for a sealed electrical box to protect the connection.

Where should I place my NVR?

The NVR is the heart of your system, and careful consideration must be taken to make sure it is protected and reachable by your camera cables.

- The NVR should be placed in a dry space that does not exceed the listed operating temperature specifications for the NVR – attics or garages are usually not ideal unless careful preparations are made. Avoid placing the NVR in areas with no airflow or near flammable materials.
- AvertX recommends a bench test before installing your system. After unpacking the system, connect all cameras and boot up the system before proceeding with installation.
- The NVR has an onboard fan for cooling. This fan is about as noisy as an average PC fan. Consider fan noise in your placement plan if you are sensitive to low level fan noise.
- For more information about NVR placement, consult the AvertX DIY Corner

What if I need help?

An IP video security system can be complicated and you may need to contact customer support. The AvertX PRO Team is US-based and is available for design or installation advice via phone or email. Call 855-228-3789 for advice or a free demo!