

Merit LILIN Application Note

How to connect P2P driver for NVR408m

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Dept : Technical Support, Taipei

Subject: How to connect NAV P2P driver for NVR408m

Description: LILIN NVR408m can stream video by LILIN Navigator Enterprise (NAV) via 3G/4G dongle. This document describes the way for 3G/4G connection via P2P driver.

Features:

1. P2P 3G/4G video recording at Navigator Enterprise
2. WiFi video sync if NVR's WiFi is in the cover range
3. GPS Google Map recording in NVR408m
4. Remote video download from NVR via Navigator Client

Firmware:

NVR116/109/104/404c/408m: version 1.0.59 or above

NVR1400/NVR2400/100/200/400: version 1.1.59 or above

Certified USB 3G/4G dongles:

1. Android Smartphone with 3G/4G connection
2. D-Link DWM-221 4G LTE
3. ALCATEL One Touch L800 4G LTE
4. Huawei mobile broadband E3372H
5. RJ-45 to 3G/4G dongle

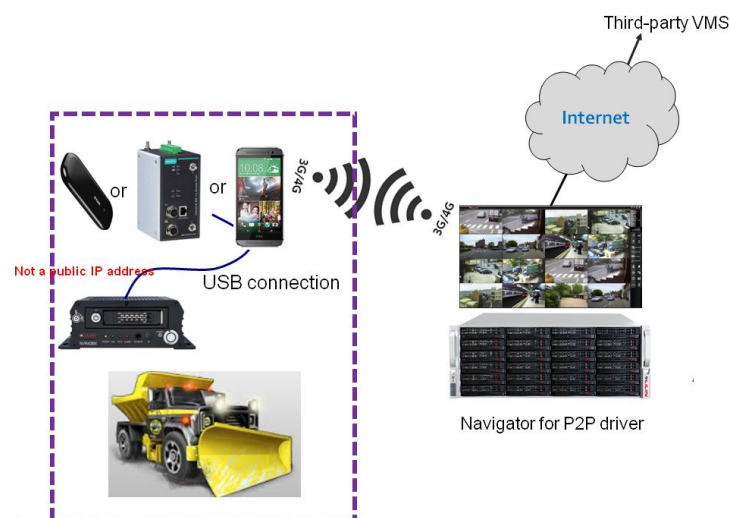


Certified USB GPS dongles:

Navisys GR-A013

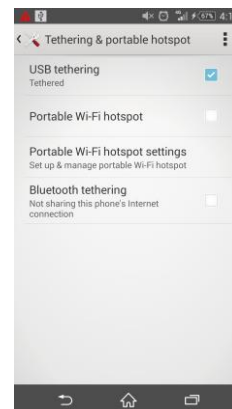
Navisys GR-801

3G/4G P2P System Architecture



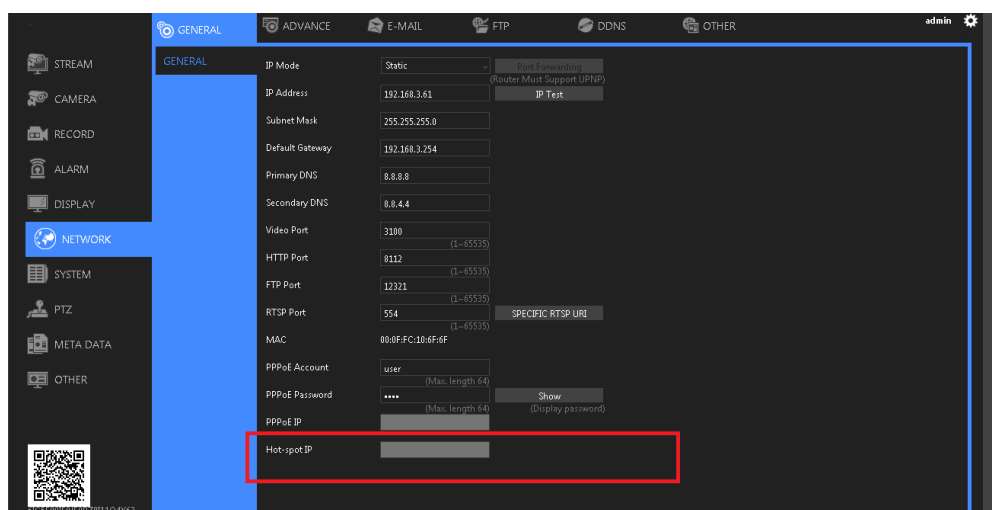
NVR Series with P2P function

1. Connect an Android Smartphone to NVR via USB cable.
2. Turn on your Android USB hotspot. For “Sony Z series” phone, the path for turning on USB hotspot is as below at Settings->Tethering & portable hotspot->USB tethering.

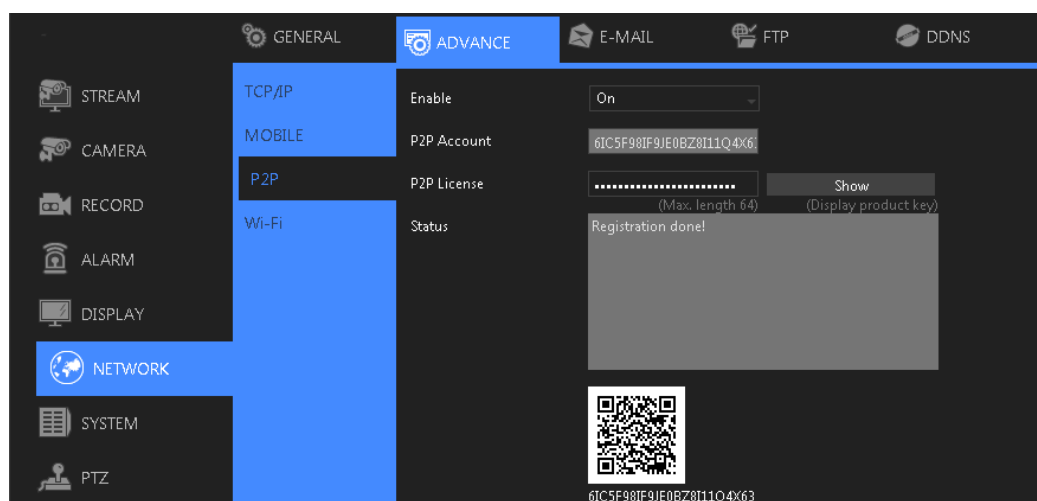


3. If NVR connection via 3G/4G is established, the NVR will show the “Hotspot IP” as below.

Note. The NVR detects the Android hotspot every 10 seconds.



4. Setup your P2P account. Visit NVR webpage at Configure->Network->General->“P2P account”. You can also purchase P2P license and enter the license key at P2P License.



Note: For testing purpose, a P2P account is available. **Please consult Steve Hu for your P2P account.**

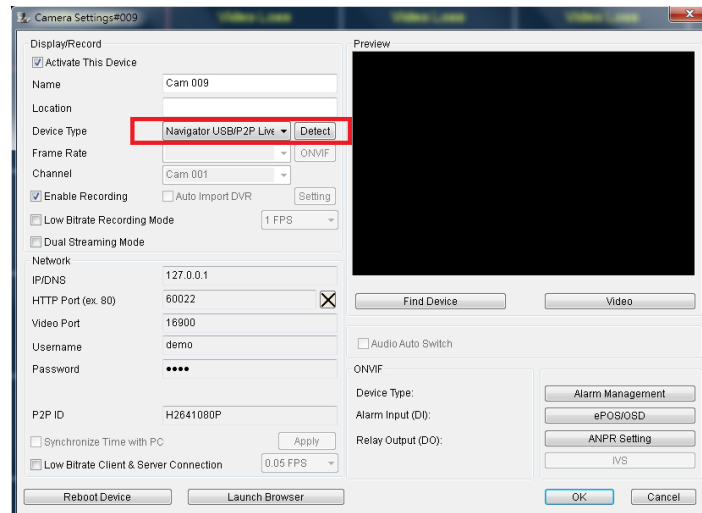
5. The NVR updates the P2P information around every 2 minutes to the P2P cloud,



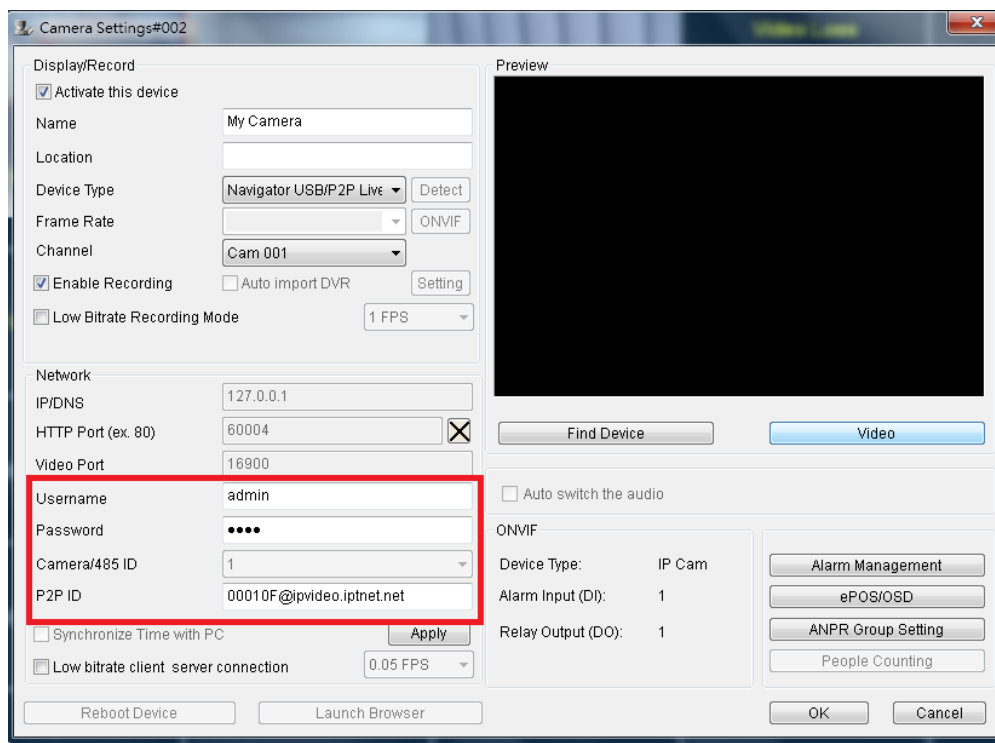
after the Android hotspot has been opened. Wait a couple minutes before connecting the NVR for video via Navigator Enterprise.

Navigator Enterprise for Video Recording

Select one of the camera on Navigator Enterprise, right mouse click and select Properties. In Camera Settings dialog box, choose “Navigator USB/P2P Live” driver from Navigator Enterprise.

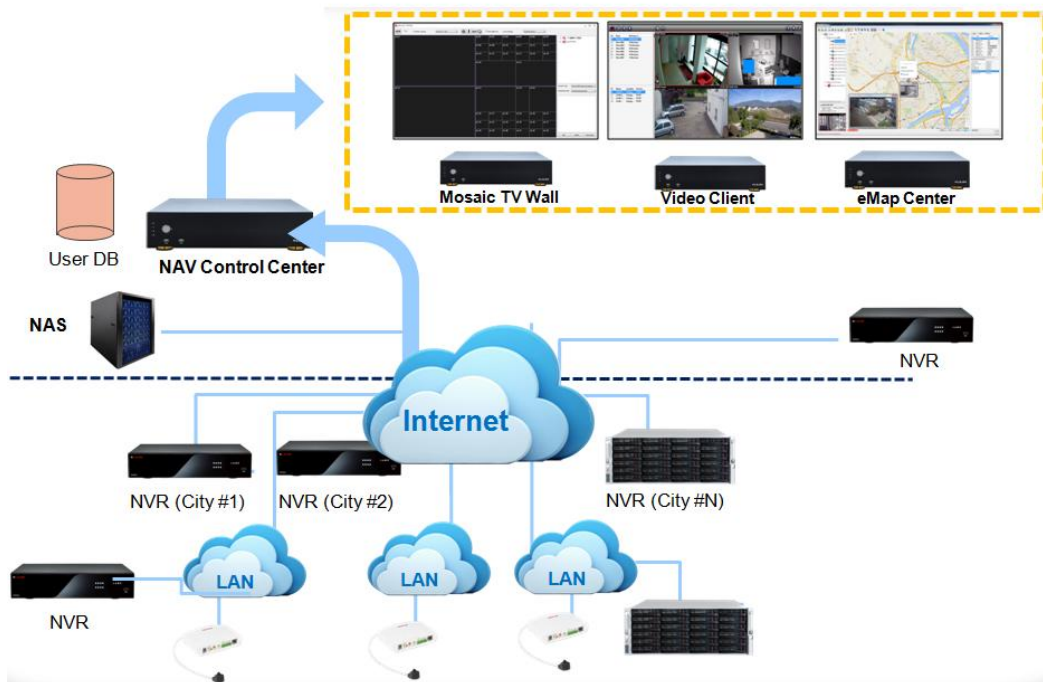


6. Fill up P2P ID, username, and password for the NVR. The default username is admin and default password is 1111.



Navigator Control Center

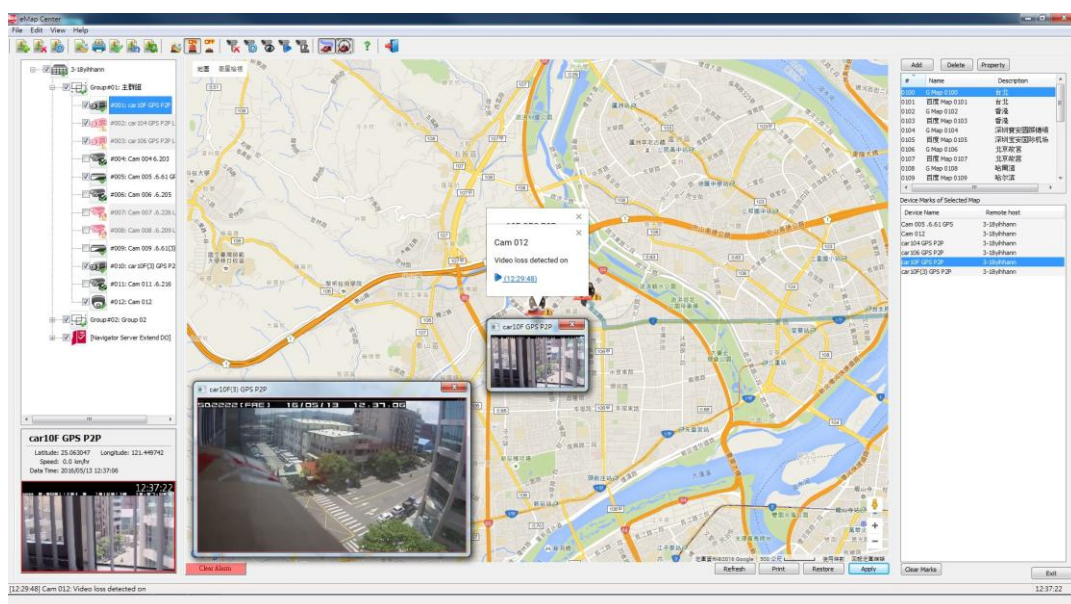
Navigator Control Center can send video and GPS information to an eMap center. eMap center can then display the vehicle position in a map for fleet managing.



Visit the user manual of Navigator Control Center for adding the Navigator Enterprise machine.

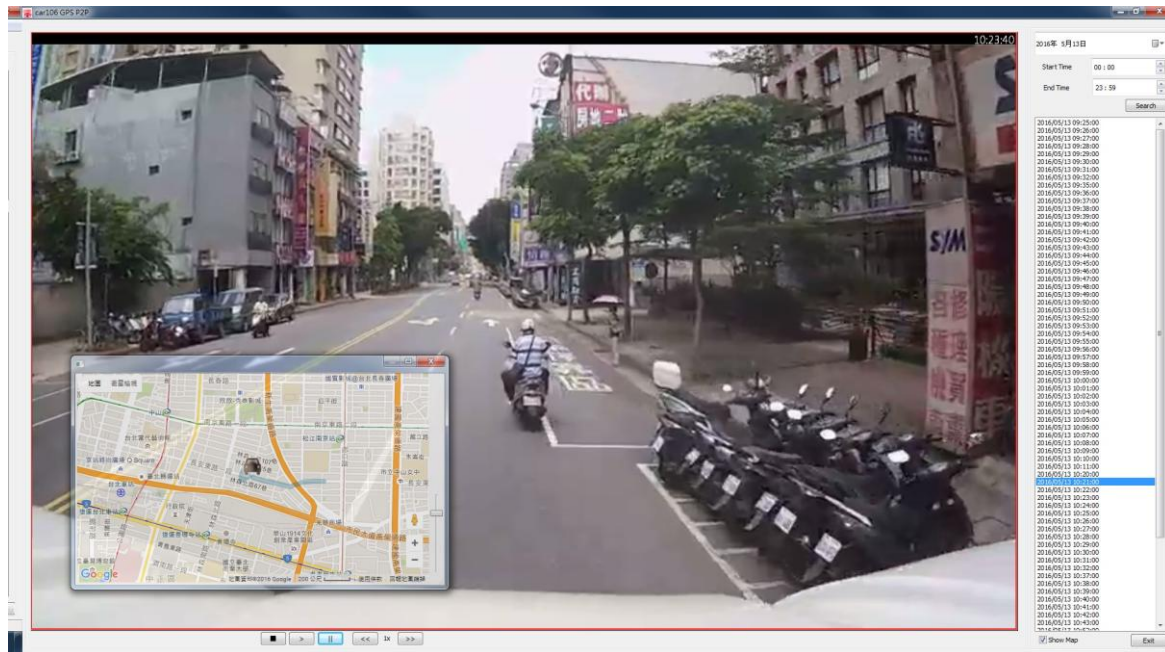
eMap Center

Google maps and Baidu maps are supported for fleet management. After finishing the setup of P2P connection for the NVR from Navigator Enterprise, use Navigator Control Center server to add and to manage the Navigator Enterprise to establish the connection. eMap Center will automatically show the video and the GPS position on eMap Center.



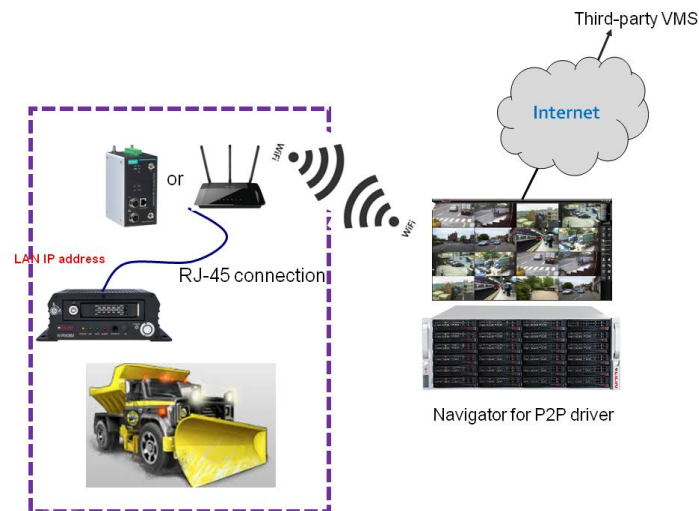
Playback from eMap Center

Click on Playback button in eMap Center. You will see the video and the GPS position for the vehicle.



WiFi Video Sync System Architecture

If you wish for the video to be transmitted from the NVR of a vehicle to Navigator Enterprise, you can use high speed WiFi connection. When a vehicle with a NVR approaches the base station within the WiFi range, the video of the NVR can sync to Navigator Enterprise.



For example, set the NVR to IP address of 192.168.1.90. Connect the NVR to a WiFi router. In Navigator Enterprise, set the video sync feature to 192.168.1.90 as the NVR. Once the NVR is in the WiFi range, the video of the NVR is sync back to Navigator Enterprise at hourly basis.

Network Setting

Network Setting

Connection method: ☒ Static ☐ DHCP ☐ PPPoE

IP Address: 192.168.1.90 [Test]

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1

Primary DNS: 8.8.8.8

Secondary DNS: 8.8.4.4

PPPoE Account: user

PPPoE Password: ****

Video Port: 3100

HTTP Port: 80

FTP Port: 21

P2P: ☒

P2P UID: 80018@lilin.lptnet.net

P2P Pass: ****

P2P Status: Registration done! 80018@lilin

PPPoE IP: 192.168.42.84

Hotspot IP: 192.168.42.84

Submit

Navigator Archive Manager 64 Bits

Archive | Archive Log | Sync

Sync Destination Setup

NAV Channel: #001 Cam 001 [Status]

Sync Source Setup

Server type: NVR/VCR

Server IP/DNS: 192.168.1.90 [X]

Server Port: 80

Username: admin

Password: ****

Source Channel: Cam 001 [Refresh]

Apply

Sync Mechanism

☒ Overwritten ☐ No Overwritten

☒ Smart Overwritten ☐ No Smart Overwritten

2 Seconds

Sync Time

☐ Start Older Recording Time

☒ User Defined Time

Today 00:00 09/23/2015

Apply All

Schedule

☒ Real-Time ☐ Scheduled

Sunday

00:00

Apply All

Apply

Recordings

	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sunday																								
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								

Apply

Apply a Week

Apply All Channels

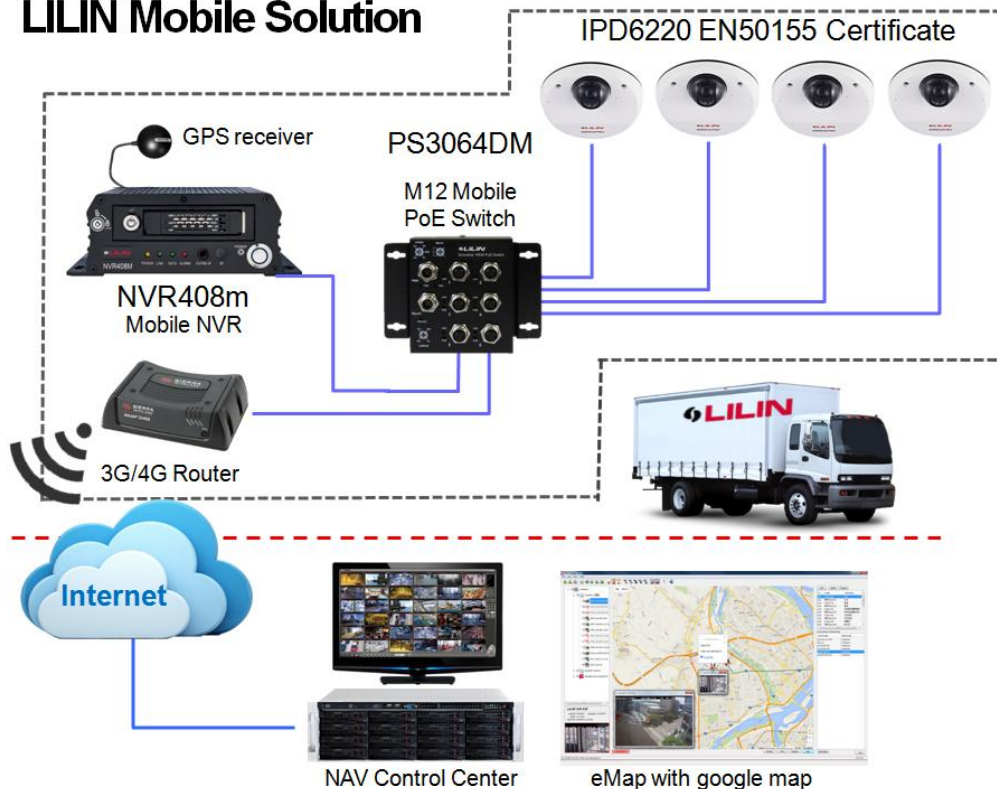
Start Stop Copy MPlayback Exit

The System

The P2P connection is done via 3G/4G by the NVR's P2P account. The IP address of 3G/4G connection is handled by P2P driver from the NVR to Navigator Enterprise.

The WiFi connection is for the video sync operation in between the NVR and Navigator Enterprise. The IP address for WiFi connection has to be the same IP range as the WiFi AP of Navigator Enterprise.

LILIN Mobile Solution



Appendix

Use iOS or Android JalaCam App to verify the P2P connection



1. Click Add button for adding a camera.
2. Enter P2P UID, username, and password. Click OK button to add this camera.
3. Click List button and select the camera to view.

Known issues:

1. Support only SD resolution for video.
2. There are only 4 cameras for streaming video.