

# Chicago Daily Law Bulletin®

Volume 161, No. 176

## Convert your old smartphone into an office webcam for free

If you are self-employed and could use an extra pair of eyes at the office, consider making your own free security camera. All you need is an old smartphone with a camera, a Wi-Fi connection and a modest investment of time.

Although this do-it-yourself project does not supplant a full-fledged security system, there are plenty of uses for a basic webcam. You may be in court or at a deposition, but need to confirm an important delivery back at the office. In a shared-space arrangement, you can remain at your desk and monitor the lobby for the arrival of clients or business associates. Perhaps you want some extra security by keeping tabs on the firm from home. The list goes on.

Here is a summary of steps I followed to convert an old Android smartphone to a handy office cam. Retired iPhones can be used as well with different software. For further reference, links to more detailed tutorials are included below.

### Install app, position phone

Make sure your old Android device has a camera, is Wi-Fi enabled and is logged in to your firm's wireless network. No phone or data subscription is needed.

Using your device, navigate to the Google Play app store. Search for the IP Webcam app, developed by Pavel Khlebovich and install the free version.

Open the IP Webcam program you just downloaded. Leave all the configuration options in place for now — later you can set a password, adjust the power management, resolution, orientation, etc. — and click the “start server” option at the bottom of the menu.

If the program is working, the bottom of your phone screen will display an IP address and port — something like 192.168.1.\_\_\_\_:8080. Write down the complete address.

Position the phone's camera for your desired viewing area by placing the device upright on a stand or leaning it against another object. Inexpensive stands can be purchased, but there are plenty of

free solutions on the Internet. Choose a location with a nearby power outlet to keep the phone charged.

### View video from your desk

You are ready to access the camera from your desk. Open a Web browser on your computer — make sure you are on the same network as the phone's Wi-Fi — and enter the IP address you recorded in the browser's Web address field.

The IP Webcam control page will open. Choose your video and audio options — I used “browser” for video and “flash” for audio — and your office cam should be up and running. The control page contains many adjustment options, including zoom, stream quality and night vision. Select the “overlay” button to include a date and time stamp on the video.

### Improved recording with VLC Media Player

Video can be recorded through the IP Webcam interface, but the length is limited to a one-hour loop and the video file is saved on the phone's memory card, which can be limited and difficult to access. Plus, the recorded video contains an annoying advertisement to purchase the program's “pro version.”

So, instead of using IP Webcam's native interface, I used VLC Media Player, which allowed for unlimited recording to my computer. And no advertisements.

*I enjoyed repurposing my old phone from a useless paperweight to a free and productive security device. Hopefully, you will too.*

VLC is a free media player that can be downloaded at videolan.org. Install VLC on your computer, open the program and on the upper menu select “media” and then choose “open network stream.”

When you select “open network stream,” VLC's “network URL” box will open. Enter your phone's

### SOLE SPEAK



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IP address with “/video” on the end, as follows:

`http://192.168.1.____:8080/video`. After making sure the IP Webcam program is still running on your phone, click “play” at the bottom of the VLC network URL box. You can now monitor the phone's video feed from your office computer through VLC's viewer.

To record the video to your computer using VLC, click “view” on the top menu and select “advanced tools.” This exposes the red “record” button at the bottom-left corner of the viewer. Click the “record” button to begin recording the video and click again to stop.

By default, VLC's recorded

videos are downloaded to your PC's “Videos” folder. The location can be changed in VLC by selecting Tools-Preferences-Input/Codecs on the top menu and changing the “record directory” to your desired folder.

### Remote access

Now that you can view and record video in the office, the final

task is to allow for remote viewing through the Internet.

Remote access generally is accomplished through port forwarding, a process that opens a port or channel in your office network to the outside world. Because the process is a bit complicated and involves potential security concerns, I decided to use Google's free Chrome Remote Desktop service as an alternative. For those interested in port forwarding, a tutorial link is below.

Using Chrome Remote Desktop, you can safely access and operate your office computer through the Internet from anywhere, even from another smartphone. Obtain a free Google account, install the Chrome Web browser on your office computer; enter “Chrome Remote Desktop” in the search bar and install the program.

Set up the program by giving yourself password access to your office computer from your other designated devices — laptop, home computer, smartphone, etc. Once the Chrome Remote Desktop program is installed, you can access your firm's desktop and operate the office cam from any location.

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### More online

See the following tutorials for more detailed instructions.

- Installing IP Webcam on your Android phone: [techrepublic.com/article/recycle-that-old-android-device-into-a-web-based-security-camera/](http://techrepublic.com/article/recycle-that-old-android-device-into-a-web-based-security-camera/).

- Motion detection recording with free iSpy program: [youtube.com/watch?v=\\_TICTR9x3q0](http://youtube.com/watch?v=_TICTR9x3q0).

- VLC Media Player network stream settings: [grok.lsu.edu/Article.aspx?articleId=5208](http://grok.lsu.edu/Article.aspx?articleId=5208).

- Port forwarding with IP Webcam: [youtube.com/watch?v=iwjJ0esRZKY](http://youtube.com/watch?v=iwjJ0esRZKY).

- iPhone office cam: [manything.com/tutorial-videos.html](http://manything.com/tutorial-videos.html) (“manything” program is free for one camera with limited recording time).