

## LIVE INVESTIGATION "How To"

Posted by crystalcross - 08 Nov 2011 22:45

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There are several factors that play into performing a Live investigation. First and foremost you must pool your equipment and see which way it makes sense for you to go. Probably the #1 most important and critical factor to conducting any form of Live streaming investigation is some access to the internet. This usually involves some source of WiFi or Wireless Data. Wireless data could include 3G, 4G or Edge technology phones.

Now the question arises as to interference with the investigation. The short answer is that WiFi generally will have minimal impact to any equipment. WiFi uses 10-20mW power and is across a spread spectrum of frequencies. Will it impact some sensitive EMF meters, yes. But so will some of the standard electronics you carry such as digital cameras, computers, voice recorders, etc. Basically any digital device emits some form of EMF at low levels and high frequencies.

The ideal situation would be to have a high bandwidth, lower power source of WiFi in the area of the investigation. Of course this is not always a realistic expectation or even a common occurrence. As most of you know, the average investigation will be in a location which is remote and not anywhere near any sources of WiFi. In some cases not even in an area with Cell phone signal capabilities.

Failing the Highspeed WiFi access, the next best thing is Wireless cell phone data access. This can be used in one of a multitude of ways. First you can use it directly from the phone with an app for streaming video and audio. Although this works, its far from ideal. For one the usage of the cell phone at the point of investigation inherently will induce high EMF fields and interfere with some of the sensitive equipment. Secondly, most cell phones are not made for lower light conditions, and so will simply yield a dark picture with someone talking or whispering. Not exactly gripping edge of your seat material.

In situations where all you have is a Cell phone and no other means to broadcast, I would recommend setting up a staging area with somewhat higher light conditions. Perhaps a flashlight and perhaps even a Tri-pod to set (or tape) the cell phone to. And I would recommend picking one of your investigators (usually the tech person) to be the host of the live investigation from that central location.

This person could in turn narrate the action, play EVP's as investigators bring the equipment back and report, and also display photos and other findings right as they're happening. Also the central agent could keep in contact with the various investigators. This can serve multiple purposes aside from simply hosting the Live investigation feed. The central host can also in turn read the member questions and answer them as the investigation progresses. This is likely the cheapest and easiest way to conduct a

live investigation on a limited budget and with limited means when no WiFi is present. The down side is that it does require some more man-power and coordination. It requires at least one extra person.

The second option in the absense of WiFi is to create your own WiFi source from a Wireless Data source. This is called creating or using a "Hotspot". It involves either a cellphone provider supplied "Hotspot" (which usually comes at a charge of about \$50/month plus equipment cost) or using a "Hotspot" enabled cell phone. These include iPhone and Android phones but also incur a cell phone provider surcharge for using them.

There is another option though. Both iPhone (through jailbreaking) and Android (through rooting) provide the ability to install an application which can turn your phone into a Wireless access point or "Hotspot" without incurring any additional provider fees. Now on an iPhone jailbreaking is not recommended as its not an accepted practice and can lead to issues with using the phone. So we will not really down that road, just know that the option is there and you can probably find out more by simply Googling "iPhone hotspot free" in the search engine.

On an Android phone though you can "root" your phone which opens up lots of extra abilities and removes any limitations to software. There is an excellent article about how to root your Android 2.2 or later phone [here](#). This article provides both videos and explanation on the Pros and Cons as well as a brief how-to. Be aware that in many cases "rooting" the phone will void any warranty or support contract. But often the benefits outweigh the costs. This is a decision you must make for yourself. If you do root your Android phone, you can then download the latest version of the free hotspot software from [here](#).

Once you have a wireless hotspot. You can then locate this hotspot in a central area away from the investigation itself. This will ensure that it does not interfere with the investigation, but will in turn allow your lower powered WiFi equipment or laptops to work and will allow you to stream video from your location using the standard GnH Live Investigation streaming web page or app.

In either instance I would still recommend having a centralized "Host" to send a feed from the central Tech location. This will allow him to narrate, and keep everything focused and on track using walkie-talkies. Also it helps keep interference to a minimum. Its recommended to have this location at least 40 or more feet away from any investigations that are taking place.

Finally, if there is no other means of streaming live video data then there is a fall back. Its not available yet but we will be creating a phone number that you can call do a voice based live cash from an old fashioned style cell phone. But again, we don't recommend you do that from the location that you're investigation. Pick a small area away from the current investigation room which can be used for communication and central HQ of the investigation.

We're hoping to work with everyone over the next few months to make it easier to be able to bring your investigations into the fore-front and also enable our members to join you during your adventures. If you have any specific questions feel free to ask and I'll try to answer them as best as I can.

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## **Re: LIVE INVESTIGATION "How To"**

Posted by crystalcross - 09 Nov 2011 17:15

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Congratulations to BHPI Team for being one of the first to request a Camera feed under the new Live Investigation page. Look forward to seeing some great feeds coming from them in the future!

Kudos to our friends!

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## **Re: LIVE INVESTIGATION "How To"**

Posted by crystalcross - 10 Nov 2011 13:23

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### **WAYS TO CAPTURE FROM A DVR**

We've looked into various ways to capture video from a DVR feed in order to send it to a Live Investigation broadcast. One simple way is to take a Video Capture card and attach it to the output of the DVR system. Although I'm sure there are better ways to do it, most DVR systems use proprietary protocols which the manufacturers are very tight-lipped about. We've tried so far to no avail, to get access to these protocols.

In the mean time if you're interesting in streaming a Live feed from your DVR, you can purchase for only \$7, a device which can take the standard video output from the DVR and feed it into the computer.

Amazon sells one of these devices [HERE](#).

Once installed, this device is treated just like a webcam. Instead of feeding from a single camera, it feeds from the output of your DVR.

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## **Re: LIVE INVESTIGATION "How To"**

Posted by BHPI Josh - 10 Nov 2011 14:42

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First off, we're thrilled to have this opportunity and we may be having an investigation for live feeds coming up soon. I will be sure to keep everyone posted!

Next, I'm going to look into that USB/RCA device for our DVR. We have an evidence review meeting tonight for a previous investigation and I will bring this all up with the group.

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## **Re: LIVE INVESTIGATION "How To"**

Posted by crystalcross - 10 Nov 2011 15:51

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Thanks! I know there are probably better ways to pull the information off the DVR but so far I've run into barriers from most of the DVR manufacturers. One of the problems is that the various DVR makers (Q-See, AIMTech, Samsung, Pelco, etc) actually do not create the microcode firmware which resides on the system. They use a SDK (Software Development Kit) for existing packages which are available. So they do not have first hand knowledge of the packet structures for the streams which come from those devices. Second even if they did, they would not be licensed to give that information out. So that creates a bit of a void for information when trying to capture that and re-purpose the video streams.

The advantage of the USB device is you can either stream a single camera, or 4-in-1 or 16-in-1 video panel depending on how you have the DVR's output set.

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## **Re: LIVE INVESTIGATION "How To"**

Posted by BHPI Josh - 10 Nov 2011 16:06

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Yeah, when I heard about the live investigation feed, I was super excited! Didn't know how it would all work lol. Either way, we are happy to have the opportunity. I'm hoping next weekend(19th), we can utilize this. More to come!

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