Researchers describe how to cause older Apple computers to video record without turning on LED light
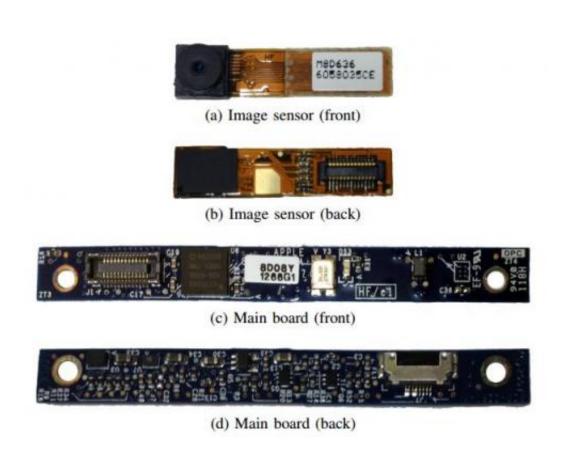
December 19 2013, by Bob Yirka

(a) Image sensor (front)

(b) Image sensor (back)

(c) Main board (front)

(d) Main board (back)

The iSight from a 2008 MacBook that was studied.

(Phys.org) —Two researchers at Johns Hopkins University have posted a research paper outlining a way to remotely control a computer webcam (on MacBook and iMac computers) without causing the in-use light to go

on. In their paper, Matthew Brocker and Stephen Checkoway also note that they have learned that the FBI has known how to accomplish the same feat for several years.

Relying on an LED to glow to let people know that their computer camera is operating has been a standard feature on computers from the first days of webcams—people want to know if they are recording or being recorded. Unfortunately, so too have Remote Administration Tools (RATs)—software installed on computers that allows someone to remotely control the computer or its accessories across the Internet.

More recently, the question of whether someone could remotely control a video camera without causing the LED to glow came to the fore as a high school student (and Miss Teen USA) became the victim of an extortion scam. A fellow student had managed to install a RAT on her computer—one that might have allowed for video capture without turning on the LED—and then sent an email threatening to post nude pictures of her on the Internet. The culprit was caught, but the question of whether the RAT truly did disable the LED light (as opposed to the victim simply not noticing when it came on), remained. Now, the researchers at Johns Hopkins show that it is indeed possible to do such a thing, and it's not nearly as hard as one would think.

The computers described in the paper are from Apple (circa 2008 or older) a company which apparently went to great lengths to make sure that people couldn't invisibly hijack other's webcams, by hardwiring the LED and camera together. Unfortunately, both are still controllable via programming—that's what the researchers found. More specifically, they discovered they could come between the camera and the LED, causing the line running to the LED to remain high, regardless of what the camera was doing, in effect, disabling it.

For many, news of such a feat won't come as much of a shock—most

likely assume their computer, phone or tablet can be hijacked if someone else with the right skills wants to make it happen badly enough—and do as others have suggested, namely tape over the camera when not using it.

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