

A Field Guide to Secure Wi-Fi

Observations from Your Laptop!





Hi! My name is Mac – short for MacBook Pro. My

always a little uneasy about the security concerns that come with travel...



Man-in-the-Middle Attack happens when my owner opens me up during his flight to London.

Our first encounter with a potential Wi-Fi security vulnerability

He connects to in-flight Wi-Fi, which, by the way, is no different from the public Wi-Fi available at your local coffee shop or mall... Yep, it's a wide open network.

Did you know that a Wi-Fi attack on an open network can take less than 2 seconds? It's SUPER easy for hackers to use a manin-the-middle (MitM) attack to eavesdrop on your data as it travels from point A (your laptop for example) to point B (a website.)

If you must use a public Wi-Fi hotspot, make sure you're at least using a VPN connection!



Evil Twin Access Point

When you connect to an evil twin access point that



Access Points

The most common misconfiguration is leaving access point configurations set to factory defaults, like usernames, passwords, and even SSID (service set identifier). According to

misconfigured access points, and that a wireless intrusion

We've made it to Barcelona, Spain. My owner is meeting with a

client to talk about Wi-Fi security, ensure they have no

prevention system (WIPS) has been enabled.

Gartner, the majority of wireless LAN security breaches are caused by poorly configured APs. Overall, their wireless setup looks good, but they are missing one critical aspect - their WIPS is not yet configured. WIPS is

important to the prevention of wireless threats and will detect any misconfigured APs!

business owner about a concern regarding Rogue Access



Points.

Opa! Here we are in Athens, Greece, ready for our next meeting

with a local secondary school) and educating teachers about the

importance of blocking inappropriate and illegal content usage.

smartphones and 68% of parents are concerned about the lack of



In many schools, Wi-Fi security is an afterthought and very few think about **URL content filtering** for adult content and other inappropriate websites.

According to Nielsen, 45% of children ages 10-12 have

control over the content their children see online.

from data theft, password stealing, known malware-compromised websites, and many other harmful attacks.

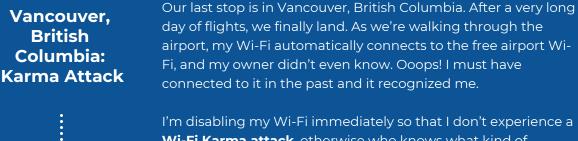
Secure Wi-Fi solution products not only block inappropriate and illegal content, they can also protect students, faculty, and staff





Sydney,

AP MAC address spoofing is the Wi-Fi vulnerability we're



Fi, and my owner didn't even know. Ooops! I must have connected to it in the past and it recognized me. I'm disabling my Wi-Fi immediately so that I don't experience a Wi-Fi Karma attack, otherwise who knows what kind of stranger danger I'll get into having my Wi-Fi automatically

connect to network names from my past.

features that store wireless network names and passwords so my owner doesn't have to think about them and I always probe out to the world looking to see if these Wi-Fi networks from my past are nearby. A person running a Karma attack tool can take advantage of

my smarts by listening to what Wi-Fi network I'm looking and offering it to me, which gets me connected to their

This type of an attack takes advantage of my convenient Wi-Fi

malicious access point and now my poor owner's data is easily stolen in thin air. The solution? Once again, it's WIPS – built to cut out Karma attackers as they attempt to gain control.

