



# Reading the Bits

A Rapid Survey of Innovations in Protocol Analysis

# A Rapid Survey of Innovations in Protocol Analysis

# part 3 of the



# What's in it for me?

QUESTIONS?

Published on InfoWorld (<http://www.infoworld.com>)


Home > News > Business > Civil lawsuits > Lawsuits over Google Wi-Fi sniffing pile on > Lawsuits over Google Wi-Fi sniffing pile on

## Lawsuits over Google Wi-Fi sniffing pile on

By Robert McMillan  
Created: 2010-06-04 04:58AM

Nearly three weeks after admitting that it had sniffed sensitive data from open wireless networks around the world, Google is now facing at least seven U.S. class-action lawsuits over its practice.

The first lawsuit was filed on May 17 on behalf of Niall Van Vain of Oregon and Neil Meritz of Washington. Since then, the lawsuits haven't stopped coming. Google is now facing two more cases in California courts, one in Illinois, two in Washington, D.C., and another in Florida is brought by Internet service provider Galaxy Internet Services.



**[ Lawyers in class-action suit say Google wants to patent technology used to 'snoop' Wi-Fi networks ]** | **[ A new browser add-on aims to foil Google data collection ]** | **[ Government regulators have called on Google to respect users' privacy ]** | **[ Stay ahead of the key tech business news with InfoWorld's Today's Headlines: First Look newsletter ]**

The lawsuits claim that Google violated federal wiretapping laws by sniffing wireless traffic — including the content of emails and Web-surfing activity — with its Google Street View cars. The specially equipped cars drive public streets, taking photographs and recording GPS coordinates to create Street View, a Google map product made up of photographs.

The suits have been brought by users of open wireless networks who believe that Google's Street View cars sniffed data from their networks.

Jeffrey Calman, a Washington, D.C., plaintiff, used an open Wi-Fi connection to do banking, shopping, and send email, among other things. He knows that Street View sniffed his network because he actually saw the distinctive Street View vehicle driving down his street, court filings state.

For the past three years, Google has been collecting basic Wi-Fi networking data — MAC (Media Access Control) addresses of routers, for example — to help improve the accuracy of its location-based products, but the company had previously denied that it was also sniffing so-called "payload" data — the contents of emails and Web pages for example.

1 of 2

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[Home](#) > [News](#) > [Business](#) > [Civil lawsuits](#) > Lawsuits over Google Wi-Fi sniffing pile on > Lawsuits over Google Wi-Fi sniffing pile on

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[ [Lawyers in class-action suit say Google](#)





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## Caveats

- capture and storage non-trivial
- focus purely on interpretation
- not historian
- not complete
- not a timeline

Reading the Bits

## Innovations



## Future Explorations?



# Caveats

- capture and storage non-trivial
- focus purely on interpretation
- not historian
- not complete
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# Innovations

Decryption support

High level parser authoring

Traffic annotation

Summary level

Synchronized 3 window display

Coloring rules

Uniform higher level address treatment

Autodiscovery of names

Open decoder APIs

Stream reassembly

Expert analysis & troubleshooting

Utilization and trend analysis

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Traffic anno

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Stream reassembly

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High level



Utilization and

Decryption support

High level

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High level parser authoring

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High level part

# Traffic annotation

Summary level

# Future Explorations?

Rich non-chartjunk displays  
Correlations between synchronous captures  
Home user accessible tools  
Active probing for diagnostics & performance analysis  
Fractal storage of history  
Protocol sequence validation  
Graphic gestural controls

# Home user accessible tools

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Rich non-chartjunk displays

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# Correlations between synchronous captures

Rich non-chartjunk

Home user a

# Future Explorations?

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