

a 30,000 feet look at wi-fi, the freezing spot

luiz "effffn" eduardo

DEFCON

hello

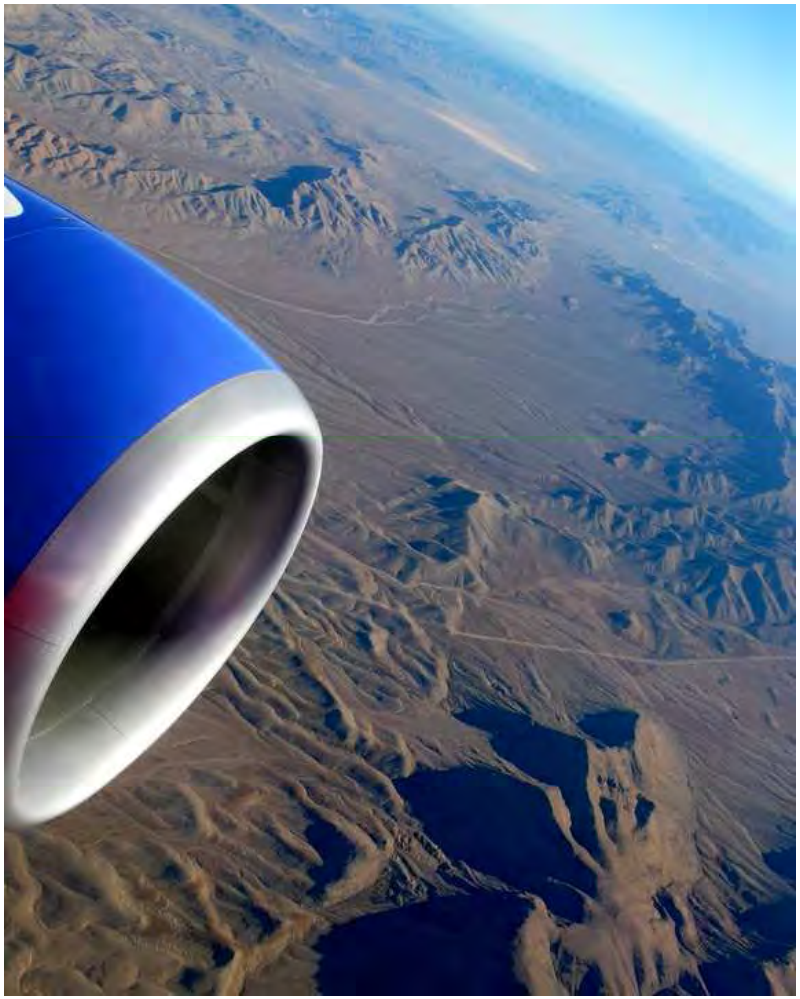


DEFCON

DefCon 17

before we start...

so, why freezing spots?



agenda

- motivation
- the old and the new
- the pieces of the puzzle
- the experiment(s)
- next?

disclaimer




motivation
701

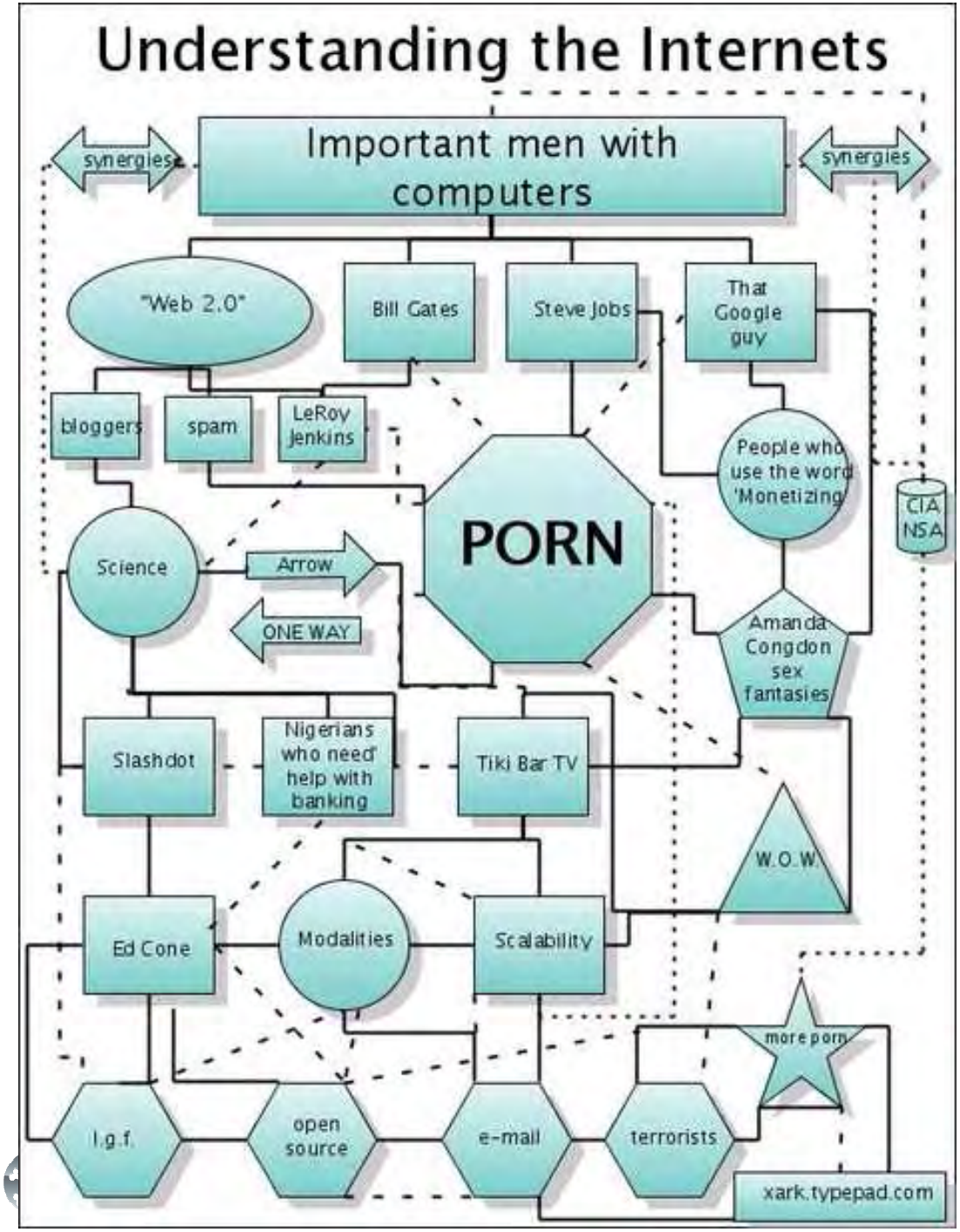
the pieces of the puzzle




Wi Fi
TM




HOOTERS AIR
B-757-200
PASSENGER SAFETY
PROCEDURES


Understanding the Internets
Important men with computers
synergies
synergies
"Web 2.0"
Bill Gates
Steve Jobs
That Google guy
bloggers
spam
LeRoy Jenkins
People who use the word 'Monetizing'
CIA NSA
PORN
Science
Arrow
ONE WAY
Amanda Congdon sex fantasies
Slashdot
Nigerians who need help with banking
Tiki Bar TV
W.O.W.
Ed Cone
Modalities
Scalability
more porn
l.g.f.
open source
e-mail
terrorists
xark.typepad.com

DEFC

the old school way

the "new" stuff


HIGHWAY PATROL
HIGHWAY PATROL
HIGHWAY PATROL
HIGHWAY PATROL

so, I asked...

Hello Luiz,

You have asked a great question!

What has changed that internet is now available during flight is technology. With the ability to use Wi-Fi frequencies instead of cellular frequencies this has been approved! The FAA still has all voice communication prohibited.

If you would like more information on this please feel free to visit the links below:

http://www.aa.com/content/amrcorp/pressReleases/2008_08/20_gogo.jhtml

and

http://www.aircell.mediaroom.com/index.php?s=43&item=78 (the article the approves the FAA is dated April 2, 2008)

Looking forward to working with you!

For more information, please check out our website at www.gogoinflight.com. On this site you can sign up for our newsletter informing you of updates and promotions! Our friendly Gogo Customer Care representatives are available by Live Chat from the gogoinflight.com website or call us in person at 1-877-350-0038.

Happy Travels *-)-™

Gogo Customer Care

You are one of our very best customers and we appreciate your inquiry about WiFi

Internet Connectivity aboard our aircraft. Please know that we carefully tested this product for some time before implementation on our 767-200 aircraft. We would never offer any inflight product our service that would be a safety issue.

We value your long-standing loyalty and support and are eager to continue the relationship we have enjoyed over the years. Please be assured we are all working hard to provide the high quality service you have every right to expect when traveling on American Airlines.

Sincerely,

in Brazil

- seems to still be pending ANATEL's approval
- but should be the same as abroad

- but we'll talk further about that...

so, who's currently providing the service??


jetBlue
the Left Wing Airline
jetBlue




DefCon 17


AlmostFearless.com
AMERICAN AIRLINES CAN BITE ME
~ THE CONTEST ~

Some airlines are making a new attempt to give passengers wireless access to the Internet at 30,000 feet, and 500 mph.

The network operator, Aircell, has switched on the cellular network that links Wi-Fi access points in airborne aircraft with the Internet. In effect, the jet is a Wi-Fi hot spot with a cellular backhaul connection to a ground point of presence. The commercial service, called GoGo, will be available soon on select American Airlines and Virgin Atlantic long-haul domestic flights.

Any 802.11abg device can connect to a Wi-Fi access point aboard the jet. A cellular connection, based on CDMA EVDO technology in the 3MHz band, links the onboard network to one of 92 ground base stations, which connect to a fiber network or point of presence. Aircell says those stations blanket the continental United States (when above 10,000 feet) and deliver an uplink data rate of 3.1Mbps, and a downlink rate of 1.8Mbps. Aircell plans to use compression techniques, which may boost those rates.

Read the latest WhitePaper - Troubleshooting Remote Site Networks - Best Practices

767-200



Google 767-200 Search Advanced Search Preferences

Web Shopping

767 - 200 = 567

More about calculator

Aircraft & Aircraft Carrier Data | Airliners.net
Total **767-200**/200ER orders stood at 239, of which 229 have been delivered. ... Initially Boeing intended to offer two versions, the longer **767-200** and short ...
www.airliners.net/aircraft-data/stats.main?id=103 - 34k - Cached - Similar pages - Note this

Aviation Photos: Boeing **767-200**
Top Views >. Today · One Year or Older · One Month or Older · One Week or Older · 48 Hours or Older · Recently Reuploaded Shots ...
www.airliners.net/search/photo.search?aircraft_genericsearch=Boeing%20767-200&distinct_entry=true - 155k - Cached - Similar pages - Note this
More results from www.airliners.net »

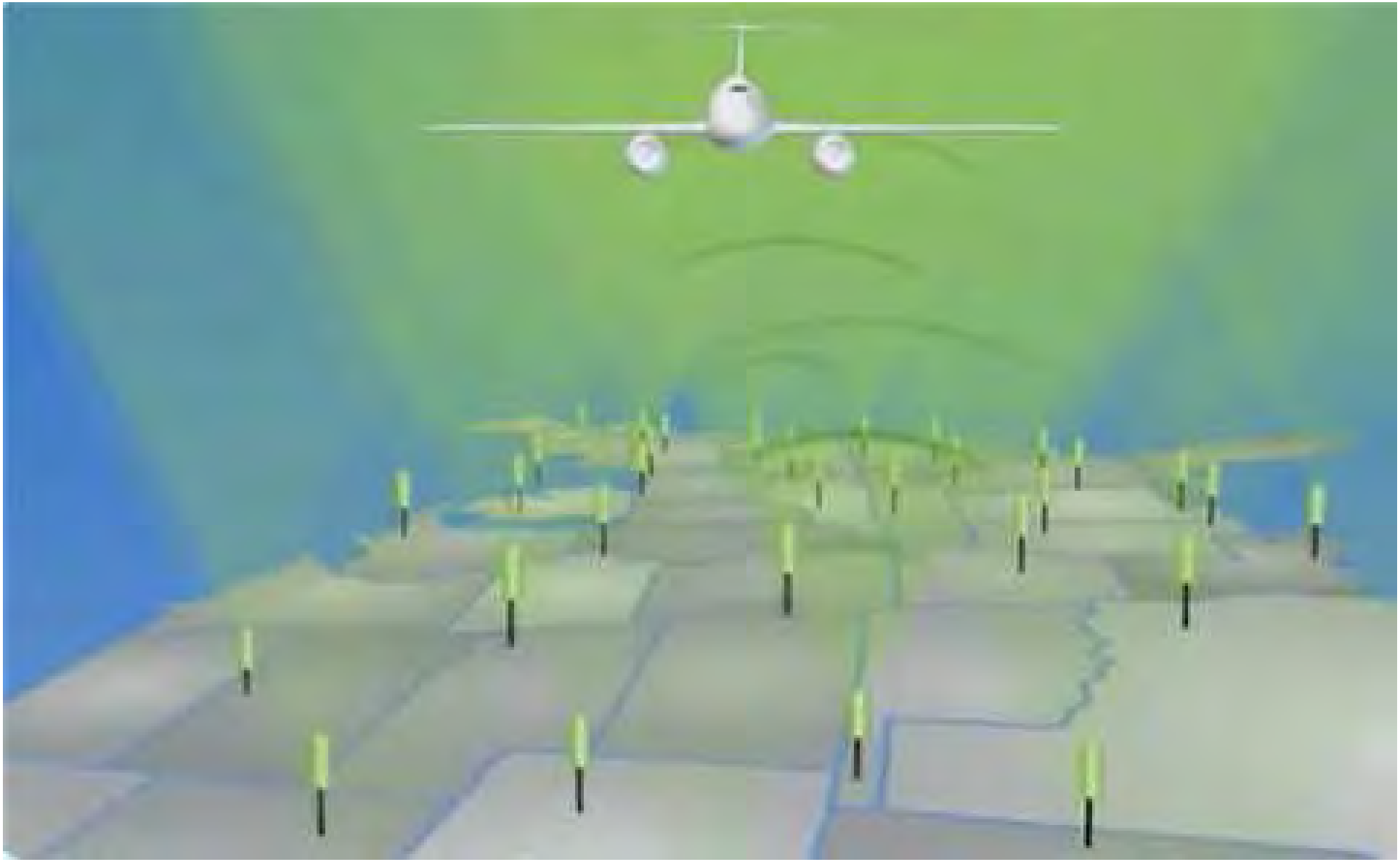
Restrictions. You agree not to resell or attempt to resell any aspect of the Service, whether for profit or otherwise, share your Internet Protocol address ("IP address") or Service connection with anyone, access the Service simultaneously through multiple devices or authorize any other individual or entity to use the Service. You agree that sharing the Service with another party breaches the Agreement and may constitute fraud or theft, for which we reserve all rights and remedies. You have no proprietary or ownership rights to a specific IP address or other address, log-in name, or password that you use in connection with the Service. We will assign you an IP address each time you access the Service, and it may vary. You shall not program any other IP address into your device. The Service is only available on certain equipped airplanes, and unless otherwise stated by Aircell in writing, is not available outside the continental United States . You may use the Service only when the use of electronic devices is permitted by the applicable airline.

No Voice Applications. You will not use any type of voice application (including, without limitation, voice over Internet protocol) without written permission from Aircell.

Hardware Requirements. A compatible laptop, personal digital assistant or handheld device with WI-FI capability is required to enable operation of the Service. You are responsible for any fees or charges associated with the device and the use of the device. You must ensure your device is compatible with the Service. It is your responsibility to make sure the device being used to connect to the Service has a WI-FI radio connection.

Additional Service. Services in addition to the basic Service may be subject to additional terms. Aircell will inform you of any such additional terms when you sign up for such services. Except as otherwise provided by such additional terms, any additional services will be considered part of the Service.

ice Next Previous Highlight all Match case



STARK INDUSTRIES





DEFCON

DefCon 17


PAULANER

http://www.lufthansa-flynet.com/en/index_800.html

:: Index CWNP Program

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deutsch |

FlyNet® - Lufthansa continues to back Internet on board

Boeing: Service secured up to 31st December - future uncertain

Lufthansa deeply regrets Boeings intention to discontinue the Internet broadband service Connexion by Boeing (CBB). This will not have any immediate consequences on Lufthansa FlyNet users. Boeing has given assurances that it will continue the service until the end of the year. Lufthansa FlyNet is enjoying increasing popularity and has proved to be technically very reliable. The level of customer interest is indicated by figures of up to 40 users per flight on North Atlantic and Asian routes. Most recently, around 30,000 Internet users were active on board Lufthansa flights each month. Surveys have shown that 94 percent of the CBB customers plan to use the service again; 92 percent want to recommend it to others.

Up to now, Connexion by Boeing has been the only supplier for broadband Internet use aboard aircraft. Due to the new situation, the market is currently restructuring itself. In the interest of its passengers, Lufthansa hopes to be able to continue to offer FlyNet in future and, therefore, is conducting intensive discussions with Boeing as well as several other potential providers. Meanwhile, as matters stand it cannot be ruled out that there will be a temporary interruption of the service as of January 2007.

For a long time, Lufthansa was not only the first, but also the only CBB partner worldwide. With 62 long-range aircraft equipped with the system, the airline today has the largest Internet-capable fleet. Lufthansa FlyNet started regular operations on 17th May 2004 on board flight LH 452 from Munich to Los Angeles. Between 15th January and 18th April 2003, a precursor system had passed its test with flying colours on the Frankfurt - Washington route



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With fee-based Connexion by Boeing™ service, you can access the Internet, email, your corporate network and live global TV.

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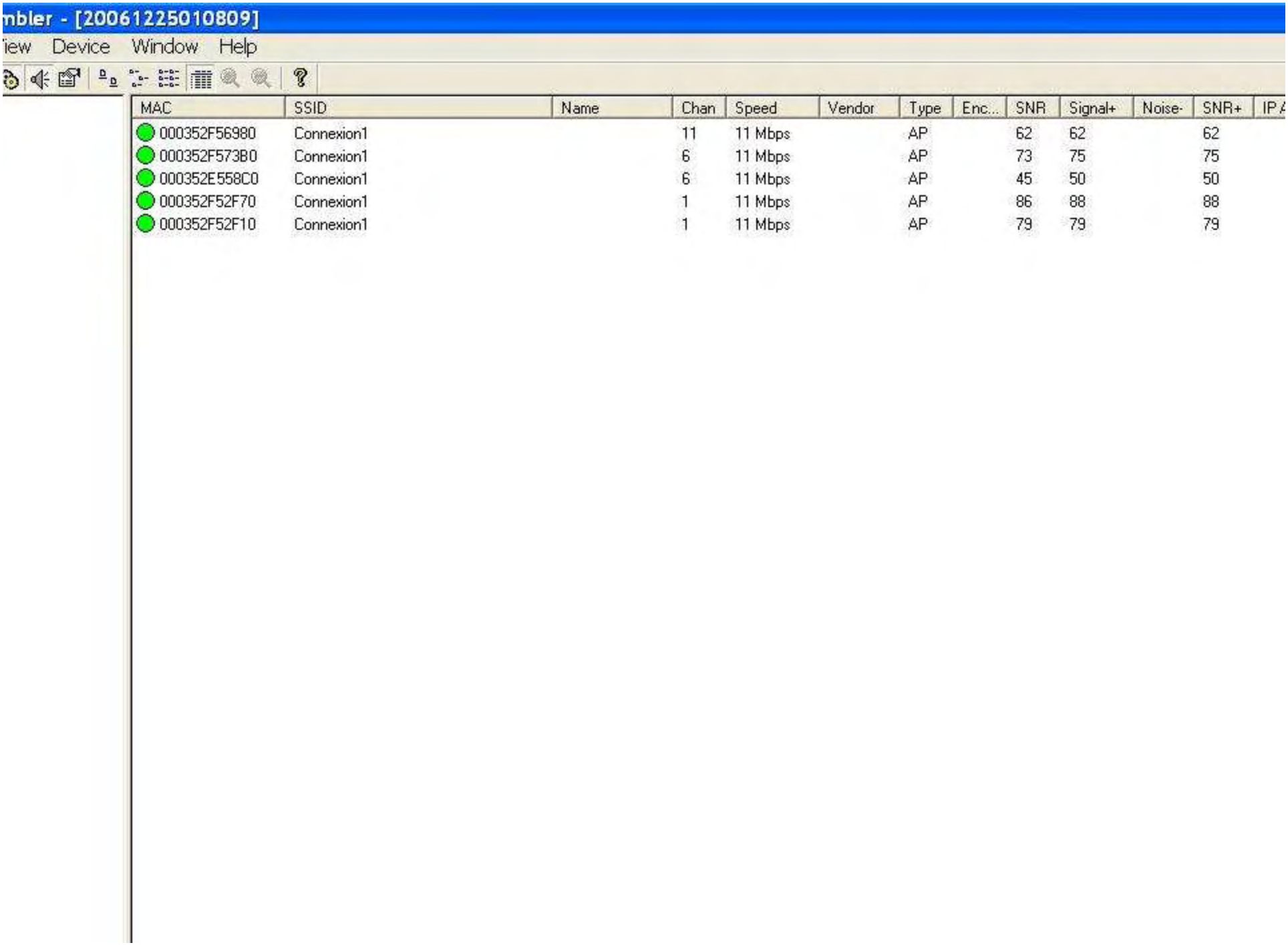
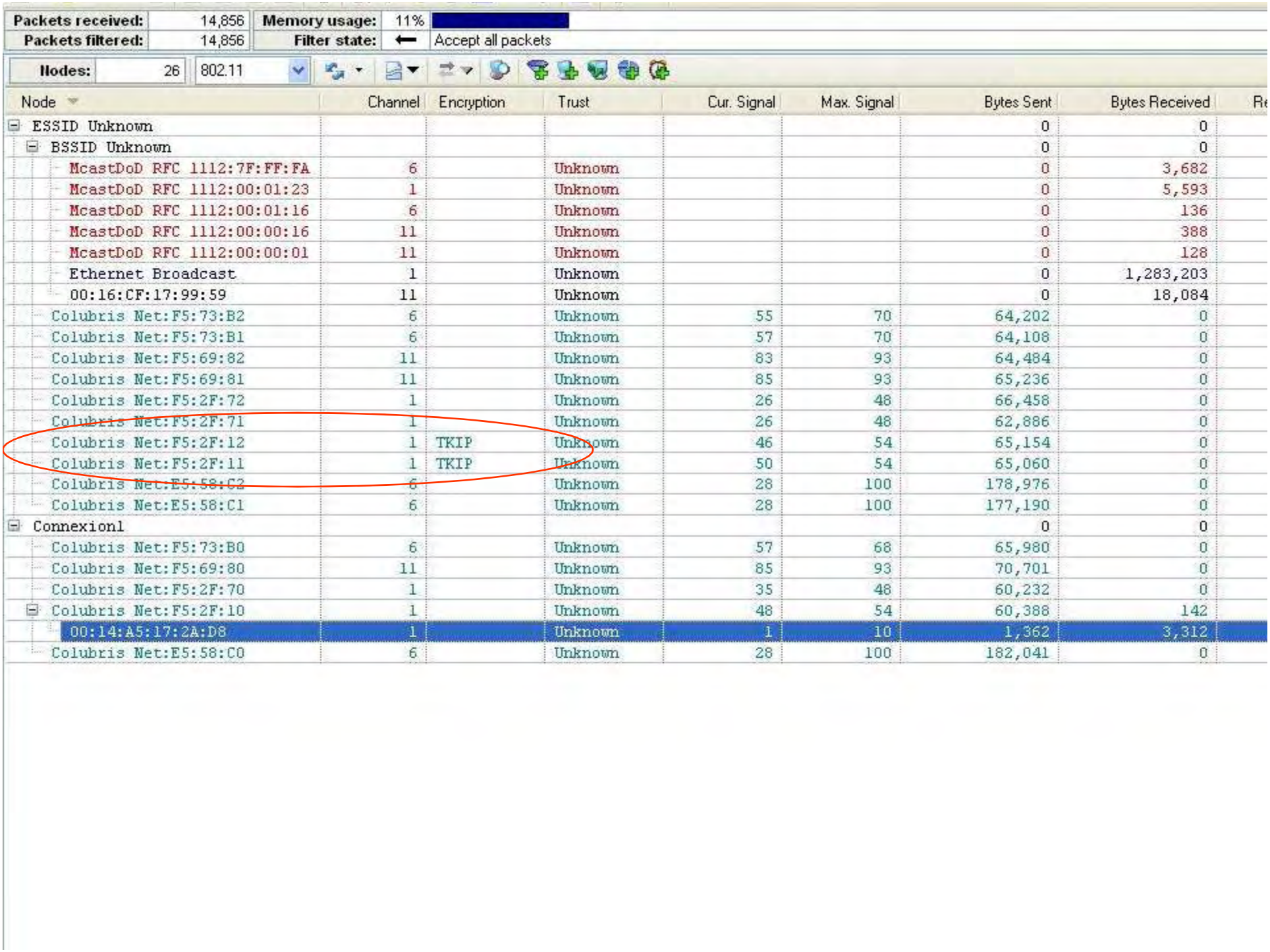
A STAR ALLIANCE MEMB


nbler - [200612250108O9]
iew Device Window Help
MAC SSID Name Chan Speed Vendor Type Enc... SNR Signal+ Noise- SNR+ IP A
000352F56980 Connexion1 11 11 Mbps AP 62 62 62
000352F573B0 Connexion1 6 11 Mbps AP 73 75 75
000352E558C0 Connexion1 6 11 Mbps AP 45 50 50
000352F52F70 Connexion1 1 11 Mbps AP 86 88 88
000352F52F10 Connexion1 1 11 Mbps AP 79 79 79



Packets received:	14,856	Memory usage:	11%	
Packets filtered:	14,856	Filter state:	←	Accept all packets

Nodes: 26 | 802.11

Node	Channel	Encryption	Trust	Cur. Signal	Max. Signal	Bytes Sent	Bytes Received	Re
ESSID Unknown						0	0	
BSSID Unknown						0	0	
McastDoD RFC 1112:7F:FF:FA	6		Unknown			0	3,682	
McastDoD RFC 1112:00:01:23	1		Unknown			0	5,593	
McastDoD RFC 1112:00:01:16	6		Unknown			0	136	
McastDoD RFC 1112:00:00:16	11		Unknown			0	388	
McastDoD RFC 1112:00:00:01	11		Unknown			0	128	
Ethernet Broadcast	1		Unknown			0	1,283,203	
00:16:CF:17:99:59	11		Unknown			0	18,084	
Colubris Net:F5:73:B2	6		Unknown	55	70	64,202	0	
Colubris Net:F5:73:B1	6		Unknown	57	70	64,108	0	
Colubris Net:F5:69:82	11		Unknown	83	93	64,484	0	
Colubris Net:F5:69:81	11		Unknown	85	93	65,236	0	
Colubris Net:F5:2F:72	1		Unknown	26	48	66,458	0	
Colubris Net:F5:2F:71	1		Unknown	26	48	62,886	0	
Colubris Net:F5:2F:12	1	TKIP	Unknown	46	54	65,154	0	
Colubris Net:F5:2F:11	1	TKIP	Unknown	50	54	65,060	0	
Colubris Net:E5:58:C2	6		Unknown	28	100	178,976	0	
Colubris Net:E5:58:C1	6		Unknown	28	100	177,190	0	
Connexion1						0	0	
Colubris Net:F5:73:B0	6		Unknown	57	68	65,980	0	
Colubris Net:F5:69:80	11		Unknown	85	93	70,701	0	
Colubris Net:F5:2F:70	1		Unknown	35	48	60,232	0	
Colubris Net:F5:2F:10	1		Unknown	48	54	60,388	142	
00:14:A5:17:2A:D8	1		Unknown	1	10	1,362	3,312	
Colubris Net:E5:58:C0	6		Unknown	28	100	182,041	0	

broadband help » Speed Test Result - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://www.dslreports.com/speedtests/178216;30320;c56af42441a42cca72aaf1380a4f6889;3.0;www.dslrepo

cwnp.com :: Index CWNP Program

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Ads by Google

Speed Test Result

dslreports.com speed test 2006-12-25 05:31:10 EST:
178 / 30 (Kbps)
(21.7 / 3.7 KB/sec)



Copy/paste this HTML to share this image:

```
<a href="http://speedtest.dslreports.com"><img border=0
src="http://www.dslreports.com/im/20548467/91165.png"></a>
```

MegaPath T1
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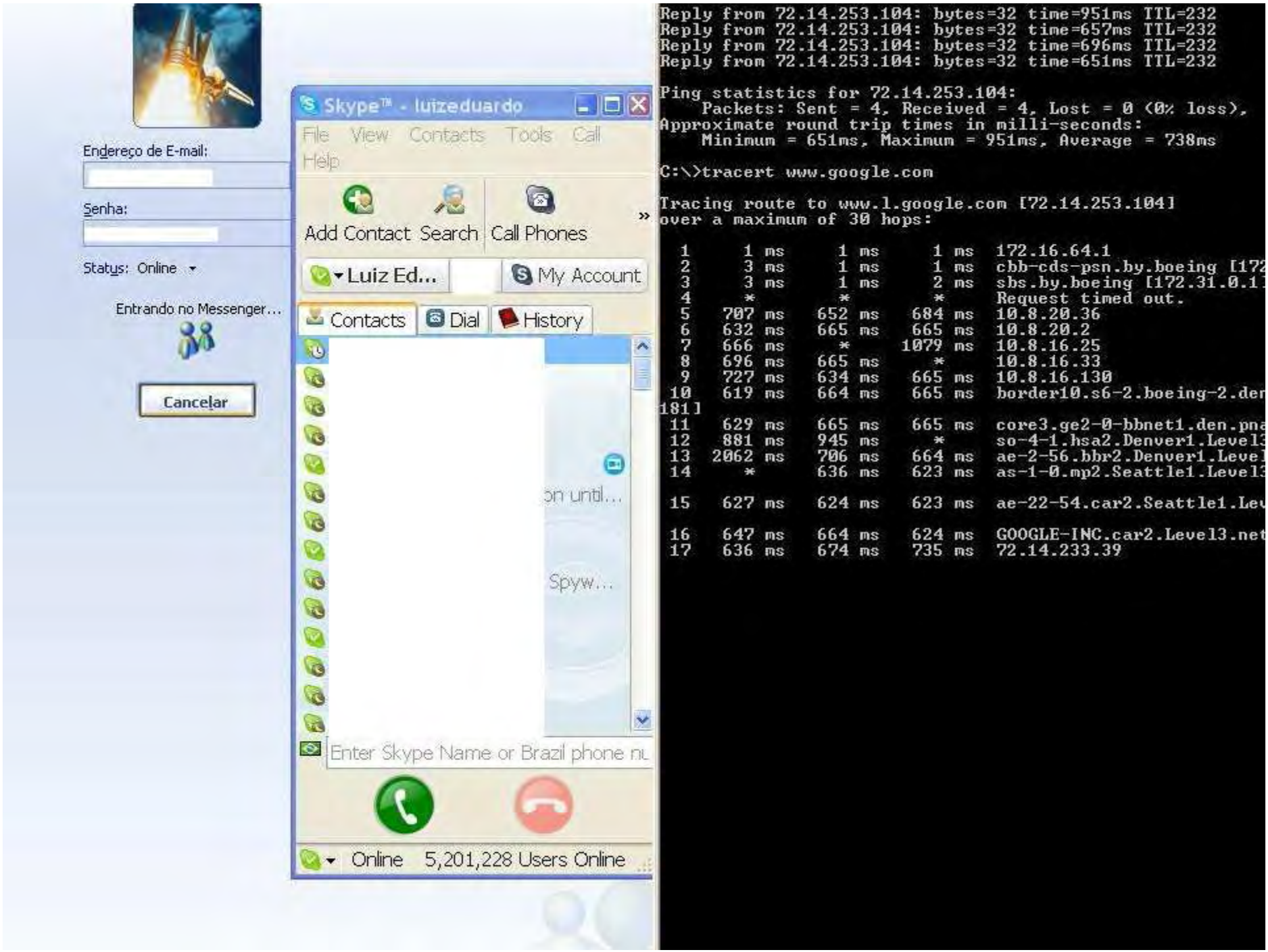
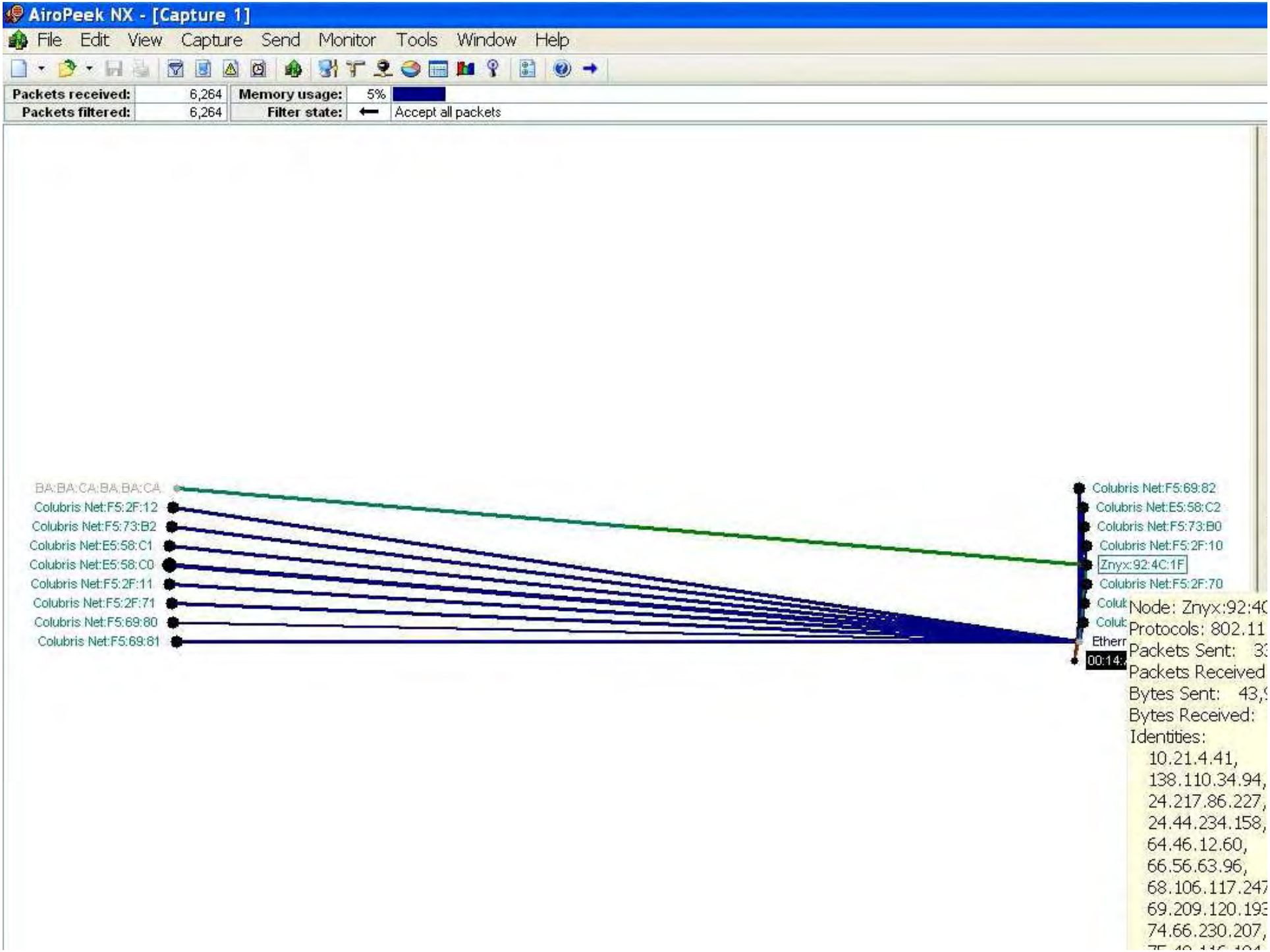
Slow Internet =
Low Productivity
888-663-4642-Tall
to a Real Person

Add Your Result to our 'Fastest Broadband' table

[+] click if you can help us by identifying your ISP, product, and advertised speed

ZIP code:

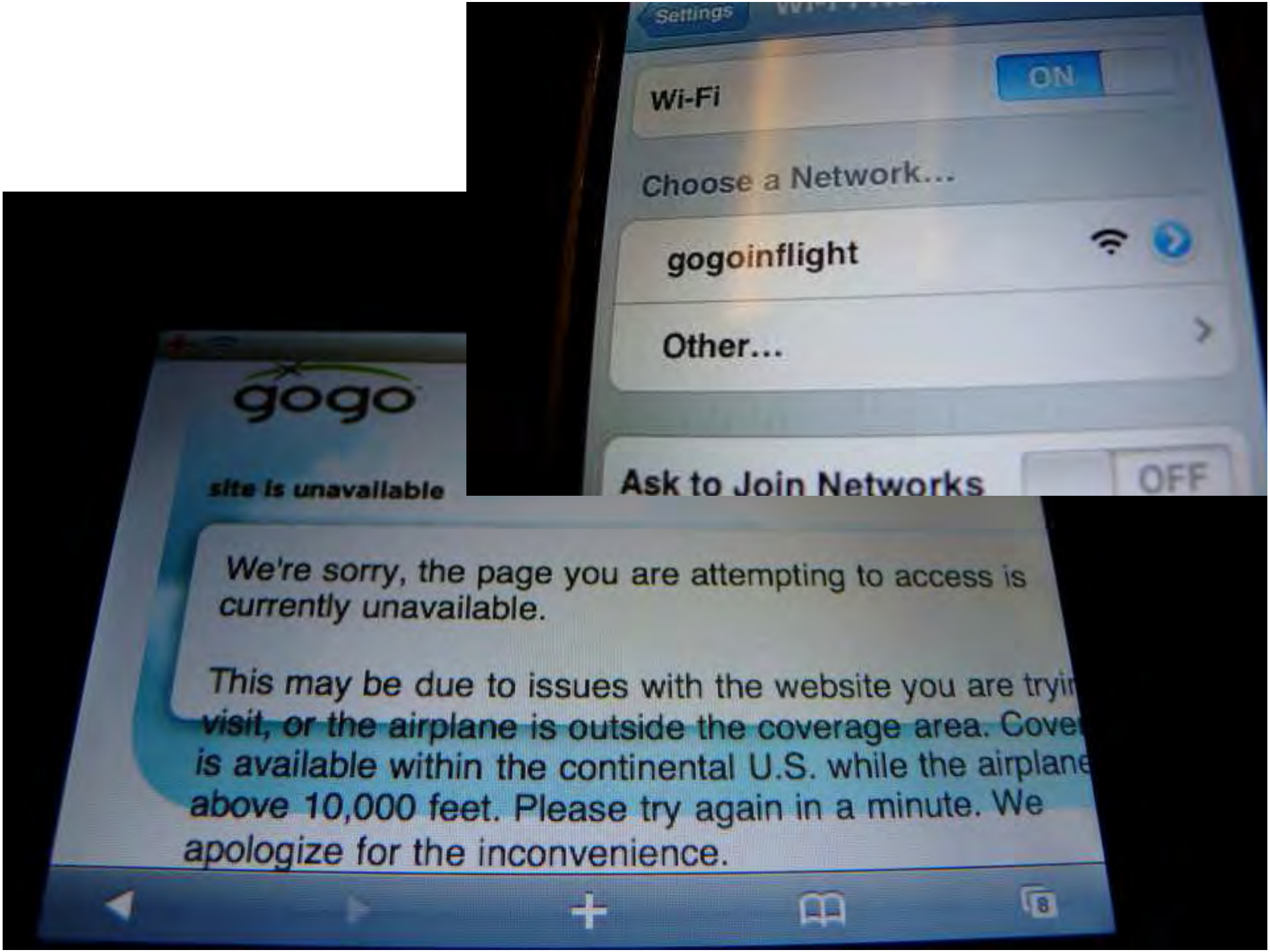

Endereço de E-mail:
Senha:
Status: Online
Entrando no Messenger...
Cancelar
Skype™ - luizeduardo
File View Contacts Tools Call Help
Add Contact Search Call Phones
Luiz Ed...
My Account
Contacts Dial History
Enter Skype Name or Brazil phone nu
Online 5,201,228 Users Online
Reply from 72.14.253.104: bytes=32 time=951ms TTL=232
Reply from 72.14.253.104: bytes=32 time=657ms TTL=232
Reply from 72.14.253.104: bytes=32 time=696ms TTL=232
Reply from 72.14.253.104: bytes=32 time=651ms TTL=232
Ping statistics for 72.14.253.104:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 651ms, Maximum = 951ms, Average = 738ms
C:\>tracert www.google.com
Tracing route to www.l.google.com [72.14.253.104]
over a maximum of 30 hops:
1 1 ms 1 ms 1 ms 172.16.64.1
2 3 ms 1 ms 1 ms cbb-cds-psn.by.boeing [172
3 3 ms 1 ms 2 ms sbs.by.boeing [172.31.0.1]
4 * * * Request timed out.
5 707 ms 652 ms 684 ms 10.8.20.36
6 632 ms 665 ms 665 ms 10.8.20.2
7 666 ms * 1079 ms 10.8.16.25
8 696 ms 665 ms * 10.8.16.33
9 727 ms 634 ms 665 ms 10.8.16.130
10 619 ms 664 ms 665 ms border10.s6-2.boeing-2.den
181]
11 629 ms 665 ms 665 ms core3.ge2-0-bbnet1.den.pna
12 881 ms 945 ms * so-4-1.hsa2.Denver1.Level3
13 2062 ms 706 ms 664 ms ae-2-56.bbr2.Denver1.Level
14 * 636 ms 623 ms as-1-0.mp2.Seattle1.Level3
15 627 ms 624 ms 623 ms ae-22-54.car2.Seattle1.Lev
16 647 ms 664 ms 624 ms GOOGLE-INC.car2.Level3.net
17 636 ms 674 ms 735 ms 72.14.233.39

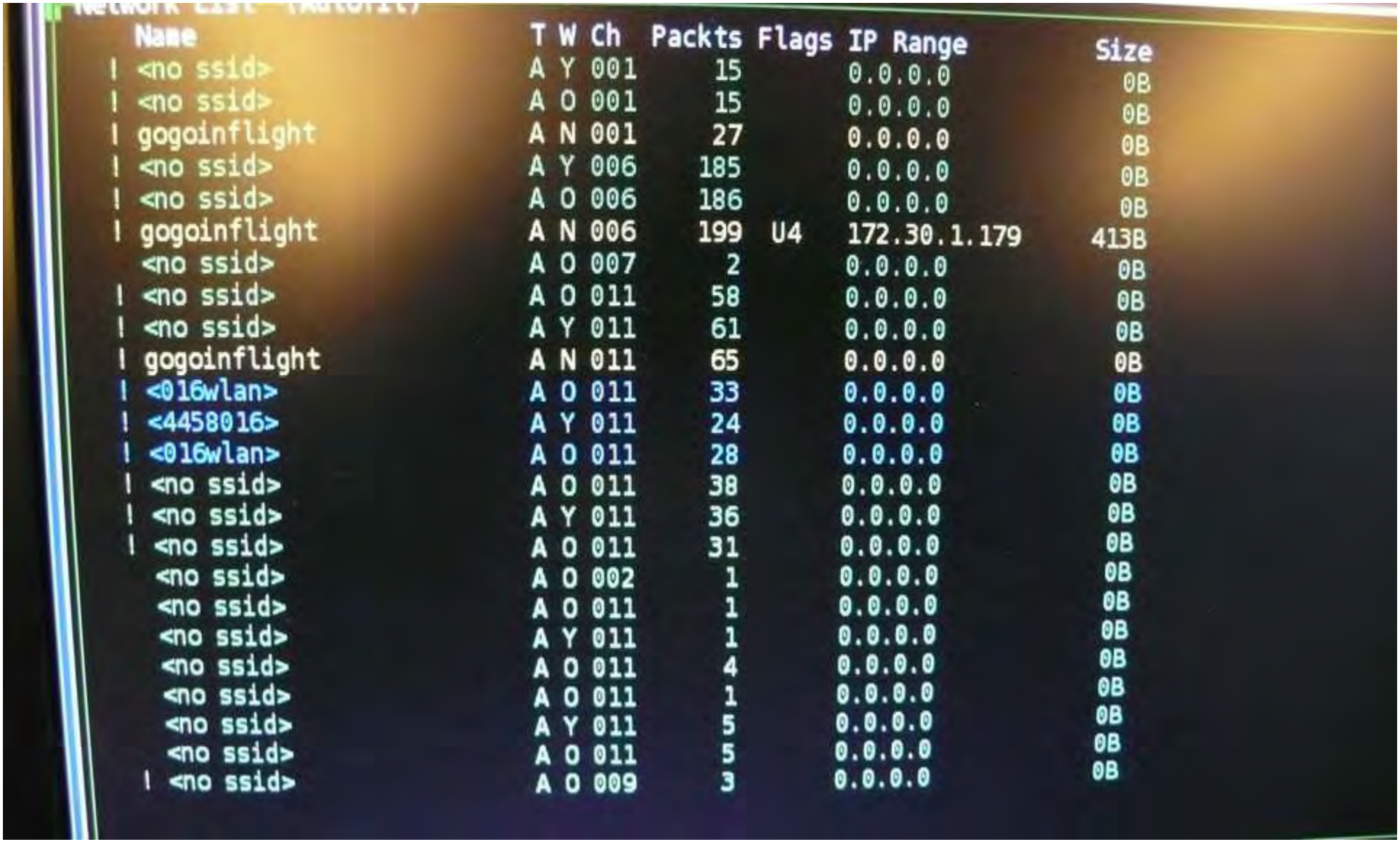

AiroPeek NX - [Capture 1]
File Edit View Capture Send Monitor Tools Window Help
Packets received: 6,264
Packets filtered: 6,264
Memory usage: 5%
Filter state: Accept all packets
BA:BA:CA:BA:BA:CA
Colubris Net:F5:2F:12
Colubris Net:F5:73:B2
Colubris Net:E5:58:C1
Colubris Net:E5:58:C0
Colubris Net:F5:2F:11
Colubris Net:F5:2F:71
Colubris Net:F5:69:80
Colubris Net:F5:69:81
Colubris Net:F5:69:82
Colubris Net:E5:58:C2
Colubris Net:F5:73:B0
Colubris Net:F5:2F:10
Znyx:92:4C:1F
Colubris Net:F5:2F:70
Node: Znyx:92:4
Protocols: 802.11
Packets Sent:
Packets Received
Bytes Sent:
Bytes Received:
Identities:
10.21.4.41,
138.110.34.94,
24.217.86.227,
24.44.234.158,
64.46.12.60,
66.56.63.96,
68.106.117.247
69.209.120.193
74.66.230.207,

so...

- it worked
- good rf coverage
- slow/ latency
- session persistency apps
- expensive (?)


OLIVE GARDEN
TONY MORA
ARGENT
Antioxidants. Disguised in delicious tea form.
NESTEA
ICED TEA
VOTE!
FTER STORM
KFT
JPM
41.17
CHRW
1 5 8 5


Settings
Wi-Fi
ON
Choose a Network...
gogoinflight
Other...
Ask to Join Networks
OFF
gogo
site is unavailable
We're sorry, the page you are attempting to access is currently unavailable.
This may be due to issues with the website you are tryi
visit, or the airplane is outside the coverage area. Cove
is available within the continental U.S. while the airplan
above 10,000 feet. Please try again in a minute. We
apologize for the inconvenience.


Name T W Ch Packts Flags IP Range Size
<no ssid> A Y 001 15 0.0.0.0 0B
<no ssid> A O 001 15 0.0.0.0 0B
gogoinflight A N 001 27 0.0.0.0 0B
<no ssid> A Y 006 185 0.0.0.0 0B
<no ssid> A O 006 186 0.0.0.0 0B
gogoinflight A N 006 199 U4 172.30.1.179 413B
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gogoinflight A N 011 65 0.0.0.0 0B
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<no ssid> A O 011 31 0.0.0.0 0B
<no ssid> A O 002 1 0.0.0.0 0B
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<no ssid> A Y 011 1 0.0.0.0 0B
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<no ssid> A Y 011 5 0.0.0.0 0B
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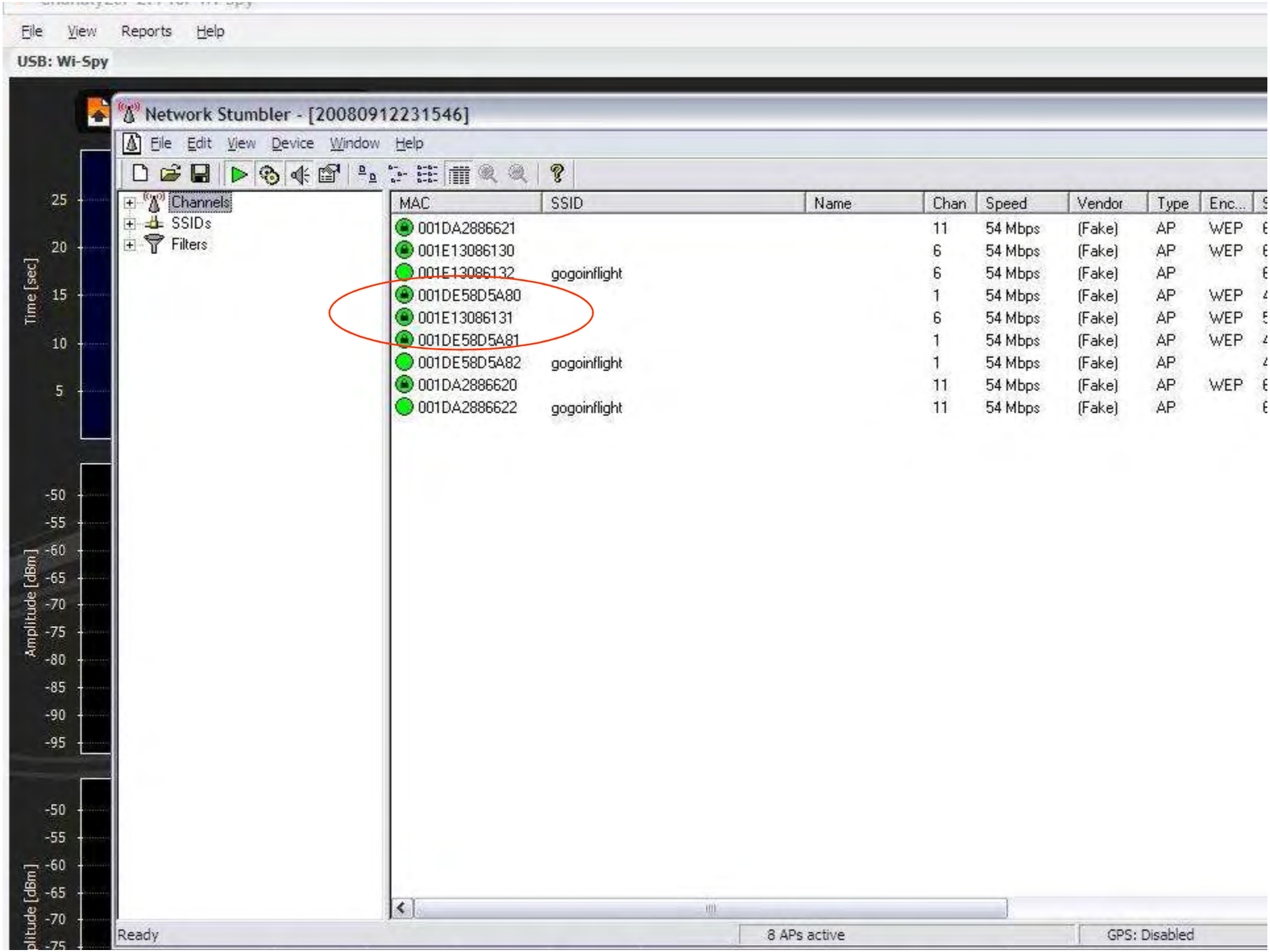
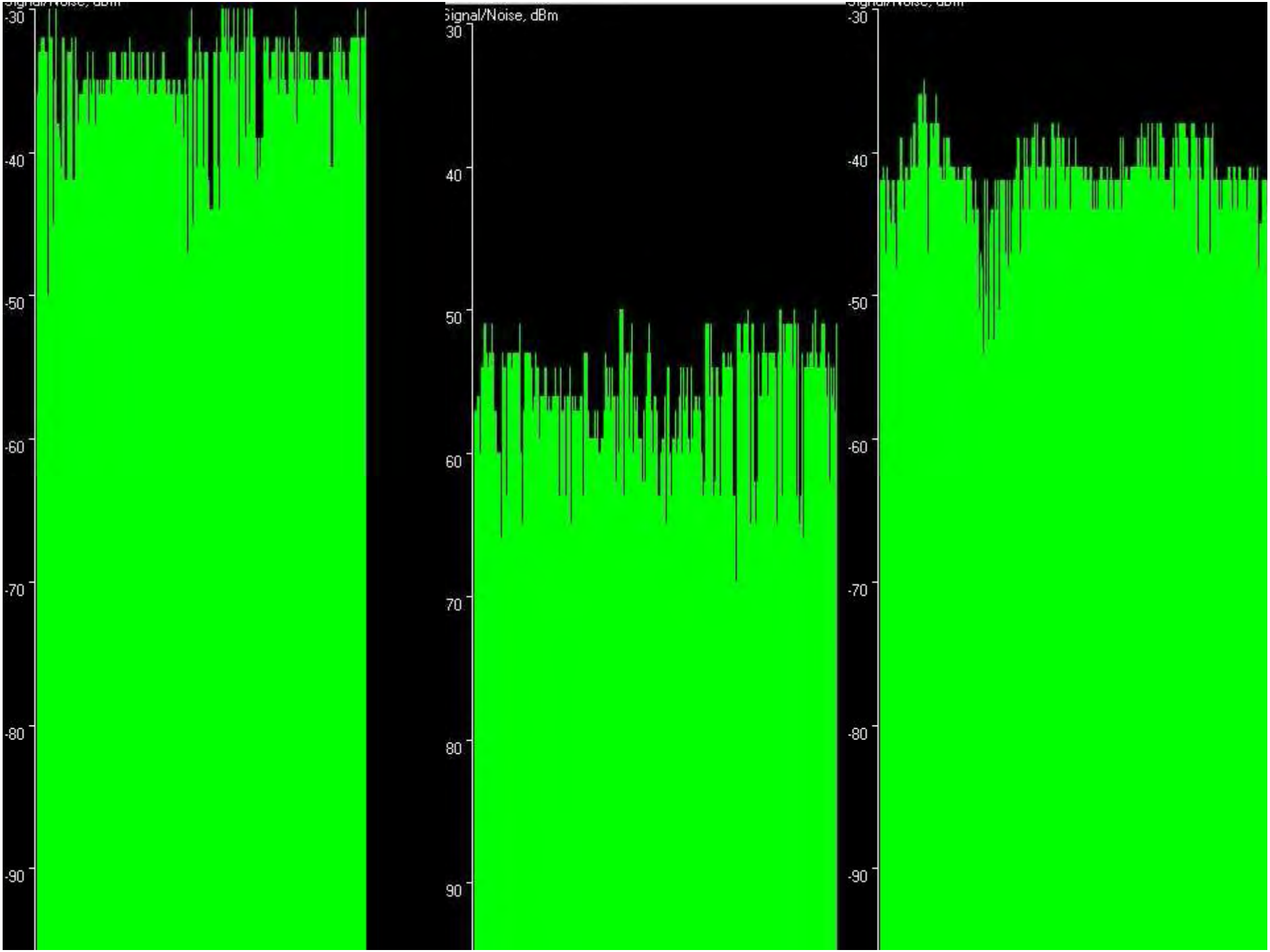
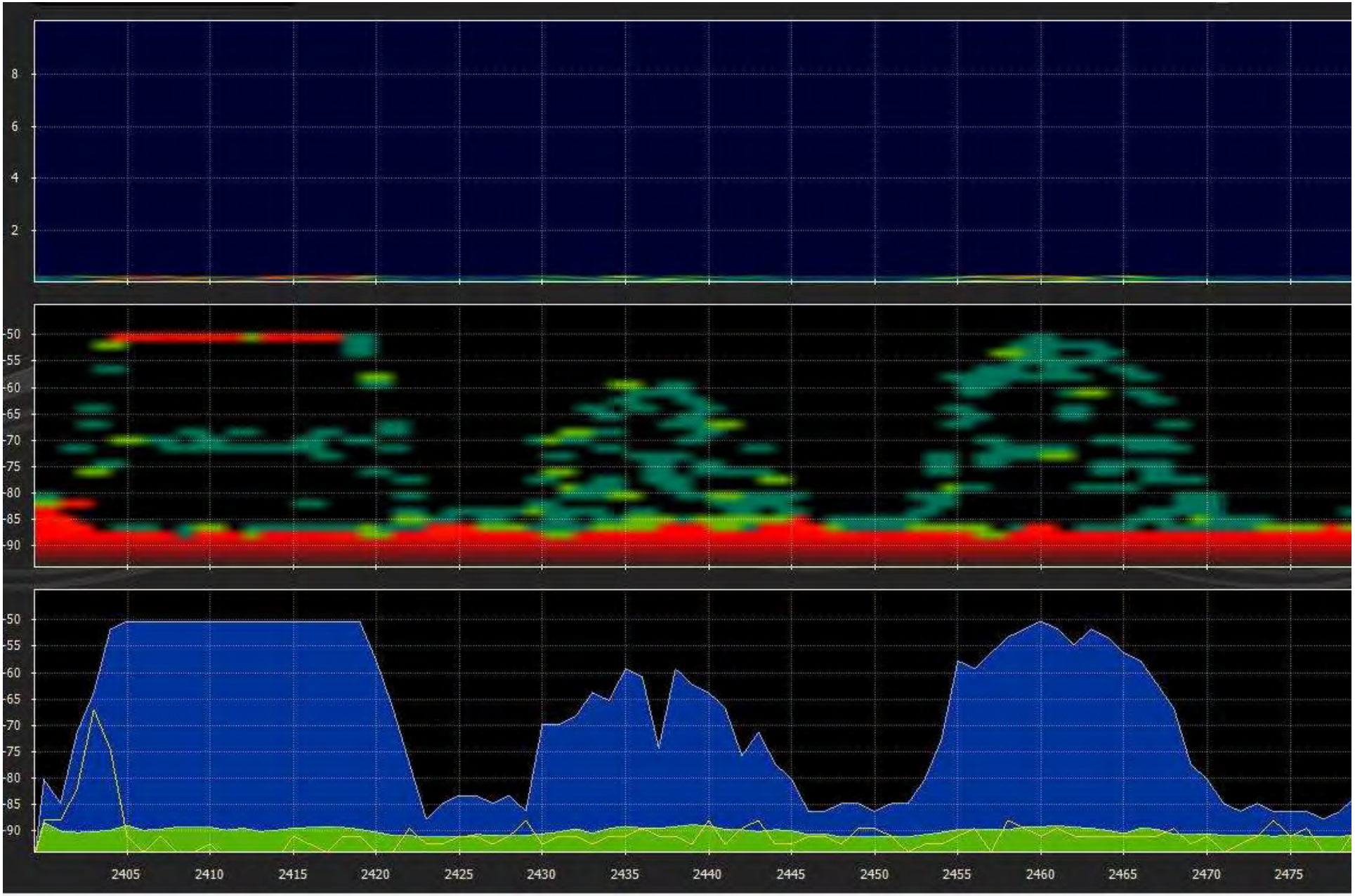
<no ssid> A O 009 3 0.0.0.0 0B


File View Reports Help
USB: Wi-Spy
Network Stumbler - [20080912231546]
File Edit View Device Window Help
Channels
SSIDs
Filters
MAC SSID Name Chan Speed Vendor Type Enc...
001DA2886621 11 54 Mbps (Fake) AP WEP
001E13086130 6 54 Mbps (Fake) AP WEP
001E13086132 gogoinflight 6 54 Mbps (Fake) AP
001DE58D5A80 1 54 Mbps (Fake) AP WEP
001E13086131 6 54 Mbps (Fake) AP WEP
001DE58D5A81 1 54 Mbps (Fake) AP WEP
001DE58D5A82 gogoinflight 1 54 Mbps (Fake) AP
001DA2886620 11 54 Mbps (Fake) AP WEP
001DA2886622 gogoinflight 11 54 Mbps (Fake) AP
Ready
8 APs active
GPS: Disabled
Time [sec]
Amplitude [dBm]

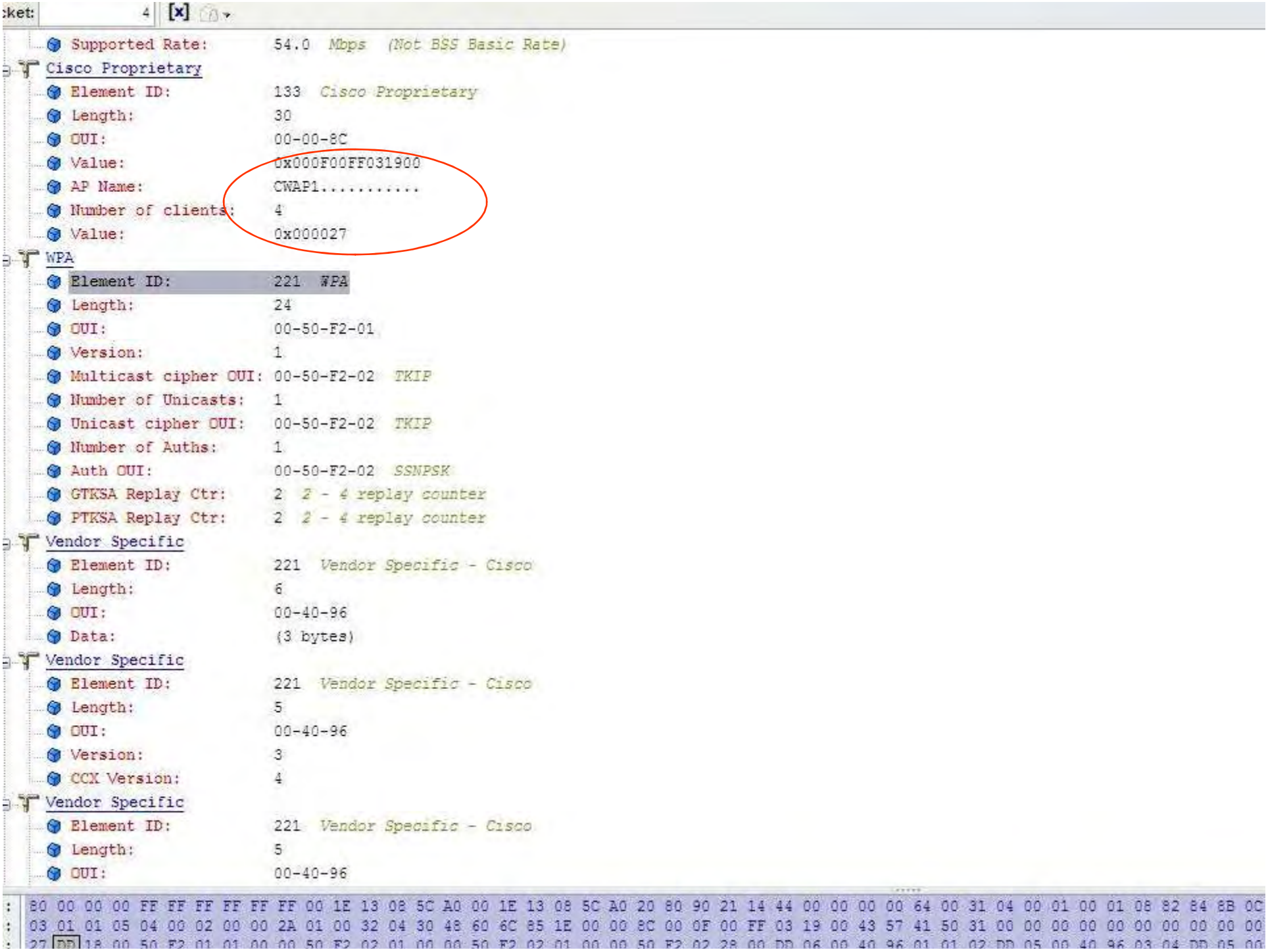

Signal/Noise, dBm
-30
-40
-50
-60
-70
-80
-90
30
40
50
60
70
80
90


HELL
...with computers!



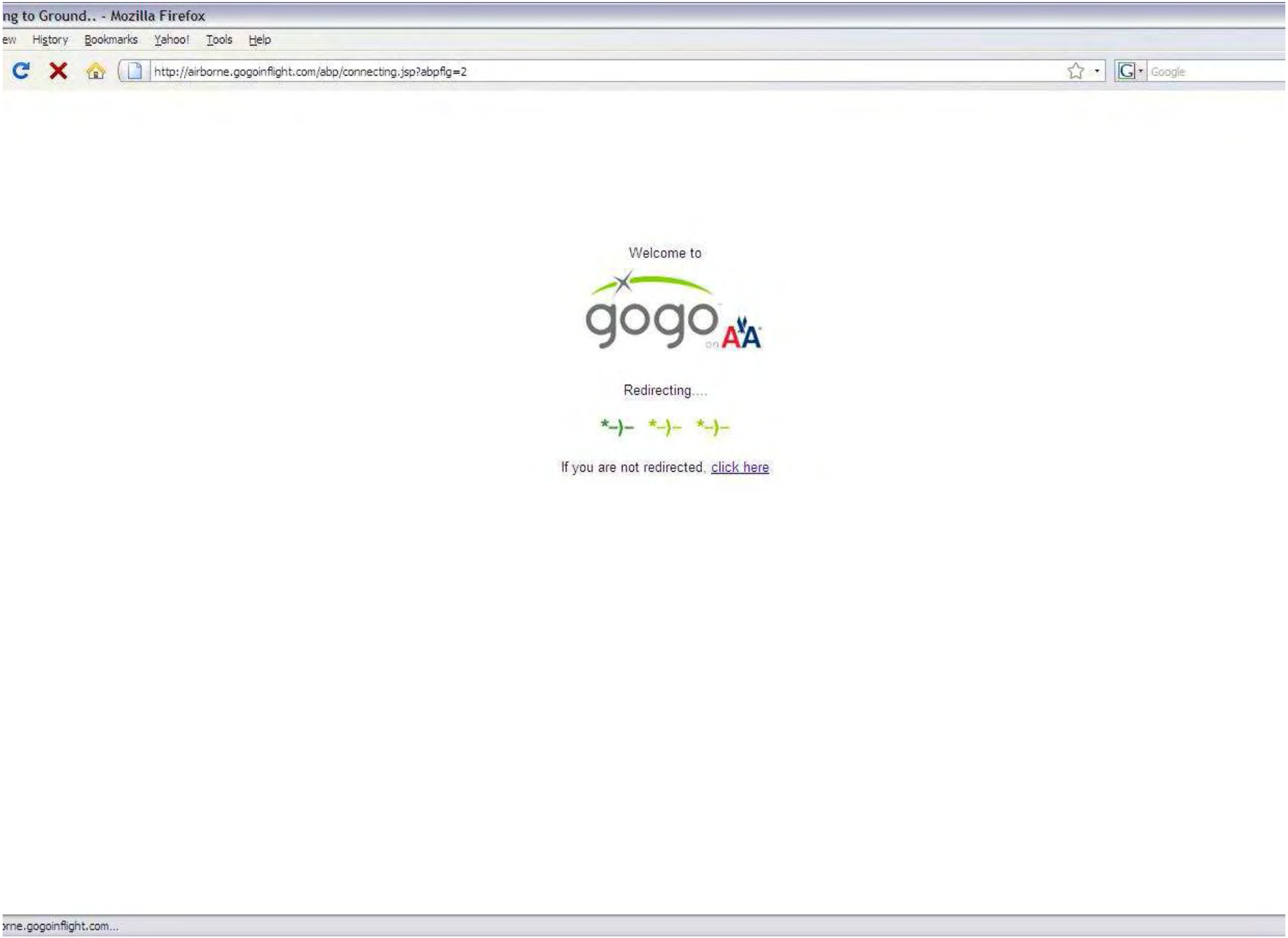
Use Scroll Wheel to move forward and backward through data.

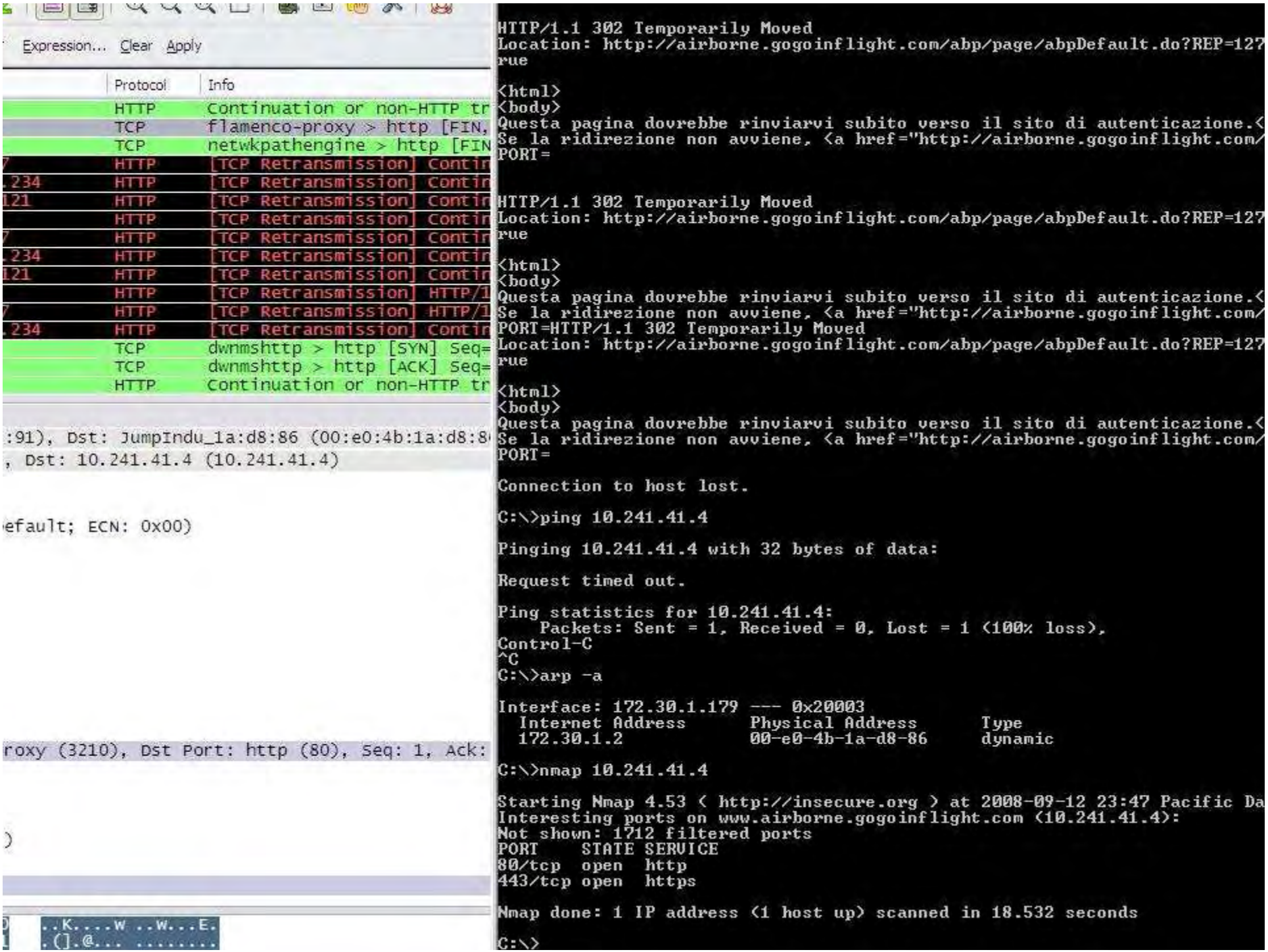
14 SEP 2008, 3:48:57 PM

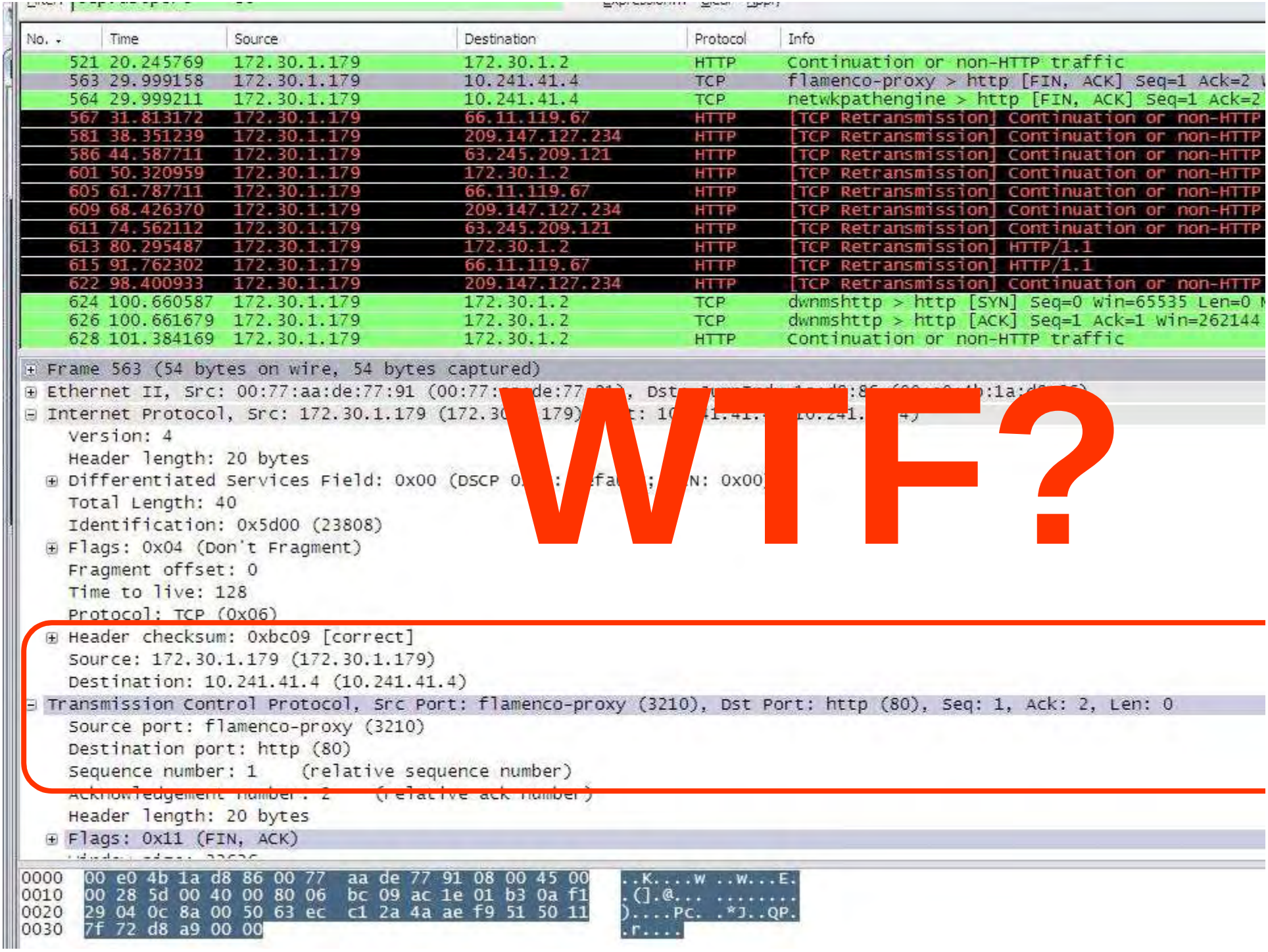

ket: 4 [x]
Supported Rate: 54.0 Mbps (Not BSS Basic Rate)
Cisco Proprietary
Element ID: 133 Cisco Proprietary
Length: 30
OUI: 00-00-8C
Value: 0x000F00FF031900
AP Name: CWAP1.....
Number of clients: 4
Value: 0x000027
WPA
Element ID: 221 WPA
Length: 24
OUI: 00-50-F2-01
Version: 1
Multicast cipher OUI: 00-50-F2-02 TKIP
Number of Unicasts: 1
Unicast cipher OUI: 00-50-F2-02 TKIP
Number of Auths: 1
Auth OUI: 00-50-F2-02 SSNPSK
GTKSA Replay Ctr: 2 2 - 4 replay counter
PTKSA Replay Ctr: 2 2 - 4 replay counter
Vendor Specific
Element ID: 221 Vendor Specific - Cisco
Length: 6
OUI: 00-40-96
Data: (3 bytes)
Vendor Specific
Element ID: 221 Vendor Specific - Cisco
Length: 5
OUI: 00-40-96
Version: 3
CCX Version: 4
Vendor Specific
Element ID: 221 Vendor Specific - Cisco
Length: 5
OUI: 00-40-96
80 00 00 00 FF FF FF FF FF FF 00 1E 13 08 5C A0 00 1E 13 08 5C A0 20 80 90 21 14 44 00 00 00 00 64 00 31 04 00 01 00 01 08 82 84 8B 0C
03 01 01 05 04 00 02 00 00 2A 01 00 32 04 30 48 60 6C 85 1E 00 00 8C 00 0F 00 FF 03 19 00 43 57 41 50 31 00 00 00 00 00 00 00 00 00 00
27 DD 18 00 50 F2 01 01 00 00 50 F2 02 01 00 00 50 F2 02 01 00 00 50 F2 02 28 00 DD 06 00 40 96 01 01 02 DD 05 00 40 96 03 04 DD 05 00

```
                        ......0. ........ QoS is Not Supported
                        .......0 ........ Spectrum Mgmt Disabled
                        ........ 0....... Channel Agility Not Used
                        ........ .0...... PBCC Not Allowed
                        ........ ..1..... Short Preamble
                        ........ ...1.... Privacy Enabled
                        ........ ....0... CF Poll Not Requested
                        ........ .....0.. CF Not Pollable
                        ........ ......0. Not an IBSS Type Network
                        ........ .......1 ESS Type Network
SSID
  Element ID:           0  SSID
  Length:               1
  SSID:                 .
Supported Rates
  Element ID:           1  Supported Rates
  Length:               8
  Supported Rate:       1.0  Mbps  (BSS Basic Rate)
  Supported Rate:       2.0  Mbps  (BSS Basic Rate)
  Supported Rate:       5.5  Mbps  (BSS Basic Rate)
  Supported Rate:       6.0  Mbps  (Not BSS Basic Rate)
  Supported Rate:       9.0  Mbps  (Not BSS Basic Rate)
  Supported Rate:       11.0  Mbps  (BSS Basic Rate)
  Supported Rate:       12.0  Mbps  (Not BSS Basic Rate)
  Supported Rate:       18.0  Mbps  (Not BSS Basic Rate)
Direct Sequence Parameter Set
  Element ID:           3  Direct Sequence Parameter Set
  Length:               1
  Channel:              1
Traffic Indication Map
  Element ID:           5  Traffic Indication Map
  Length:               4
  DTIM Count:           0
  DTIM Period:          2
  Bitmap Control:       %0000000
                        ---- ---. Bitmap Offset: 0
```

```
0000:  80 00 00 00 FF FF FF FF FF FF 00 1E 13 08 5C A0 00 1E 13 08 5C A0 20 80 90 21 14 44 00 00 00 00 64 00 31 04 00 01 00 01 08 82 84 8
0049:  03 01 01 05 04 00 02 00 00 2A 01 00 32 04 30 48 60 6C 85 1E 00 00 8C 00 0F 00 FF 03 19 00 43 57 41 50 31 00 00 00 00 00 00 00 00 0
0098:  27 DD 18 00 50 F2 01 01 00 00 50 F2 02 01 00 00 50 F2 02 01 00 00 50 F2 02 28 00 DD 06 00 40 96 01 01 02 DD 05 00 40 96 03 04 DD 0
0147:  DD 18 00 50 F2 02 01 01 82 00 03 A4 00 00 27 A4 00 00 42 43 5E 00 62 32 2F 00 00 00 00 00
```


ng to Ground.. - Mozilla Firefox
ew History Bookmarks Yahoo! Tools Help
http://airborne.gogoinflight.com/abp/connecting.jsp?abpflg=2
Google
Welcome to
gogo on AA
Redirecting....
*-)- *-)- *-)-
If you are not redirected, click here
rne.gogoinflight.com...

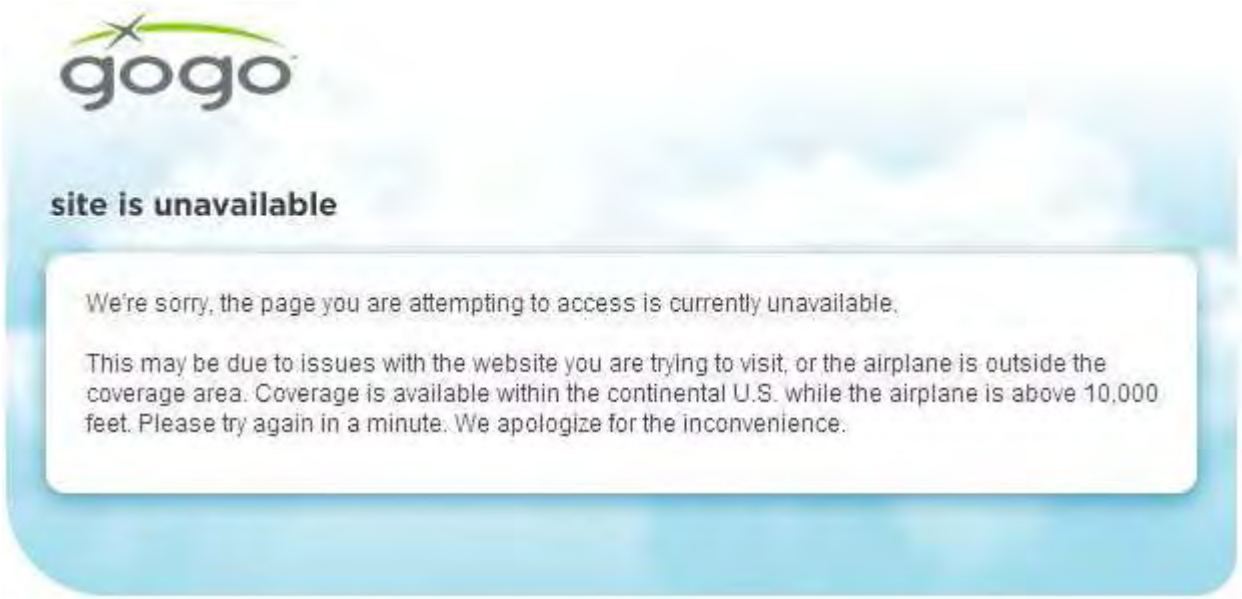

Expression... Clear Apply
Protocol
Info
HTTP Continuation or non-HTTP tr
TCP flamenco-proxy > http [FIN,
TCP netwkpathengine > http [FIN
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] Contin
HTTP [TCP Retransmission] HTTP/1
HTTP [TCP Retransmission] HTTP/1
HTTP [TCP Retransmission] Contin
TCP dwnmshttp > http [SYN] Seq=
TCP dwnmshttp > http [ACK] Seq=
HTTP Continuation or non-HTTP tr
:91), Dst: JumpIndu_1a:d8:86 (00:e0:4b:1a:d8:8
, Dst: 10.241.41.4 (10.241.41.4)
efault; ECN: 0x00)
roxy (3210), Dst Port: http (80), Seq: 1, Ack:
)
..K....w ..w...E.
.(].@... ....
HTTP/1.1 302 Temporarily Moved
Location: http://airborne.gogoinflight.com/abp/page/abpDefault.do?REP=127
rue
<html>
<body>
Questa pagina dovrebbe rinviarvi subito verso il sito di autenticazione.<
Se la ridirezione non avviene, <a href="http://airborne.gogoinflight.com/
PORT=
HTTP/1.1 302 Temporarily Moved
Location: http://airborne.gogoinflight.com/abp/page/abpDefault.do?REP=127
rue
<html>
<body>
Questa pagina dovrebbe rinviarvi subito verso il sito di autenticazione.<
Se la ridirezione non avviene, <a href="http://airborne.gogoinflight.com/
PORT=HTTP/1.1 302 Temporarily Moved
Location: http://airborne.gogoinflight.com/abp/page/abpDefault.do?REP=127
rue
<html>
<body>
Questa pagina dovrebbe rinviarvi subito verso il sito di autenticazione.<
Se la ridirezione non avviene, <a href="http://airborne.gogoinflight.com/
PORT=
Connection to host lost.
C:\>ping 10.241.41.4
Pinging 10.241.41.4 with 32 bytes of data:
Request timed out.
Ping statistics for 10.241.41.4:
Packets: Sent = 1, Received = 0, Lost = 1 (100% loss),
Control-C
^C
C:\>arp -a
Interface: 172.30.1.179 --- 0x20003
Internet Address Physical Address Type
172.30.1.2 00-e0-4b-1a-d8-86 dynamic
C:\>nmap 10.241.41.4
Starting Nmap 4.53 (http://insecure.org) at 2008-09-12 23:47 Pacific Da
Interesting ports on www.airborne.gogoinflight.com (10.241.41.4):
Not shown: 1712 filtered ports
PORT STATE SERVICE
80/tcp open http
443/tcp open https
Nmap done: 1 IP address (1 host up) scanned in 18.532 seconds
C:\>


No. Time Source Destination Protocol Info
521 20.245769 172.30.1.179 172.30.1.2 HTTP Continuation or non-HTTP traffic
563 29.999158 172.30.1.179 10.241.41.4 TCP flamenco-proxy > http [FIN, ACK] Seq=1 Ack=2
564 29.999211 172.30.1.179 10.241.41.4 TCP netwkpathengine > http [FIN, ACK] Seq=1 Ack=2
567 31.813172 172.30.1.179 66.11.119.67 HTTP [TCP Retransmission] Continuation or non-HTTP
581 38.351239 172.30.1.179 209.147.127.234 HTTP [TCP Retransmission] Continuation or non-HTTP
586 44.587711 172.30.1.179 63.245.209.121 HTTP [TCP Retransmission] Continuation or non-HTTP
601 50.320959 172.30.1.179 172.30.1.2 HTTP [TCP Retransmission] Continuation or non-HTTP
605 61.787711 172.30.1.179 66.11.119.67 HTTP [TCP Retransmission] Continuation or non-HTTP
609 68.426370 172.30.1.179 209.147.127.234 HTTP [TCP Retransmission] Continuation or non-HTTP
611 74.562112 172.30.1.179 63.245.209.121 HTTP [TCP Retransmission] Continuation or non-HTTP
613 80.295487 172.30.1.179 172.30.1.2 HTTP [TCP Retransmission] HTTP/1.1
615 91.762302 172.30.1.179 66.11.119.67 HTTP [TCP Retransmission] HTTP/1.1
622 98.400933 172.30.1.179 209.147.127.234 HTTP [TCP Retransmission] Continuation or non-HTTP
624 100.660587 172.30.1.179 172.30.1.2 TCP dwnmshttp > http [SYN] Seq=0 Win=65535 Len=0
626 100.661679 172.30.1.179 172.30.1.2 TCP dwnmshttp > http [ACK] Seq=1 Ack=1 Win=262144
628 101.384169 172.30.1.179 172.30.1.2 HTTP Continuation or non-HTTP traffic
Frame 563 (54 bytes on wire, 54 bytes captured)
Ethernet II, Src: 00:77:aa:de:77:91
Internet Protocol, Src: 172.30.1.179 (172.30.1.179)
Version: 4
Header length: 20 bytes
Differentiated Services Field: 0x00
Total Length: 40
Identification: 0x5d00 (23808)
Flags: 0x04 (Don't Fragment)
Fragment offset: 0
Time to live: 128
Protocol: TCP (0x06)
Header checksum: 0xbc09 [correct]
Source: 172.30.1.179 (172.30.1.179)
Destination: 10.241.41.4 (10.241.41.4)
Transmission Control Protocol, Src Port: flamenco-proxy (3210), Dst Port: http (80), Seq: 1, Ack: 2, Len: 0
Source port: flamenco-proxy (3210)
Destination port: http (80)
Sequence number: 1 (relative sequence number)
Header length: 20 bytes
Flags: 0x11 (FIN, ACK)
0000 00 e0 4b 1a d8 86 00 77 aa de 77 91 08 00 45 00 ..K....w ..w...E.
0010 00 28 5d 00 40 00 80 06 bc 09 ac 1e 01 b3 0a f1 .(].@... ....
0020 29 04 0c 8a 00 50 63 ec c1 2a 4a ae f9 51 50 11)....Pc. .*J..QP.
0030 7f 72 d8 a9 00 00 .r....

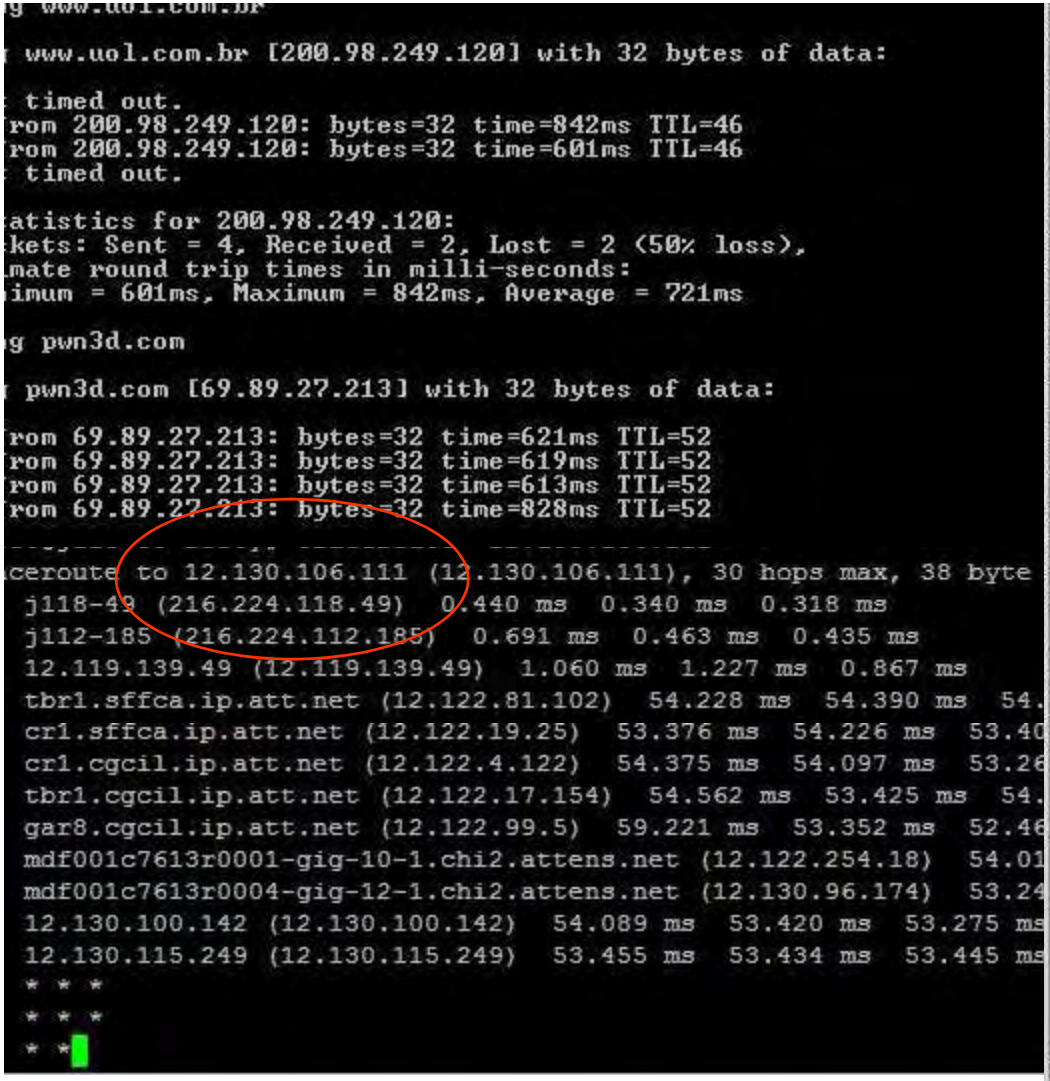
WTF?

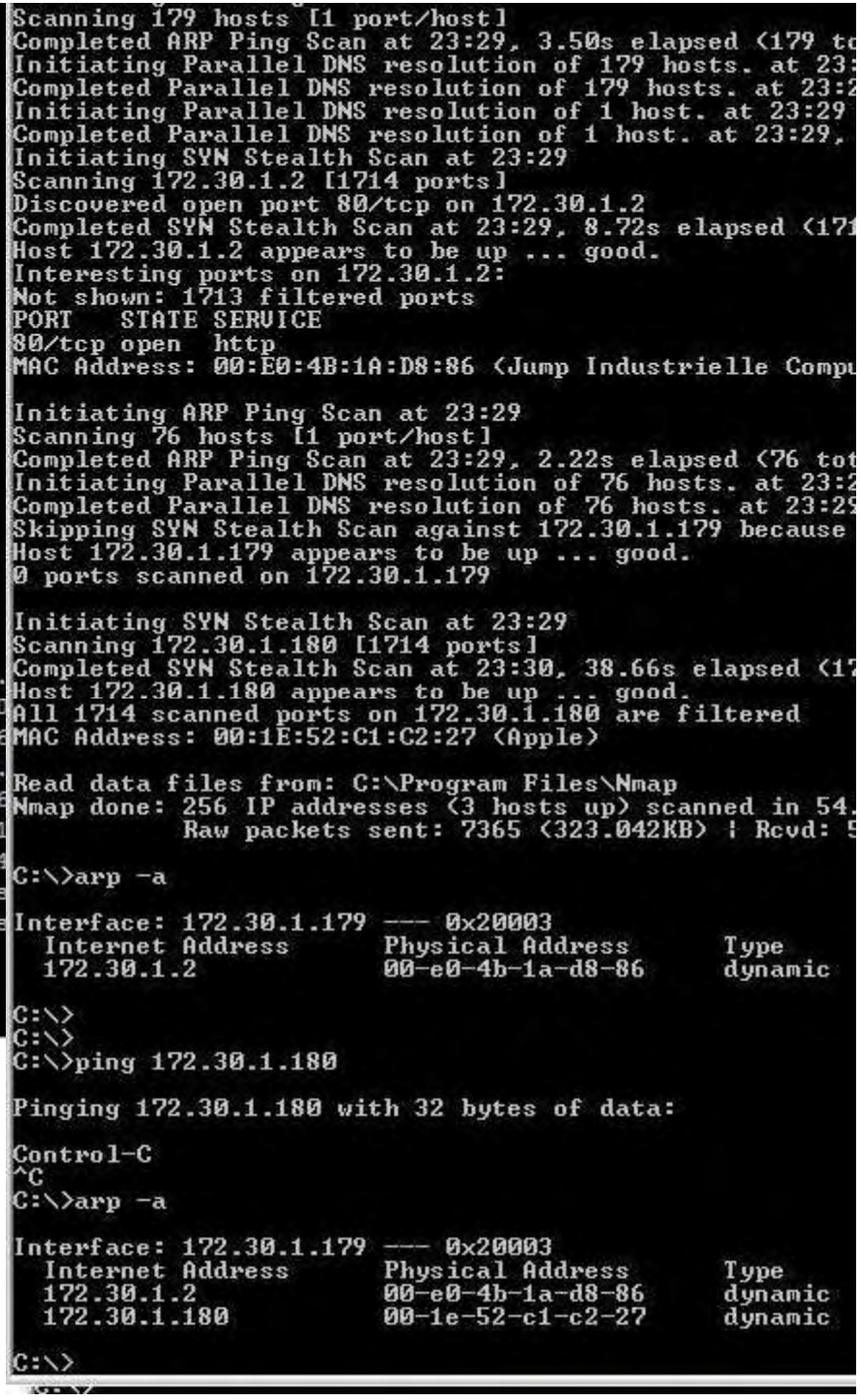

hatIsMyIPAddress.com
Dedicated to IP address discussion
ge IP | Hide IP | IP Lookup | Trace Email | Blacklist Check | IP Tools | FAQs | Forum | Resources | Polls
What is my IP address?
Proxy Server Detected!
(proxy test results)
Proxy Server IP address: 12.130.106.111
Proxy Server Details: 1.1 172.30.4.2:3128 (squid/2.6.STABLE14)
Proxy Reports IP as: 172.30.1.164
(Unable to confirm.)
GoToMyPC - Access Your PC from Anywhere
Tools
Starting Nmap 4.53 (http://insecure.org) at 2008-09-14 16:16 Pacific Daylight Time
Interesting ports on 172.30.1.2:
Not shown: 1712 filtered ports
PORT STATE SERVICE
80/tcp open http
3128/tcp open squid-http
MAC Address: 00:E0:4B:1A:D8:73 (Jump Industrielle Computertechnik Gmbh)
Nmap done: 1 IP address (1 host up) scanned in 11.734 seconds
Is my IP address blacklisted?
Can someone find out who I am by my IP?
I've been banned, what do I do?
12.130.106.111
Lookup IP Address
IP Lookup now shows ISP, Organization, Proxy Status, and Connection Type!
IP Address Location: , United States us flag
Please see the poll for map accuracy.
What is an IP address?
Every device connected to the public Internet is assigned a unique number known as an Internet Protocol (IP) address. IP addresses consist of four n
called a 'dotted-quad') and look something like 127.0.0.1.
Since these numbers are usually assigned to internet service providers within region-based blocks, an IP address can often be used to identify the re
computer is connecting to the Internet. An IP address can sometimes be used to show the user's general location.

come back later




```
Pinging www.google.com [1.1.1.1] with 32 bytes of data:
Request timed out.
```


www.uol.com.br [200.98.249.120] with 32 bytes of data:
timed out.
rom 200.98.249.120: bytes=32 time=842ms TTL=46
rom 200.98.249.120: bytes=32 time=601ms TTL=46
timed out.
atistics for 200.98.249.120:
kets: Sent = 4, Received = 2, Lost = 2 (50% loss),
mate round trip times in milli-seconds:
imum = 601ms, Maximum = 842ms, Average = 721ms
g pwn3d.com
pwn3d.com [69.89.27.213] with 32 bytes of data:
rom 69.89.27.213: bytes=32 time=621ms TTL=52
rom 69.89.27.213: bytes=32 time=619ms TTL=52
rom 69.89.27.213: bytes=32 time=613ms TTL=52
rom 69.89.27.213: bytes=32 time=828ms TTL=52
ceroute to 12.130.106.111 (12.130.106.111), 30 hops max, 38 byte
j118-49 (216.224.118.49) 0.440 ms 0.340 ms 0.318 ms
j112-185 (216.224.112.185) 0.691 ms 0.463 ms 0.435 ms
12.119.139.49 (12.119.139.49) 1.060 ms 1.227 ms 0.867 ms
tbr1.sffca.ip.att.net (12.122.81.102) 54.228 ms 54.390 ms 54.
cr1.sffca.ip.att.net (12.122.19.25) 53.376 ms 54.226 ms 53.40
cr1.cgcil.ip.att.net (12.122.4.122) 54.375 ms 54.097 ms 53.26
tbr1.cgcil.ip.att.net (12.122.17.154) 54.562 ms 53.425 ms 54.
gar8.cgcil.ip.att.net (12.122.99.5) 59.221 ms 53.352 ms 52.46
mdf001c7613r0001-gig-10-1.chi2.attens.net (12.122.254.18) 54.01
mdf001c7613r0004-gig-12-1.chi2.attens.net (12.130.96.174) 53.24
12.130.100.142 (12.130.100.142) 54.089 ms 53.420 ms 53.275 ms
12.130.115.249 (12.130.115.249) 53.455 ms 53.434 ms 53.445 ms
* * *
* * *
* *


Scanning 179 hosts [1 port/host]
Completed ARP Ping Scan at 23:29, 3.50s elapsed (179 to
Initiating Parallel DNS resolution of 179 hosts. at 23:
Completed Parallel DNS resolution of 179 hosts. at 23:2
Initiating Parallel DNS resolution of 1 host. at 23:29
Completed Parallel DNS resolution of 1 host. at 23:29,
Initiating SYN Stealth Scan at 23:29
Scanning 172.30.1.2 [1714 ports]
Discovered open port 80/tcp on 172.30.1.2
Completed SYN Stealth Scan at 23:29, 8.72s elapsed (171
Host 172.30.1.2 appears to be up ... good.
Interesting ports on 172.30.1.2:
Not shown: 1713 filtered ports
PORT STATE SERVICE
80/tcp open http
MAC Address: 00:E0:4B:1A:D8:86 (Jump Industrielle Compu
Initiating ARP Ping Scan at 23:29
Scanning 76 hosts [1 port/host]
Completed ARP Ping Scan at 23:29, 2.22s elapsed (76 tot
Initiating Parallel DNS resolution of 76 hosts. at 23:2
Completed Parallel DNS resolution of 76 hosts. at 23:29
Skipping SYN Stealth Scan against 172.30.1.179 because
Host 172.30.1.179 appears to be up ... good.
0 ports scanned on 172.30.1.179
Initiating SYN Stealth Scan at 23:29
Scanning 172.30.1.180 [1714 ports]
Completed SYN Stealth Scan at 23:30, 38.66s elapsed (17
Host 172.30.1.180 appears to be up ... good.
All 1714 scanned ports on 172.30.1.180 are filtered
MAC Address: 00:1E:52:C1:C2:27 (Apple)
Read data files from: C:\Program Files\Nmap
Nmap done: 256 IP addresses (3 hosts up) scanned in 54.
Raw packets sent: 7365 (323.042KB) | Rcvd: 5
C:\>arp -a
Interface: 172.30.1.179 --- 0x20003
Internet Address Physical Address Type
172.30.1.2 00-e0-4b-1a-d8-86 dynamic
C:\>
C:\>
C:\>ping 172.30.1.180
Pinging 172.30.1.180 with 32 bytes of data:
Control-C
^C
C:\>arp -a
Interface: 172.30.1.179 --- 0x20003
Internet Address Physical Address Type
172.30.1.2 00-e0-4b-1a-d8-86 dynamic
172.30.1.180 00-1e-52-c1-c2-27 dynamic
C:\>

ARIN WHOIS Database Search

Relevant Links: ARIN Home Page ARIN Site Map Training: *Querying ARIN's WHOIS*

Search ARIN WHOIS for: aircell

Submit Query

```
AIRCELL (AIRCE-1)
AIRCELL AIRCELL238-14-96 (NET-12-168-14-96-1) 12.168.14.96 - 12.168.14.127
AIRCELL AIRCELL851-10-48 (NET-12-192-10-48-1) 12.192.10.48 - 12.192.10.55
Aircell Communications SBCIS-100320-15433 (NET-63-203-25-0-1) 63.203.25.0 - 63.203.25.7
Aircell LLC SUNGARD-04970AE1-8AAE-4298-8DB (NET-74-205-236-96-1) 74.205.236.96 - 74.205.236.103
Aircell LLC SUNGARD-04970AE1-8AAE-4298-8DB (NET-208-99-180-0-1) 208.99.180.0 - 208.99.183.255

# ARIN WHOIS database, last updated 2008-09-13 19:10
# Enter ? for additional hints on searching ARIN's WHOIS database.
```

Other WHOIS Servers: AfriNIC APNIC LACNIC RIPE InterNIC

Request Bulk Copies of ARIN WHOIS Data

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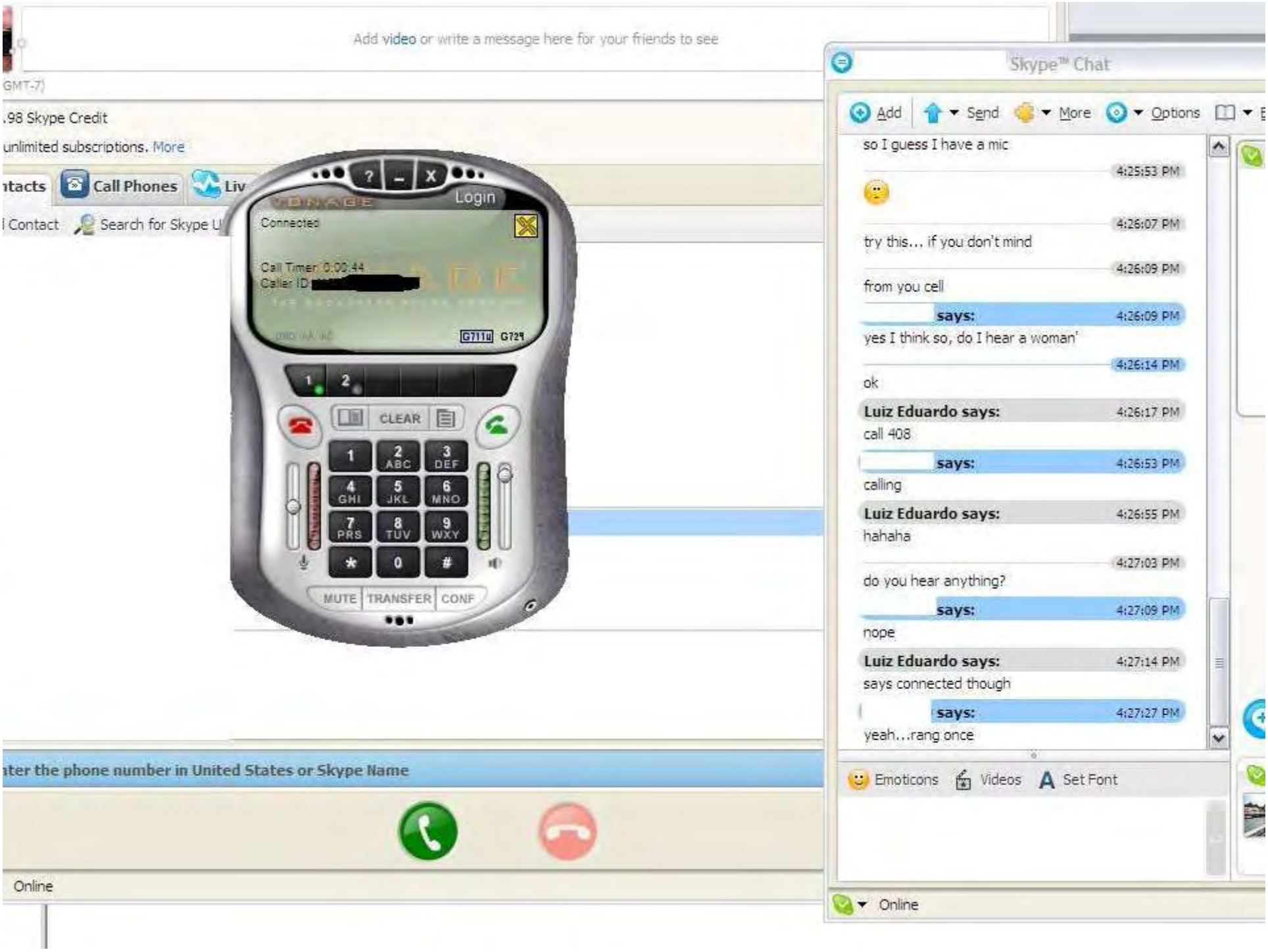
Add video or write a message here for your friends to see
.98 Skype Credit
unlimited subscriptions. More
Call Phones
Contact
Search for Skype U
Login
Connected
Call Timer: 0:03:44
Caller ID:
G711u G729
CLEAR
MUTE TRANSFER CONF
ter the phone number in United States or Skype Name
Online
Skype™ Chat
Add Send More Options
so I guess I have a mic
4:25:53 PM
4:26:07 PM
try this... if you don't mind
4:26:09 PM
from you cell
says: 4:26:09 PM
yes I think so, do I hear a woman'
4:26:14 PM
ok
Luiz Eduardo says: 4:26:17 PM
call 408
says: 4:26:53 PM
calling
Luiz Eduardo says: 4:26:55 PM
hahaha
4:27:03 PM
do you hear anything?
says: 4:27:09 PM
nope
Luiz Eduardo says: 4:27:14 PM
says connected though
says: 4:27:27 PM
yeah...rang once
Emoticons Videos Set Font
Online


Gogo Inflight Internet
What Is My IP Address? - IP Address L...
Speakeasy - Speed Test
Account Login | Contact
speakeasy
Communications Simplified™
Current Deals & Offers
- Full T1 only $359
- Free Broadband w/ Managed Hosting
- DSL: Free Hardware & First Month
View all Deals & Offers...
FREE BROADBAND
with Managed Hosting
Find Out More...
LIMITED TIME OFFER
BEGIN THE SPEED TEST
LOS ANGELES, CA
DALLAS, TX
CHICAGO, IL
ATLANTA, GA
NEW YORK CITY, NY
WASHINGTON, DC
768k
LINE SPEED
10mb
20mb+
PERCENT COMPLETE
219
TESTING UPLOAD SPEED...
1344 kbps
DOWNLOAD SPEED
Submit
CHOOSE A SERVER:
SEATTLE, WA
SAN FRANCISCO, CA
Free installation & hardware
Learn More
NEW
ADSL2
15.0Mbps
258 kbps
DOWNLOAD SPEED
187 kbps
UPLOAD SPEED
LEARN MORE ABOUT BROADBAND SPEED
OOKLA

okay, but, how about security?



lessons learned



how about the service in other countries?



major differences





some details

(and I can always be wrong, remember?)

- user cellphone connects to mini cell network in the plane
- voice and data calls get routed to satellite* that connects to ground stations
- crew controlled voicecalls
  - being able to switch to silent mode (thank God!)
- # of simultaneous calls
- uplink speed, depends on the technology





thanks

luiz.eduardo(a t)gmail.com