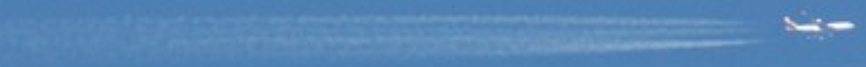
a 30,000 feet look at wi-fi, the freezing spot



luiz eduardo

GTS 12

São Paulo

hello

gts 12

agenda

- motivation
- the old and the new
- the pieces of the puzzle
- the experiment(s)
- status of inflight wifi in Brazil
- future stuff

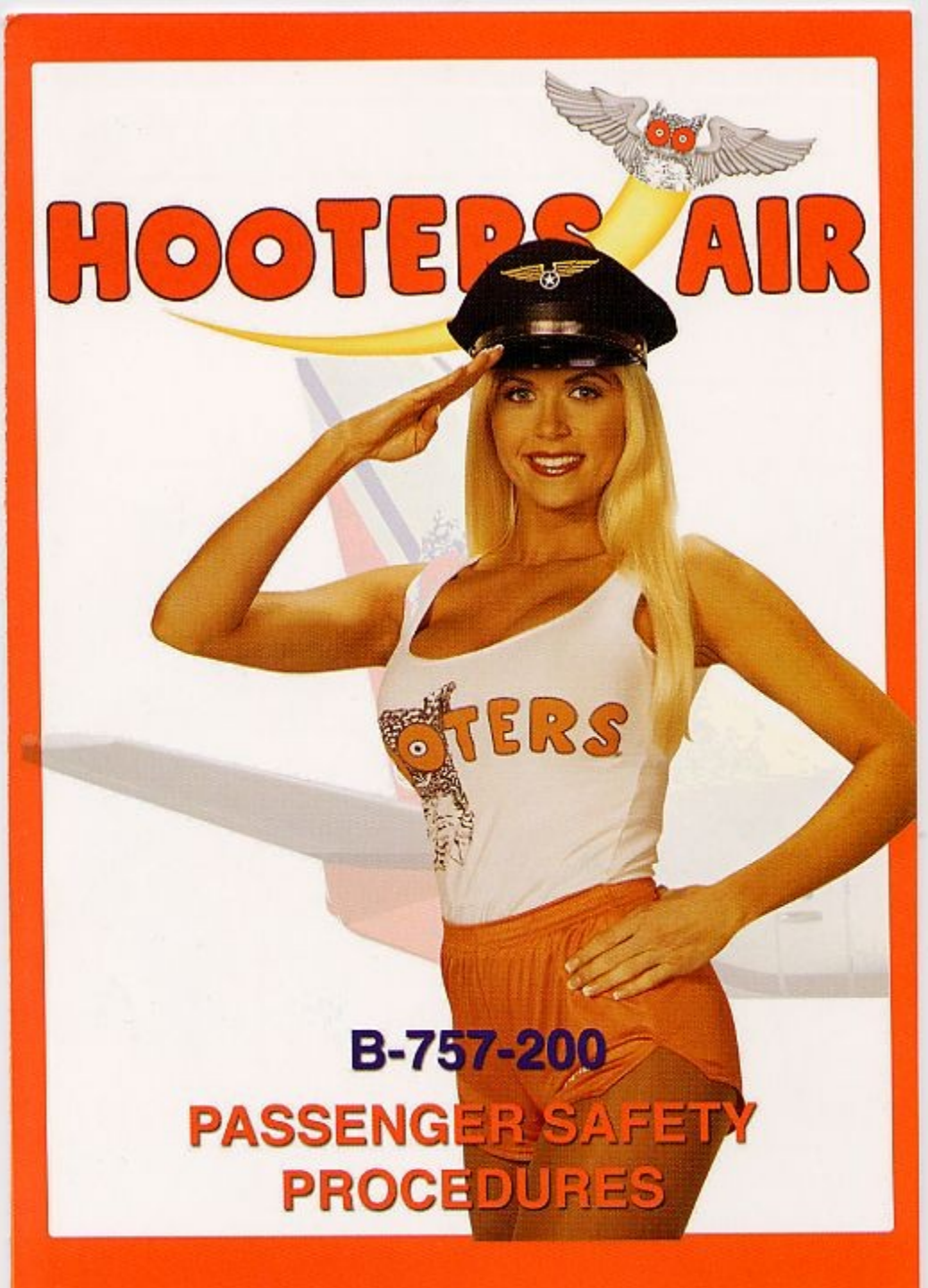
disclaimer

motivation

the pieces of the puzzle

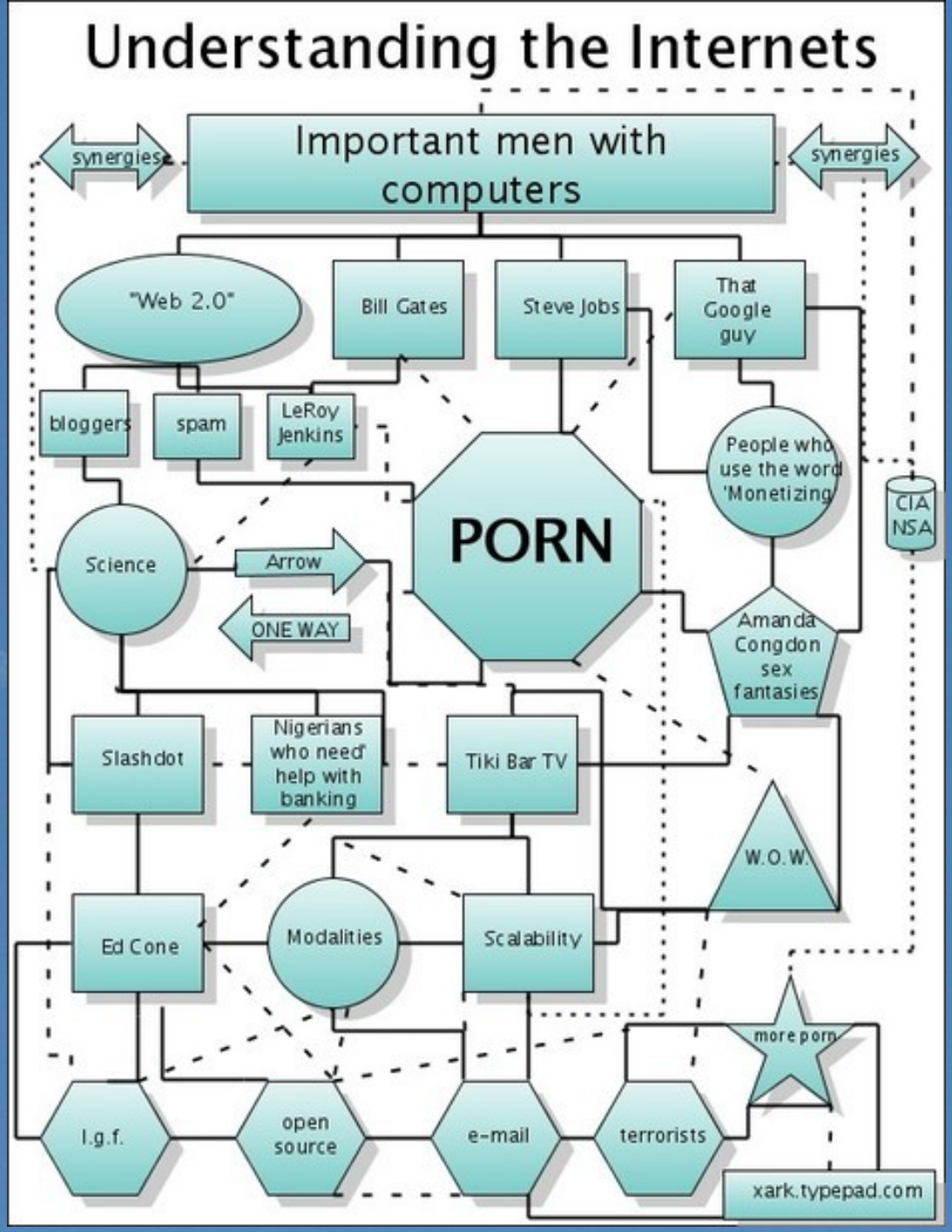

Wi Fi
TM

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
I.g.f.
open source
e-mail
terrorists
xark.typepad.com

the old school way

gts 12

the "new" stuff


HIGHWAY PATROL
HIGHWAY PATROL
HIGHWAY PATROL
HIGHWAY PATROL

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

gts 12

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
N507JB
the Left Wing Airline
jetBlue

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.

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

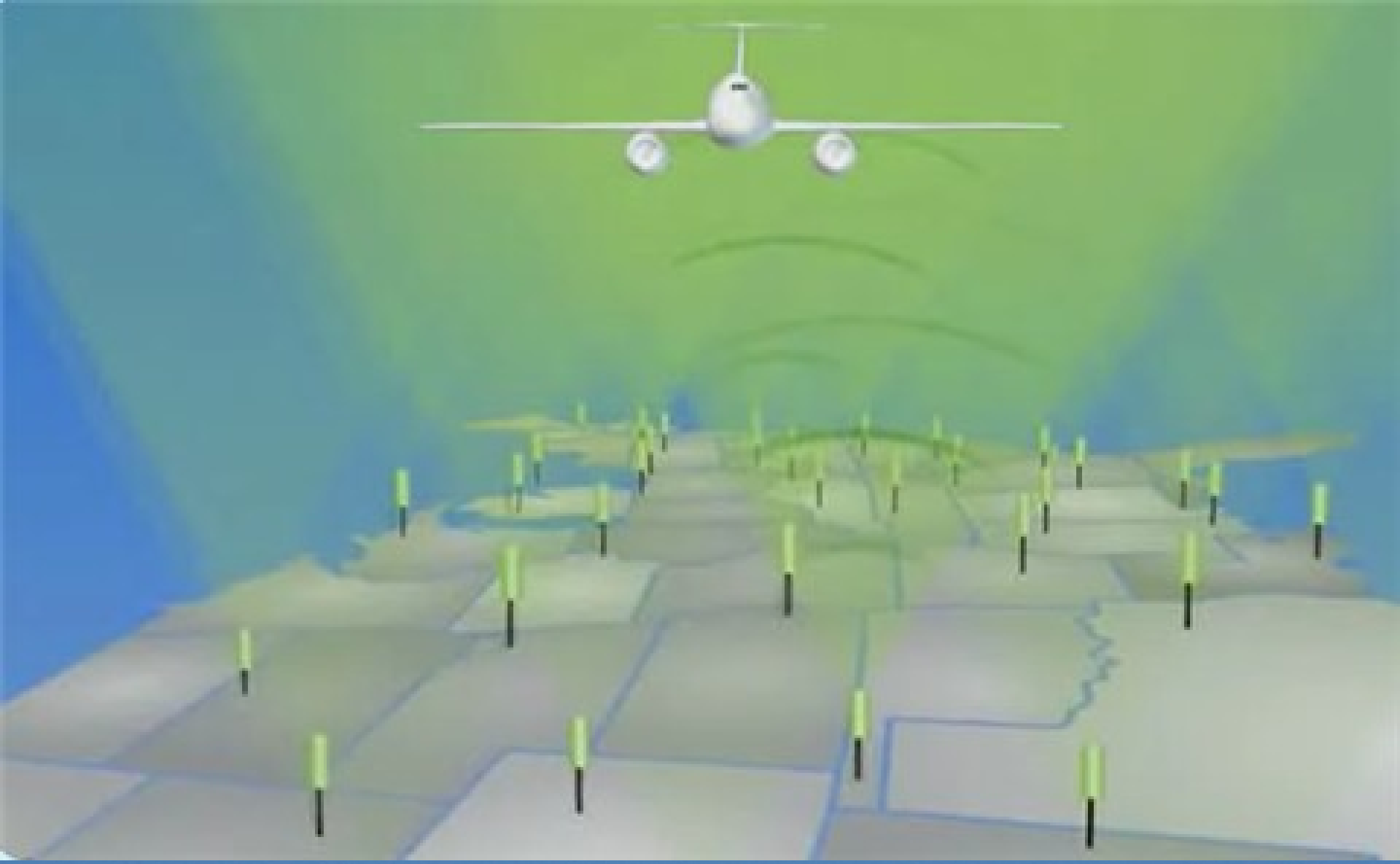
Aviation Photos: Boeing **767-200**
Top Views >. Today · One Year or Older · One Month or Older · One Week or Older · 48 Hours or Older · Recently Reuploaded Shots ...
www.airliners.net/search/photo.search?aircraft_genericsearch=Boeing%20**767**-**200**&distinct_entry=true - 155k - Cached - Similar pages - 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.



STARK INDUSTRIES


PAULANER

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

:: Index CWNP Program

There's no better way to fly.
Lufthansa

deutsch | e

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.

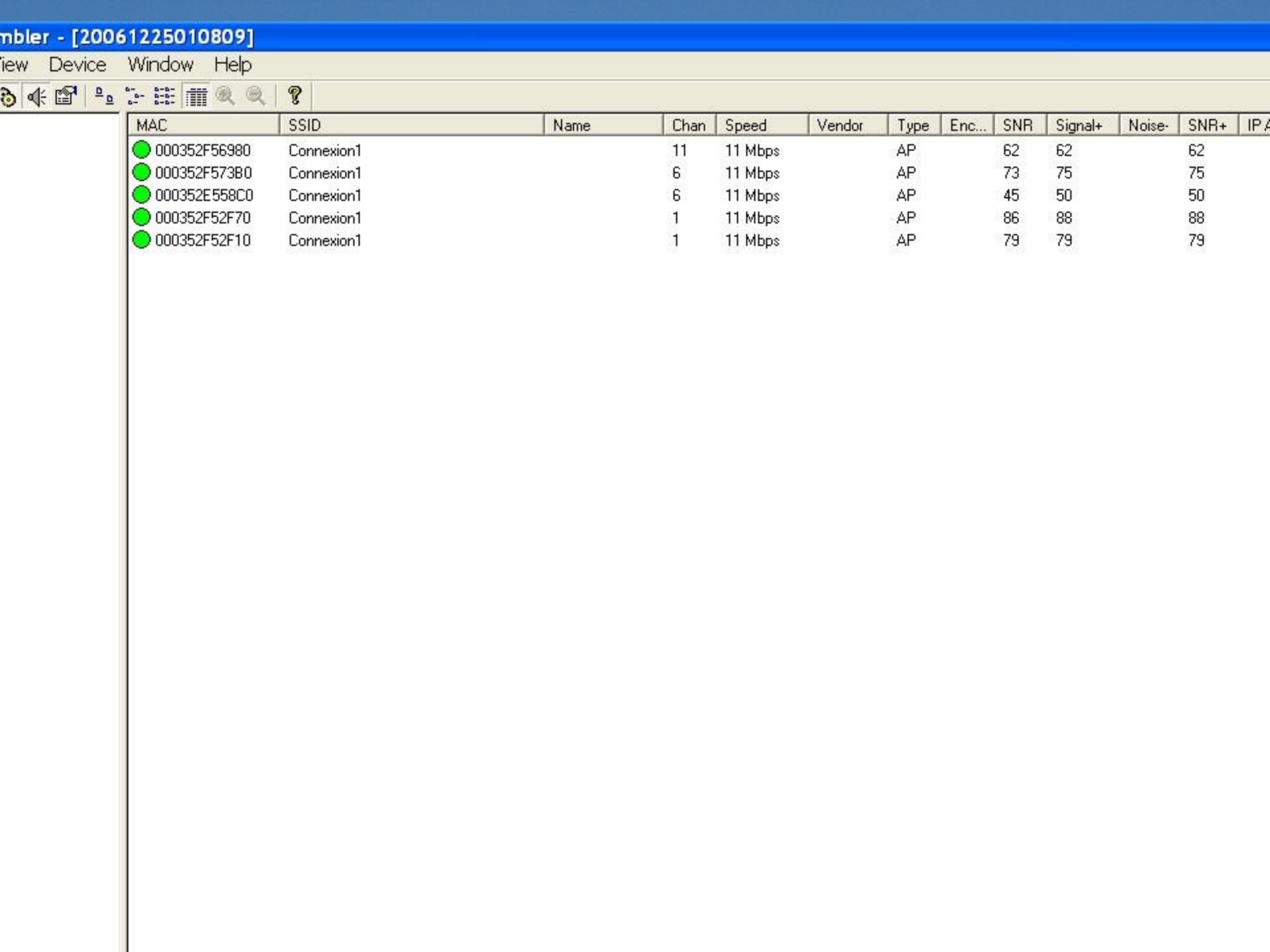
For a long time, Lufthansa was not only the first, but also the only CBB partner worldwide. With 62 long-range aircraft equipped with the system, the airline today has the largest Internet-capable fleet. Lufthansa FlyNet started regular operations on 17th May 2004 on board flight LH 452 from Munich to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

Get Internet and Live Global TV!

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

connexion by Boeing™ Internet

A STAR ALLIANCE MEMB


mbler - [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

BROADBAND Reports.com login

Home | Find Service | Reviews | News | FAQs | Forums | Tools

Intro | FAQ | Tweak Test | **Speed Tests** | Line Quality | Line Monitor | Whois | Doctor Ping | »»

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>
```

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

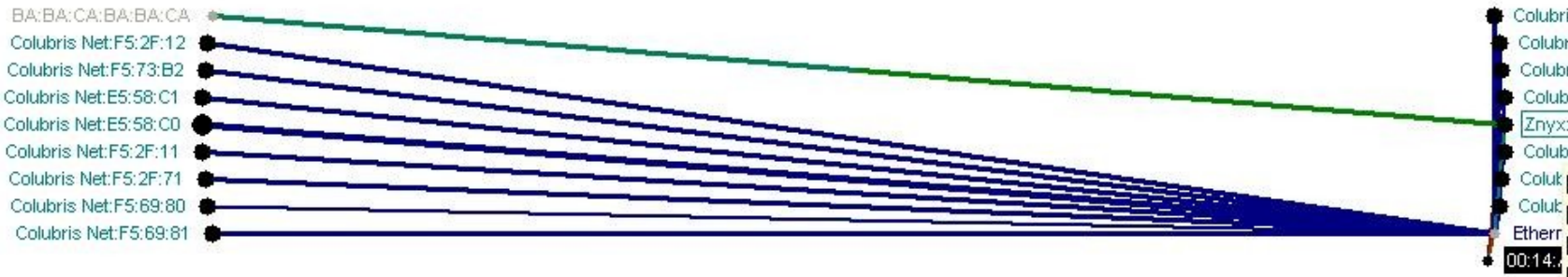
Online 5,201,228 Users Online

```
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	Memory usage:	5%
Packets filtered:	6,264	Filter state:	Accept all packets

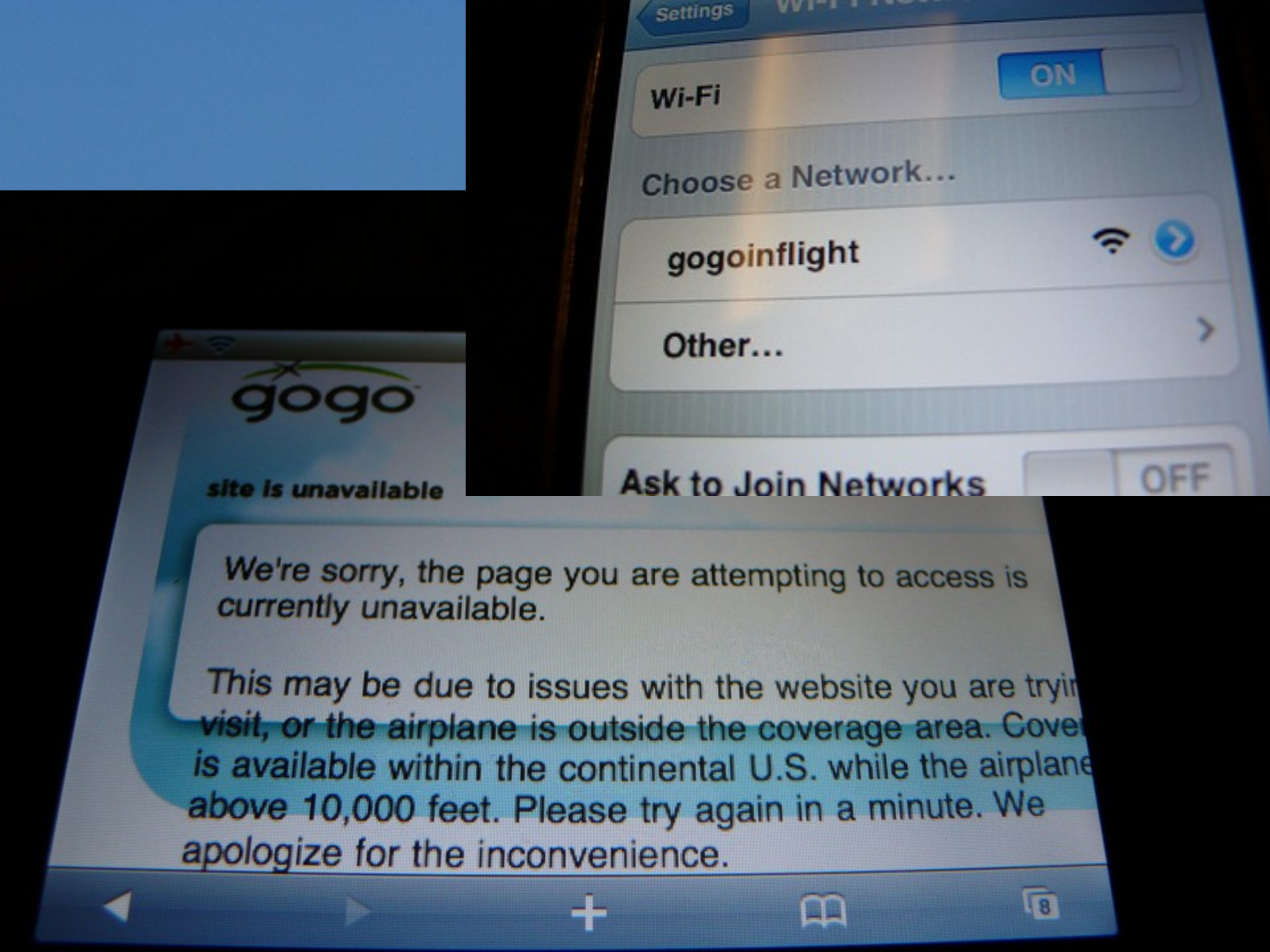


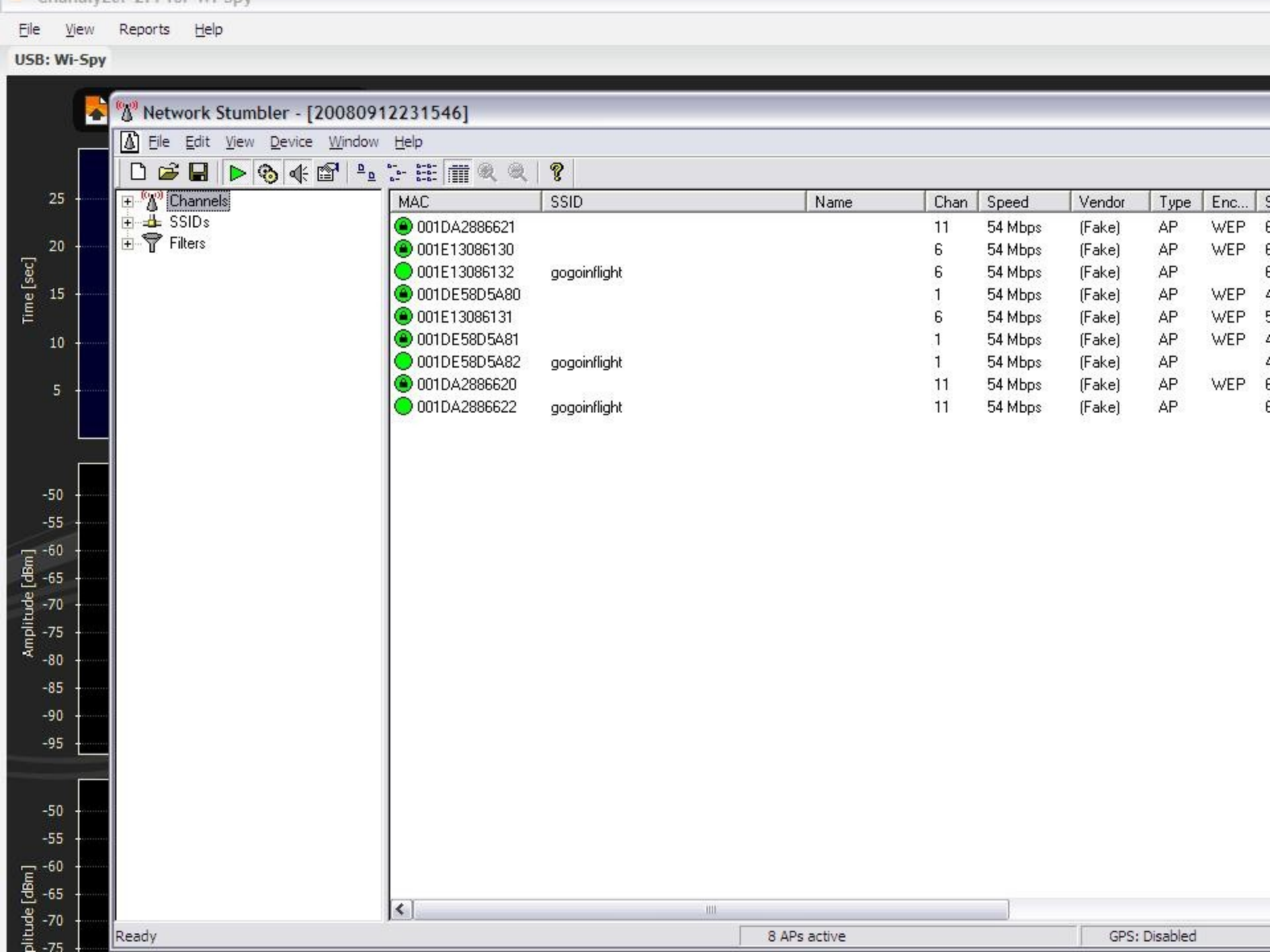
Node: Znyx:92:4C
Protocols: 802.11
Packets Sent: 3
Packets Received
Bytes Sent: 43,
Bytes Received:
Identities:
10.21.4.41,
138.110.34.94,
24.217.86.227,
24.44.234.158,
64.46.12.60,
66.56.63.96,
68.106.117.247
69.209.120.193
74.66.230.207,

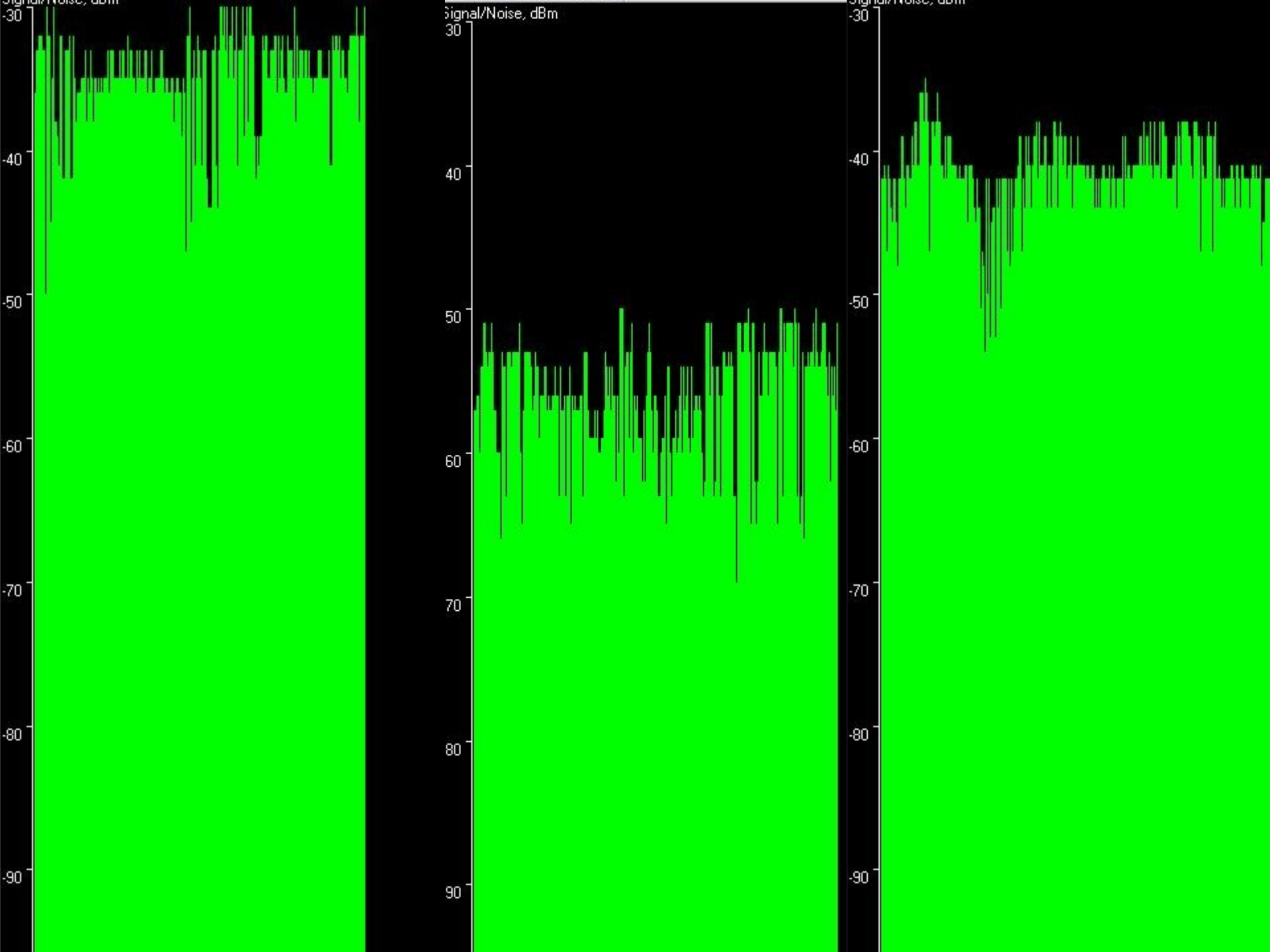
so...

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


OLIVE GARDEN
TONY MORA
ARGENT
VOTE!
Antioxidants. Disguised in delicious tea form.
NESTEA
ICED TEA
BILLY ELLIOT
SONS OF ANARCHY
AFTER STORM
JPM 41.17
KFT
0.59
CHRW
RIGHT LANE MUST TURN RIGHT
W 45 ST
GRAY LINE

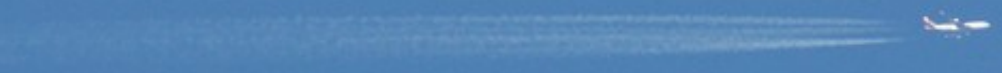

Settings
Wi-Fi
ON
Choose a Network...
gogoinflight
Other...
Ask to Join Networks
OFF
gogo
site is unavailable
We're sorry, the page you are attempting to access is currently unavailable.
This may be due to issues with the website you are tryi
visit, or the airplane is outside the coverage area. Cove
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.
8


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
Time [sec]
25 20 15 10 5
Amplitude [dBm]
-50 -55 -60 -65 -70 -75 -80 -85 -90 -95
Ready
8 APs active
GPS: Disabled


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


...with computers!

wi-spy break



gts 12

cket: 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)

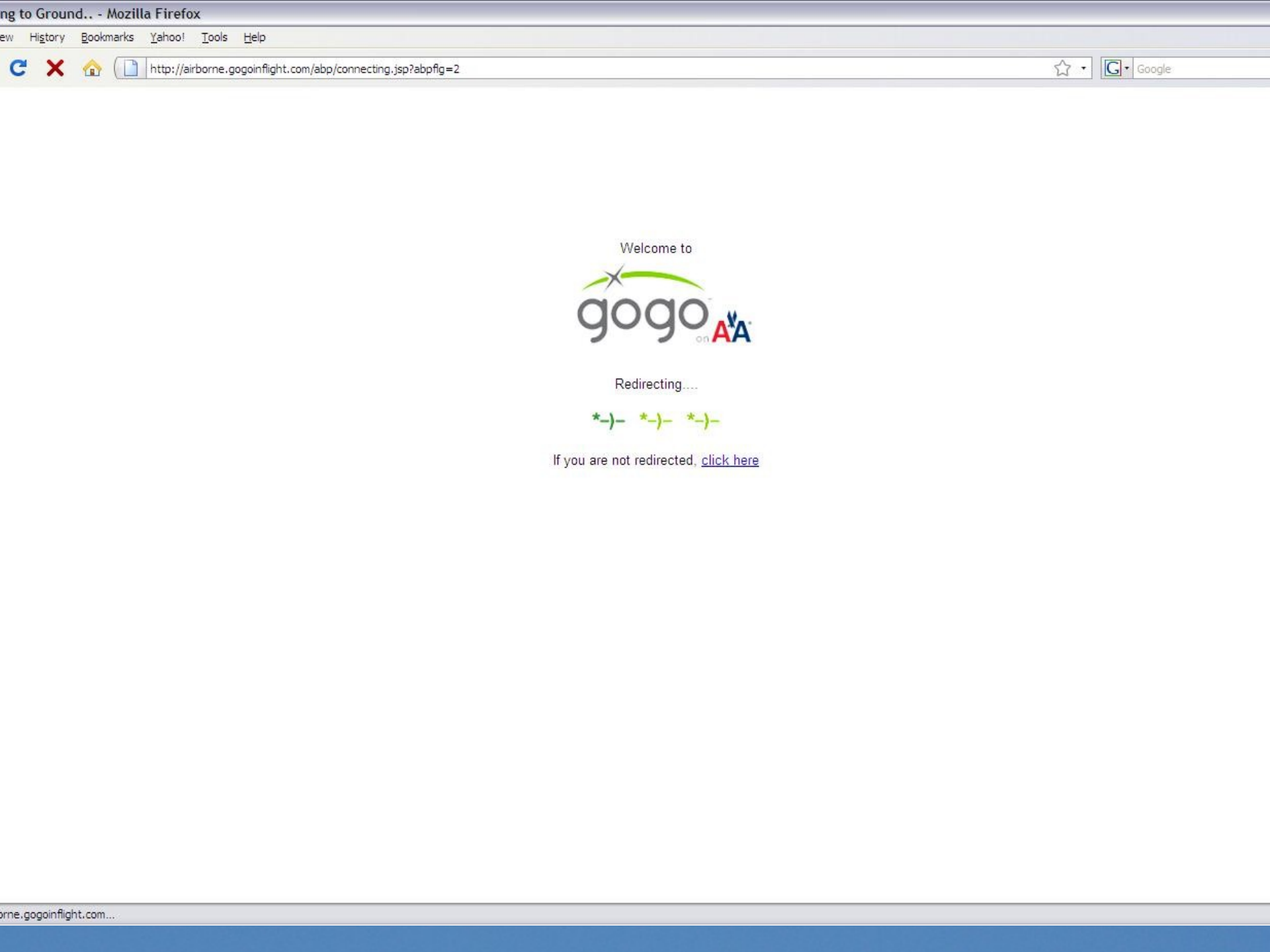
Vendor Specific
- Element ID: 221 *Vendor Specific - Cisco*
- Length: 5
- OUI: 00-40-96
- Version: 3
- CCX Version: 4

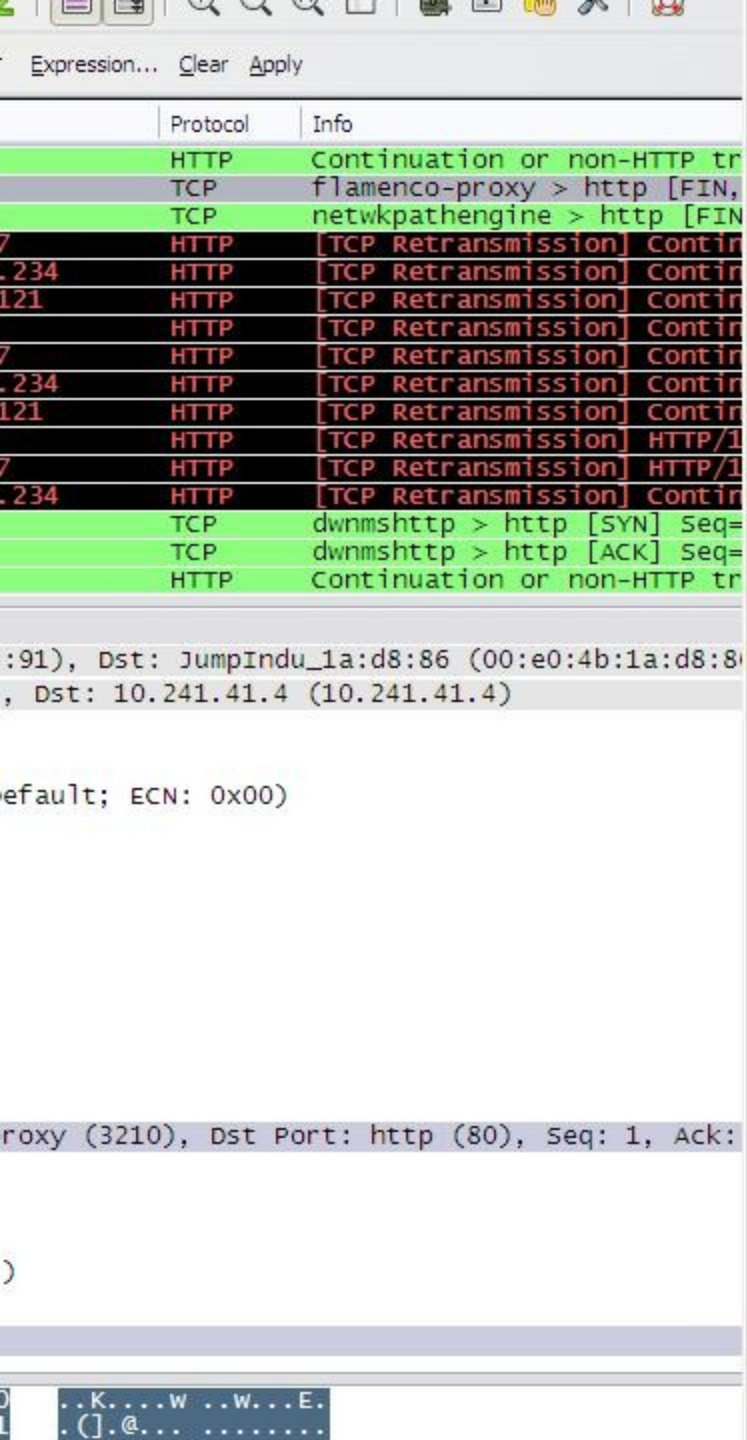
Vendor Specific
- Element ID: 221 *Vendor Specific - Cisco*
- Length: 5
- OUI: 00-40-96

```
: 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 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
orne.gogoinflight.com...




```
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 (00:77:aa:de:77:91), Dst: 00:e0:4b:1a:d8:86 (00:e0:4b:1a:d8:86)
⊟ Internet Protocol, Src: 172.30.1.179 (172.30.1.179), Dst: 10.241.41.4 (10.241.41.4)
    Version: 4
    Header length: 20 bytes
  ⊞ Differentiated Services Field: 0x00 (DSCP 0x00: Default; ECN: 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)
    Acknowledgement number: 2    (relative ack 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

ns

Password

Register

ost password?

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!

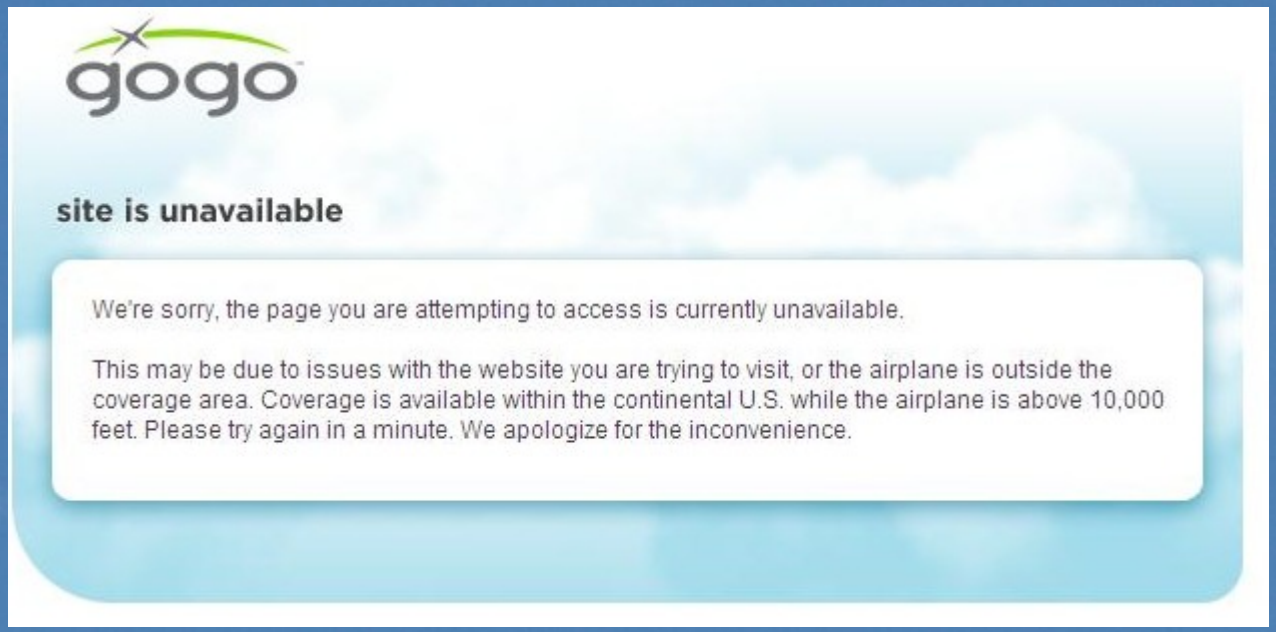
IP Address Location: , United States us flag
Please see the poll for map accuracy.

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.
```

```
g www.uol.com.br

g 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.

tatistics for 200.98.249.120:
kets: Sent = 4, Received = 2, Lost = 2 (50% loss),
imate round trip times in milli-seconds:
imum = 601ms, Maximum = 842ms, Average = 721ms

g pwn3d.com

g 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

aceroute 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
  * * *
  * * *
  * *
```

gts 12

```
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

Add video or write a message here for your friends to see

GMT-7)

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nter the phone number in United States or Skype Name

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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

http://www.speakeasy.net/speedtest/

Load Error | Gogo Inflight Internet | What Is My IP Address? - IP Address L... | Speakeasy - Speed Test

Account

speakeasy

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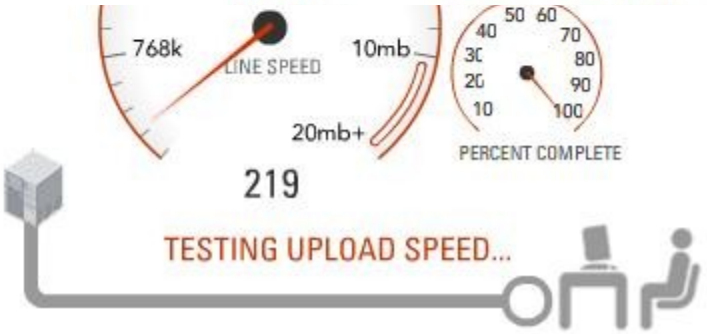
NEW YORK CITY, NY
BEGIN THE SPEED TEST

WASHINGTON, DC
BEGIN THE SPEED TEST



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BEGIN THE SPEED TEST

WASHINGTON, DC
BEGIN THE SPEED TEST

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LEARN MORE ABOUT BROADBAND SPEED

okay, but, how about security?

lessons learned

how about the service in Brazil?

major differences

gts 12

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

next?

- try the other airlines/ services
- find out more about the "internets"
- >-)

http://ysts.org

obrigado!!!

le(at)atelophobia.net