

1 ELECTRONIC FRONTIER FOUNDATION  
CINDY COHN (145997)  
2 cindy@eff.org  
LEE TIEN (148216)  
3 tien@eff.org  
KURT OPSAHL (191303)  
4 kurt@eff.org  
KEVIN S. BANKSTON (217026)  
5 bankston@eff.org  
CORYNNE MCSHERRY (221504)  
6 corynne@eff.org  
JAMES S. TYRE (083117)  
7 jstyre@eff.org  
454 Shotwell Street  
8 San Francisco, CA 94110  
Telephone: 415/436-9333  
9 415/436-9993 (fax)

10 TRABER & VOORHEES  
BERT VOORHEES (137623)  
11 bv@tvlegal.com  
THERESA M. TRABER (116305)  
12 tmt@tvlegal.com  
128 North Fair Oaks Avenue, Suite 204  
13 Pasadena, CA 91103  
Telephone: 626/585-9611  
14 626/ 577-7079 (fax)

LAW OFFICE OF RICHARD R. WIEBE  
RICHARD R. WIEBE (121156)  
wiebe@pacbell.net  
425 California Street, Suite 2025  
San Francisco, CA 94104  
Telephone: 415/433-3200  
415/433-6382 (fax)

15 Attorneys for Plaintiffs

16 [Additional counsel appear on signature page.]

17

18

UNITED STATES DISTRICT COURT

19

FOR THE NORTHERN DISTRICT OF CALIFORNIA

20

TASH HEPTING, GREGORY HICKS,  
CAROLYN JEWEL and ERIK KNUTZEN, on  
21 Behalf of Themselves and All Others Similarly  
22 Situated,,

23 Plaintiffs,

24

v.

25

AT&T CORP., et al.,

26

Defendants.

No. C-06-0672-VRW

CLASS ACTION

**DECLARATION OF J. SCOTT MARCUS  
IN SUPPORT OF PLAINTIFFS' MOTION  
FOR PRELIMINARY INJUNCTION**

Date: June 8, 2006  
Courtroom: 6, 17th Floor  
Judge: Hon. Vaughn Walker

27

FILED UNDER SEAL PURSUANT TO CIVIL LOCAL RULE 79-5

28

C-06-0672-VRW

DECLARATION OF J. SCOTT MARCUS IN SUPPORT OF  
PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION

**TABLE OF CONTENTS**

1

2 QUALIFICATIONS..... 2

3 BACKGROUND –DOCUMENTS REVIEWED ..... 6

4 OVERVIEW AND SUMMARY OF PRINCIPAL OPINIONS ..... 8

5 BACKGROUND – FIBER OPTICS..... 11

6 SUMMARY OF THE ARCHITECTURE OF THE SG3 CONFIGURATION AND ITS  
7 DATA CONNECTIVITY ..... 14

8 CAPABILITIES OF THE SAN FRANCISCO SG3 CONFIGURATION..... 18

9 TRAFFIC CAPTURED AT SAN FRANCISCO SG3 ROOM..... 22

10 NUMBER OF LOCATIONS ..... 27

11 TRAFFIC CAPTURED BY MULTIPLE SG3 ROOMS ..... 28

12 ALTERNATIVE REASONS WHY AT&T MIGHT HAVE DEPLOYED THE SG3  
13 CONFIGURATIONS ..... 30

14 AT&T’S FINANCIAL CONDITION IN 2003..... 33

15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

1 **LIST OF EXHIBITS**

- 2 A Curriculum vitae of J. Scott Marcus
- 3 B Eric Lichtblau and James Risen, Spy Agency Mined Vast Data Trove, Officials Report, The  
4 New York Times, Dec. 24, 2005
- 5 C Barton Gellman, Dafna Linzer and Carol D. Leonnig, Surveillance Net Yields Few  
6 Suspects: NSA's Hunt for Terrorists Scrutinizes Thousands of Americans, but Most Are  
7 Later Cleared, Washington Post, Feb. 5, 2006
- 8 D Marcus et al, "Internet interconnection and the off-net-cost pricing principle"
- 9 E Marcus, "Call Termination Fees: The U.S. in global perspective"
- 10 F Marcus, "What Rules for IP-enabled NGNs?"
- 11 G "Evolving Core Capabilities of the Internet"
- 12 H <http://en.wikipedia.org/wiki/Modulation>
- 13 I <http://en.wikipedia.org/wiki/Attenuation>
- 14 J <http://en.wikipedia.org/wiki/Decibel>
- 15 K ADC brochure (Value-Added Module System: LGX Compatible)
- 16 L <http://www.narus.com/solutions/IPanalysis.html>
- 17 M <http://www.ist-scampi.org/events/workshop-2004/poell.pdf>
- 18 N [http://www-  
19 03.ibm.com/industries/telecom/doc/content/bin/tc\\_using\\_narus\\_ip\\_sept\\_2005.pdf](http://www-03.ibm.com/industries/telecom/doc/content/bin/tc_using_narus_ip_sept_2005.pdf)
- 20 O <http://www.narus.com/platform/index.html>
- 21 P <http://www.narus.com/solutions/NarusForensics.html>
- 22 Q In the Matter of AT&T Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP  
23 Telephony Services are Exempt from Access Charges, FCC WC Docket 02-361, Petition of  
24 AT&T
- 25 R Report of the NRIC V Interoperability Focus Group, "Service Provider Interconnection for  
26 Internet Protocol Best Effort Service"
- 27 S Ch. 14, Marcus, Designing Wide Area Networks and Internetworks: A Practical Guide  
28 (1999)
- T <http://www.broadbandweek.com/newsdirect/0208/direct020802.htm>, August 2, 2002
- U <http://www.narus.com/solutions/IPsecurity.html>
- V <http://www.fcw.com/article90916-09-26-05-Print>
- W <http://www.att.com/news/2004/03/22-12972>

1 X [http://www.eweek.com/print\\_article2/0,1217,a=139716,00.asp](http://www.eweek.com/print_article2/0,1217,a=139716,00.asp)

2 Y Lehman Brothers analysis of AT&T (Jan. 24, 2003)

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

1 I, J. Scott Marcus, declare under the penalty of perjury that the following is true and  
2 correct:

3 1. The Electronic Frontier Foundation (EFF) has asked me to render an expert opinion<sup>1</sup>  
4 on the implications of a declaration by Mark Klein ("Klein Declaration"), and on a series of  
5 documents alleged to have been generated by AT&T (Exhibits A, B and C to the Klein  
6 Declaration) ("Klein Exhibits"), in conjunction with Plaintiffs' Motion for a Preliminary Injunction.

7 2. I am strongly of the opinion that the Klein Exhibits are authentic, and I find Mr.  
8 Klein's declaration to be fully consistent with the documents and entirely plausible.

9 3. The EFF specifically requested that I assess whether the program described in the  
10 Klein Declaration and Klein Exhibits is consistent with media reports about a program authorized  
11 by the President of the United States, under which the National Security Agency ("NSA") engages  
12 in warrantless surveillance of communications of people inside the United States ("the Program").

13 4. I was asked to review the following two news articles: Eric Lichtblau and James  
14 Risen, *Spy Agency Mined Vast Data Trove, Officials Report*, The New York Times, Dec. 24, 2005  
15 (attached as Exhibit B), and Barton Gellman, Dafna Linzer and Carol D. Leonnig, *Surveillance Net*  
16 *Yields Few Suspects: NSA's Hunt for Terrorists Scrutinizes Thousands of Americans, but Most Are*  
17 *Later Cleared*, Washington Post, Feb. 5, 2006 at A01 (attached as Exhibit C).

18 5. I was asked to focus on the following claims in these two news articles, with respect  
19 to AT&T Corp.: that major U.S. telecommunications companies are assisting the government in  
20 carrying out the Program; that these companies have given the government direct access to  
21 telecommunications facilities physically located on U.S. soil; that by virtue of this access, the  
22 government can now monitor both domestic and international communications of persons in the  
23 United States; and that surveillance under the Program is conducted in several stages, with the  
24 early stages being computer-controlled collection and analysis of communications and the last  
25 stage being actual human scrutiny.

26 6. In the sections that follow, I present my qualifications, and provide an overview of  
27

28 <sup>1</sup> Attached hereto as Exhibit A is my curriculum vitae.