

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
HONORABLE DAVID O. CARTER, JUDGE PRESIDING

- - - - -

ECHOSTAR SATELLITE CORPORATION,)	
et al.,)	
)	
Plaintiffs,)	
)	
vs.)	No. SACV 03-950 DOC
)	Day 13, Volume II
NDS GROUP PLC, et al.,)	
)	
Defendants.)	
_____)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS
Jury Trial
Santa Ana, California
Wednesday, April 30, 2008

Debbie Gale, CSR 9472, RPR
Federal Official Court Reporter
United States District Court
411 West 4th Street, Room 1-053
Santa Ana, California 92701
(714) 558-8141

EchoStar 2008-04-30 D13V2

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By Mr. Eberhart		37		

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1 SANTA ANA, CALIFORNIA, WEDNESDAY, APRIL 30, 2008

2 Day 13, Volume II

3 (10:16 a.m.)

4 (In the presence of the jury.)

5 THE COURT: All right. The jury's present. All
6 counsel are present.

7 And, Counsel, if you would like to call your next
8 witness, please.

9 MR. SNYDER: Defendants call by video Peter
10 Kuykendall.

11 THE COURT: Once again, the court reporter, by
12 stipulation of counsel, need not take verbatim the
13 transcript of the video; but it will be included in the
14 running daily.

15 Thank you. Counsel, if you would like to play
16 that video.

17 MR. SNYDER: Thank you.

18 (Excerpt of video deposition of Peter
19 Kuykendall, transcript herein incorporated as
20 provided by defense counsel, played as follows:)

21 KUYKENDALL VIDEO CLIPS

22 Page Range: 005:25-6:6

23 5:25 Q. Good morning, Mr. Kuykendall.

24 6: 6

25 6: 1 A. Good morning.

1 6: 2 Q. First, am I pronouncing your name correctly?

2 6: 3 A. Yes.

3 6: 4 Q. Good. Can you please state your full name for
4 6: 5 the record.

5 6: 6 A. Peter Owen, O-w-e-n, Kuykendall.

6 Page Range: 014:12-15:7

7 14:12 Q. (BY MR. DILGER) And before you worked with
8 14:13 Comcast, where were you employed?

9 14:14 A. At NagraStar.

10 14:15 Q. For how long were you employed with NagraStar?

11 14:16 A. I started in 2002 and left in March of 2006.

12 14:17 Q. Why did you leave NagraStar?

13 14:18 A. I had a better opportunity at Comcast.

14 14:19 Q. Why did you consider the Comcast opportunity a
15 14:20 better one?

16 14:21 A. It was a better overall compensation package.

17 14:22 Q. So money?

18 14:23 A. Money, opportunity for advancement.

19 14:24 Q. And what was your role while at NagraStar?

20 14:25 A. I had a couple of roles. I started out as a

21 15: 15

22 15: 1 set-top box engineer, and in that role I was a --

23 well, I

24 15: 2 was a set-top box engineer. I then transitioned to

25 doing

1 15: 3 that half-time and working for J.J. Gee in the field
2 15: 4 security department. So I was half-time for J.J. and
3 15: 5 half-time set-top box; and after some period of time,
4 I
5 15: 6 transitioned fully to field security, and we hired
6 15: 7 someone else to do the set-top box engineering.

7 Page Range: 015:20-16:6

8 15:20 Q. So from the time you arrived at NagraStar until
9 15:21 early 2003, you did no field security work; is that
10 15:22 right?

11 15:23 A. I -- I did some initially. I -- my initial
12 15:24 employment with NagraStar was in, I think, February or
13 15:25 March of 2002 as a part-time contractor doing field --
14 16: 16

15 16: 1 for field security for J.J. up until late May of that
16 16: 2 year.

17 16: 3 Q. And then in late May, you began as a set-top
18 16: 4 box engineer?

19 16: 5 A. Yes, as a full-time regular employee at that
20 16: 6 time.

21 Page Range: 016:16-17:12

22 16:16 Q. Yeah. My understanding is that from late May
23 16:17 to early 2003, you were a set-top box engineer; is
24 that
25 16:18 correct?

1 16:19 A. Yes. That's correct.

2 16:20 Q. And as a set-top box engineer, you did no field
3 16:21 security work, is that correct, during that time
4 frame?

5 16:22 A. My recollection is that that is correct.

6 16:23 Q. And then in early 2003, you were given a
7 16:24 role -- an additional role of working with J.J. Gee in
8 16:25 the field security department?

9 17: 17

10 17: 1 A. Yes.

11 17: 2 Q. And that you held that for some portion of time
12 17: 3 of six to 12 months?

13 17: 4 A. As a half-time position, yes.

14 17: 5 Q. And then after that six to 12 months period was
15 17: 6 over, you transitioned to full-time field security
16 work?

17 17: 7 A. Yes.

18 17: 8 Q. And then is it correct that you held the
19 17: 9 full-time field security work position until your
20 17:10 departure from NagraStar?

21 17:11 MR. FERGUSON: Form, foundation.

22 17:12 A. Yes.

23 Page Range: 019:18-20:3

24 19:18 Did your set-top box responsibilities change

25 19:19 after you started also doing field security work?

1 19:20 MR. FERGUSON: Form.

2 19:21 A. Well, the role changed over time.

3 19:22 Q. (BY MR. DILGER) In what way?

4 19:23 MR. FERGUSON: Form.

5 19:24 A. As -- after I had worked there a little while

6 19:25 in the set-top box role, I started assisting on an

7 effort

8 20: 20

9 20: 1 to design a new generation -- some specifications for

10 a

11 20: 2 new generation of set-top boxes to -- that is intended

12 to

13 20: 3 be more secure.

14 Page Range: 020:16-20:25

15 20:16 Q. (BY MR. DILGER) Were there any changes being

16 20:17 contemplated at that time to the card used in

17 conjunction

18 20:18 with the set-top box?

19 20:19 MR. FERGUSON: Form, foundation.

20 20:20 A. When I arrived at NagraStar, they were already

21 20:21 in the process of getting ready to deploy a new card.

22 20:22 Q. (BY MR. DILGER) This is the Nagra 2 card?

23 20:23 MR. FERGUSON: Form.

24 20:24 A. Our name for it was Aladdin. I'm not familiar

25 20:25 with the "Nagra 2" terminology.

1 Page Range: 023:16-24:5

2 23:16 Q. Okay. You indicated that you transitioned some
3 23:17 of your work over to field security work. What is your
4 23:18 definition of field security work?

5 23:19 A. J.J. Gee was the manager of the field security
6 23:20 department at that time, so I worked at his direction,
7 23:21 and my definition would be whatever he directed me to
8 do
9 23:22 would be field security work.

10 23:23 Q. And what did Mr. Gee direct you to do during
11 23:24 your time working for him? If you'd like, you can
12 23:25 confine your answer to broad terms. We can be more
13 24: 24

14 24: 1 specific later.

15 24: 2 A. One activity was Internet research as to piracy
16 24: 3 activities. Another activity was analysis of evidence.
17 24: 4 Another activity was analysis of commercially
18 available
19 24: 5 piracy devices.

20 Page Range: 078:4-78:24

21 78: 4 Q. Do you know an individual named Christopher
22 78: 5 Tarnovsky?

23 78: 6 MR. FERGUSON: Foundation.

24 78: 7 A. I know of him.

25 78: 8 Q. (BY MR. DILGER) What do you know of

1 78: 9 Mr. Tarnovsky?

2 78:10 A. My understanding is that he is alleged to be

3 78:11 some sort of double agent, the interface between NDS
4 and

5 78:12 the pirate world.

6 78:13 Q. Do you have any information connecting

7 78:14 Mr. Tarnovsky to EchoStar piracy?

8 78:15 A. I don't.

9 78:16 Q. Do you know anyone who does have that

10 78:17 information?

11 78:18 MR. FERGUSON: Foundation, calls for

12 78:19 speculation.

13 78:20 A. Not personally, no.

14 78:21 Q. (BY MR. DILGER) What do you mean by "Not

15 78:22 personally"?

16 78:23 A. I am not aware of anyone who has some sort of

17 78:24 solid proof.

18 Page Range: 082:11-82:19

19 82:11 Q. (BY MR. DILGER) Okay. Do you have any

20 82:12 evidence that connects any EchoStar piracy to the
21 Nipper

22 82:13 posting?

23 82:14 MR. FERGUSON: Foundation.

24 82:15 A. None that I can recall.

25 82:16 Q. (BY MR. DILGER) Do you have any evidence that

1 82:17 connects Christopher Tarnovsky to the Nipper posting?

2 82:18 MR. FERGUSON: Foundation.

3 82:19 A. None that I can recall.

4 Page Range: 085:7-85:16

5 85: 7 Q. (BY MR. DILGER) I can -- I'll restate it. Do

6 85: 8 you recall any evidence -- seeing any evidence that

7 85: 9 suggested a connection between NDS and EchoStar

8 piracy?

9 85:10 MR. FERGUSON: Same objection.

10 85:11 A. No.

11 85:12 Q. (BY MR. DILGER) So, to your knowledge, while

12 85:13 at NagraStar, you were exposed to no evidence that

13 85:14 suggested NDS was involved in EchoStar piracy?

14 85:15 MR. FERGUSON: Foundation.

15 85:16 A. Not that I can recall.

16 Page Range: 202:7-203:20

17 202: 7 Q. Earlier, we talked about the Nipper Clauz

18 202: 8 posting, and you testified that you couldn't recall

19 202: 9 anything about that posting; is that correct?

20 202:10 A. Yes.

21 202:11 Q. So it's fair to say that you have no evidence

22 202:12 connecting Mr. Tarnovsky to that posting; is that

23 202:13 correct?

24 202:14 MR. FERGUSON: Foundation.

25 202:15 A. None that I can recall.

1 202:16 Q. (BY MR. DILGER) And you have no evidence
2 202:17 connecting NDS to that posting, either; is that fair
3 to

4 202:18 say?

5 202:19 MR. FERGUSON: Foundation.

6 202:20 A. Yes. That's correct.

7 202:21 Q. (BY MR. DILGER) Is it fair to say that you

8 202:22 have no evidence connecting Mr. Tarnovsky to any
9 posting

10 202:23 of EchoStar-related code?

11 202:24 MR. FERGUSON: Same objection.

12 202:25 A. Yes.

13 203: 203

14 203: 1 Q. (BY MR. DILGER) Is it fair to say that you

15 203: 2 have no evidence connecting NDS to any posting of

16 203: 3 EchoStar-related code?

17 203: 4 MR. FERGUSON: Same objection.

18 203: 5 A. Yes.

19 203: 6 Q. (BY MR. DILGER) And it's true that you have no

20 203: 7 evidence connecting Mr. Tarnovsky to any piracy of

21 203: 8 EchoStar's signal?

22 203: 9 MR. FERGUSON: Same objection.

23 203:10 A. Yes.

24 203:11 Q. (BY MR. DILGER) And it's correct that you have

25 203:12 no evidence connecting NDS in any fashion to any

1 piracy

2 203:13 of EchoStar's signal?

3 203:14 MR. FERGUSON: Foundation.

4 203:15 A. Yes.

5 203:16 Q. (BY MR. DILGER) And it's fair to say that you

6 203:17 have no evidence connecting the Nipper Clauz posting

7 and

8 203:18 any subsequent piracy of EchoStar's system?

9 203:19 MR. FERGUSON: Foundation.

10 203:20 A. None that I can recall.

11 Page Range: 030:21-31:15

12 30:21 Q. Have you heard of a group operating out of

13 30:22 Barrie, Ontario, a pirate group for EchoStar piracy

14 30:23 operating out of Barrie, Ontario?

15 30:24 A. I recall hearing that city name, Barrie,

16 30:25 Ontario, in the context of piracy.

17 31: 31

18 31: 1 Q. What have you heard about Barrie, Ontario?

19 31: 2 A. Just that. I just have a recollection of some

20 31: 3 discussions around Barrie, Ontario.

21 31: 4 Q. Do you recall who these discussions were with?

22 31: 5 A. I believe it would be J.J. Gee. That's my

23 31: 6 recollection.

24 31: 7 Q. Do you recall when you had this discussion?

25 31: 8 A. No.

1 31: 9 Q. Were you asked to monitor any piracy out of
2 31:10 Barrie, Ontario?

3 31:11 A. I don't recall.

4 31:12 Q. Were you asked to do any investigation
5 31:13 whatsoever about a group operating out of Barrie,
6 31:14 Ontario?

7 31:15 A. I'm sorry. I don't recall.

8 Page Range: 074:17-75:23

9 74:17 Q. (BY MR. DILGER) I'm handing what's been
10 74:18 previously marked Exhibit 206. I'd like you to take a
11 74:19 look at that document, if you could.

12 74:20 A. Okay.

13 74:21 (The deponent perused the exhibit.)

14 74:22 Q. If you go to the page listed ESC 0080120, it's
15 74:23 page 5 of that e-mail, midway through the e-mail page,
16 it

17 74:24 says, "I wIll dUmP ALl vErSiOns oF tHe WeSt CoDe. LoOk
18 74:25 FoR iT hErE! Nipper Clauz 00," which I read to be
19 Nipper

20 75: 75

21 75: 1 Clauz 2000. Do you see that?

22 75: 2 A. I see it.

23 75: 3 Q. Are you familiar with this posting?

24 75: 4 MR. FERGUSON: During what time period? Any

25 75: 5 time period?

1 75: 6 Q. (BY MR. DILGER) Are you familiar with this
2 75: 7 posting right now?

3 75: 8 A. No. It doesn't ring a bell to me now, but it
4 75: 9 appears to be a genuine e-mail that I sent.

5 75:10 Q. It says here that "I also did a USENET search
6 75:11 on the poster (Dr7_al@my-deja.com) and came up with a
7 75:12 couple of hits that returned the same thing (see
8 below)."

9 75:13 Do you see that?

10 75:14 A. Yeah.

11 75:15 Q. It says, "That currently resolves to Ontario,
12 75:16 Canada." Do you recall doing a USENET search on the
13 75:17 poster of this?

14 75:18 A. Not this specific one.

15 75:19 Q. You don't recall doing this?

16 75:20 A. No.

17 75:21 Q. Were you ever asked to investigate the -- this
18 75:22 Nipper posting, to your recollection?

19 75:23 A. Not that I recall.

20 Page Range: 149:17-150:8

21 149:17 I'm handing you what's been marked Exhibit 685.

22 149:18 Take a moment to familiarize yourself with this
23 document.

24 149:19 A. Okay.

25 149:20 (The deponent perused the exhibit.)

1 149:21 Okay.

2 149:22 Q. It says, "Hello, gentlemen," and I'm looking at

3 149:23 midway through the second page. "JJ has asked me to

4 send

5 149:24 this document to you for immediate review. I'm sorry

6 to

7 149:25 drop this on you on such short notice. JJ says we

8 need

9 150: 150

10 150: 1 to have your comments on it today, because our

11 customer's

12 150: 2 need is urgent. Thanks, Peter Kuykendall."

13 150: 3 Do you see that?

14 150: 4 A. Yes.

15 150: 5 Q. Is that a message from you to Mr. Kudelski,

16 150: 6 Mr. Valsecchi and Mr. Nicholas?

17 150: 7 A. Yes. The second man's name is Patrick

18 150: 8 Valsecchi.

19 Page Range: 135:2-137:19

20 135: 2 Q. (BY MR. DILGER) I'm handing you what's been

21 135: 3 marked Exhibit 683. It appears to be an e-mail from

22 135: 4 Henri Kudelski to Dominique Bongard, Joel Conus,

23 Cedric

24 135: 5 Groux, Nicholas Christophe, and Alan Guggenheim, and

25 it's

1 135: 6 in French, and then Alan Guggenheim forwards it --

2 135: 7 forwards it on to you. Do you see that?

3 135: 8 A. Yes.

4 135: 9 Q. It was dated December 17, 2002. Do you see

5 135:10 that?

6 135:11 A. Yes.

7 135:12 Q. And it appears to be instructions for setting

8 135:13 up the security lab in Denver. You see that?

9 135:14 A. Yes.

10 135:15 Q. And it asks you to set up a list of items to

11 135:16 set up in the security lab; is that correct?

12 135:17 A. Yes.

13 135:18 Q. And it also lists functions that you were to

14 135:19 carry out as part of your job. Do you see that?

15 135:20 A. Yes.

16 135:21 Q. Based on your testimony today, at Point 1,

17 135:22 "Evidence analysis reports," it appears that you

18 carried

19 135:23 out that function; is that correct?

20 135:24 A. Yes.

21 135:25 Q. Point No. 2, "Set up and maintain the security

22 136: 136

23 136: 1 lab with EchoStar, one each of the main devices,"

24 what is

25 136: 2 that?

1 136: 3 A. Alan was referring to the devices that 80
2 136: 4 percent of the pirates use to steal the signal.

3 136: 5 Q. And did you set up the lab with each of the
4 136: 6 main devices for EchoStar piracy?

5 136: 7 MR. FERGUSON: Calls for -- calls for
6 136: 8 speculation.

7 136: 9 A. No. We -- I never set up a lab, per se. I
8 136:10 made a few efforts in that direction but never did
9 get
10 136:11 the lab set up.

11 136:12 Q. (BY MR. DILGER) So this never happened, you
12 136:13 never had a security lab set up in Denver?

13 136:14 A. I never did, no.

14 136:15 Q. Okay. And it says "Bell ExpressVu, 1 to 3
15 136:16 devices most prevalent." Did you set up any devices
16 most
17 136:17 prevalent?

18 136:18 MR. FERGUSON: Calls for speculation.

19 136:19 A. No.

20 136:20 Q. (BY MR. DILGER) So you never monitored the
21 136:21 feed, the Bell ExpressVu feed?

22 136:22 A. I would sporadically. If an interesting hack
23 136:23 or interesting device came along, I would test that,
24 but

25 136:24 it was not a routine ongoing lab that sort of daily

1 136:25 monitored that sort of thing.

2 137: 137

3 137: 1 Q. And you never monitored the EchoStar feed using

4 137: 2 pirate devices?

5 137: 3 A. Well, again, it was in the same mode as Bell

6 137: 4 ExpressVu. It was very sporadic. If something new and

7 137: 5 interesting would come along, I would do it.

8 137: 6 Q. And then below -- on the third, it says, "DTV,

9 137: 7 1 device (the most popular)."

10 137: 8 What is Mr. Guggenheim requesting that you do

11 137: 9 here?

12 137:10 MR. FERGUSON: Foundation, calls for

13 137:11 speculation?

14 137:12 A. My understanding was a DirectTV device.

15 137:13 Q. (BY MR. DILGER) Pirate device?

16 137:14 A. Yes.

17 137:15 Q. So Mr. Guggenheim was asking you to set up a

18 137:16 pirate device for DirectTV to monitor the DirectTV feed

19 137:17 using -- hacking into the DirectTV feed?

20 137:18 MR. FERGUSON: Same objection.

21 137:19 A. Yes.

22 Page Range: 203:23-205:15

23 203:23 Do you know what the DN-10 hack is?

24 203:24 MR. FERGUSON: Foundation.

25 203:25 A. Yes. The -- the symbol DN-10 is sort of hacker

1 204: 204

2 204: 1 shorthand for the so-called ROM10 version of the
3 DNASP002

4 204: 2 Smartcard.

5 204: 3 Q. (BY MR. DILGER) And what is the DN-10 hack?

6 204: 4 A. I don't remember the details off the top of my

7 204: 5 head. I do remember that it was somehow technically

8 204: 6 different from the hack for the other cards, the
9 lower

10 204: 7 numbered cards.

11 204: 8 MR. DILGER: That one? Oh, there we go.

12 204: 9 (Deposition Exhibit 689 was marked.)

13 204:10 Q. (By MR. DILGER) Handing you what's been marked

14 204:11 Exhibit 689.

15 204:12 A. Okay.

16 204:13 Q. At the very end of the second page, it says,

17 204:14 "This is the web page with the complete details of

18 204:15 getting into the back door of the ROM10 that was

19 204:16 referenced (and censored) in Renee's report today."

20 Do

21 204:17 you see that?

22 204:18 A. Yes.

23 204:19 Q. Is this what you're referring to when you talk

24 204:20 about the DN-10 hack?

25 204:21 A. Yes.

1 204:22 Q. And what was the DN-10 -- how did the DN-10
2 204:23 hack work?

3 204:24 A. It was another method of getting into the cards
4 204:25 so that you could reprogram it to be suitable for
5 pirate

6 205: 205

7 205: 1 applications.

8 205: 2 Q. And you call it a back door here. What do you

9 205: 3 mean by that?

10 205: 4 A. The back door is a term that refers to a second

11 205: 5 access system into the card, the primary access
12 system

13 205: 6 being the way the set-top box talks to it through
14 certain

15 205: 7 messages that are cryptographically secured to go to
16 that

17 205: 8 card. The back door is a second method to talk to it

18 205: 9 independent of that.

19 205:10 Q. All other things being equal, is it fair to say

20 205:11 that a card with a back door is less secure than a
21 card

22 205:12 without a back door?

23 205:13 MR. FERGUSON: Opinion, calls for

24 205:14 speculation.

25 205:15 A. Yes.

1 Page Range: 205:20-205:24

2 205:20 Q. (BY MR. DILGER) And it's correct that the

3 205:21 DN-10 hack exploited that back door in the ROM10

4 card; is

5 205:22 that right?

6 205:23 MR. FERGUSON: Foundation.

7 205:24 A. Yes.

8 Page Range: 206:10-207:16

9 206:10 Q. But it's your recollection that the DN-10 hack,

10 206:11 in fact, did work?

11 206:12 A. Oh, yes.

12 206:13 Q. You say that quite emphatically. Why?

13 206:14 A. It became widespread very quickly. It was

14 206:15 posted on a public hacker board that anyone could
15 read.

16 206:16 Q. And once they had that information about the

17 206:17 ROM10, they had pretty much access to free television
18 on

19 206:18 the DNASP002 signal, right?

20 206:19 MR. FERGUSON: Foundation.

21 206:20 A. Yes. Well, they already did, using the ROM2

22 206:21 and 3 cards under that system. This gave them similar

23 206:22 access with the ROM10 card.

24 206:23 Q. (BY MR. DILGER) Right. So once you had access

25 206:24 on any version of the cards, you had access to the

1 DNASP

2 206:25 signal, right?

3 207: 207

4 207: 1 A. Yes.

5 207: 2 Q. When did the switch to the ROM -- from the

6 207: 3 DNASP002 system to the Aladdin system, when did that

7 207: 4 complete? When was the DNASP signal turned off?

8 207: 5 A. I believe we were still broadcasting the old

9 207: 6 DNASP002 signal when I left. I think so.

10 207: 7 Q. In 2006?

11 207: 8 A. Yes.

12 207: 9 Q. When following the introduction of the Nagra 2

13 207:10 card are you aware that the Nagra 2 card became

14 207:11 compromised?

15 207:12 A. Meaning the Aladdin card?

16 207:13 Q. Excuse me, the Aladdin card.

17 207:14 MR. FERGUSON: Foundation.

18 207:15 A. My recollection is that it was compromised

19 207:16 almost immediately after it was deployed.

20 Page Range: 150:22-151:10

21 150:22 Q. Do you recall drafting a report about FTA

22 150:23 security issues?

23 150:24 A. Yes.

24 150:25 Q. And what was that report about? I'd like to

25 151: 151

1 151: 1 question you about it, but it has not been produced
2 to us

3 151: 2 in discovery, so I have to ask you what it's about.

4 151: 3 A. My recollection is that this was from the era

5 151: 4 when the free-to-air or FTA piracy boxes were just
6 coming

7 151: 5 online, and they very quickly became a problem to us;
8 and

9 151: 6 so I did my initial analysis of the problem to
10 determine

11 151: 7 how effective they were and what their weaknesses
12 might

13 151: 8 be, et cetera. And it appears, from reading this
14 e-mail,

15 151: 9 that this was my first draft of this document, and I
16 was

17 151:10 asking for comments.

18 Page Range: 152:2-152:16

19 152: 2 Q. So at this time, in 2003, Bell ExpressVu was

20 152: 3 having serious FTA security problems?

21 152: 4 MR. FERGUSON: Foundation -- foundation.

22 152: 5 A. My recollection is that when the FTA box hacks

23 152: 6 came online, they first attacked DISH and then pretty

24 152: 7 quickly afterwards, within a pretty short time, they

25 152: 8 attacked Bell ExpressVu, as well.

1 152: 9 Q. (BY MR. DILGER) And why was the customer's
2 152:10 need urgent?

3 152:11 MR. FERGUSON: Foundation, calls for
4 152:12 speculation.

5 152:13 A. My recollection is that -- that the customers
6 152:14 were very worried about this. They were very aware of
7 152:15 this, and they wanted to get out in front of it as
8 152:16 quickly as possible.

9 Total Length - 00:24:30

10

11 MR. SNYDER: That's the end of defendant's
12 designations.

13 Your Honor, I believe that of the exhibits that
14 were referenced, Nos. 206 and 685 are already in evidence.

15 Defendants move 683 and 689.

16 THE COURT: Any objection?

17 MR. WELCH: You gave me 685, Darin.

18 Your Honor, we have no objection to 689.

19 THE COURT: And you're going to look at 683 for a
20 moment?

21 MR. WELCH: Yes, Your Honor.

22 THE COURT: Are you going to play
23 cross-designations of this witness by the plaintiff?

24 MR. HAGAN: There are, Your Honor.

25 THE COURT: Why don't we play those at this time.

1 (Excerpt of video deposition of Peter
2 Kuykendall, transcript herein incorporated as
3 provided by plaintiff's counsel, played as
4 follows:)

5 PLAINTIFFS' DEPOSITION COUNTER-OFFERINGS FOR
6 PETER KUYKENDALL

7 Total Length - 11 sec. 6sec

8 Description: Page 006:4-6:6

9 6: 4 Q. Good. Can you please state your full name for
10 6: 5 the record.

11 6: 6 A. Peter Owen, O-w-e-n, Kuykendall.

12 Description: Page 009:22-9:24

13 9:22 Q. Okay. You understand that you are testifying
14 9:23 under oath today?

15 9:24 A. Yes.

16 Description: Page 209:14-209:20

17 209:14 Q. Mr. Kuykendall, you began working for NagraStar
18 209:15 in the early part of 2002, correct?

19 209:16 A. Yes.

20 209:17 Q. And you have no personal knowledge regarding
21 209:18 EchoStar's or Nagra -- NagraStar's investigation into
22 209:19 satellite piracy prior to early 2002, correct?

23 209:20 A. Correct.

24 Description: Page 88:10-88:17

25 88:10 Can you recall the names of any individuals you

1 88:11 investigated regarding satellite piracy of EchoStar's
2 88:12 system?

3 88:13 A. Mostly my role was evidence analysis, and the
4 88:14 names of the accused person were generally available
5 to
6 88:15 me in the report, but in almost all cases they didn't
7 88:16 mean anything to me. I didn't -- I don't remember who
8 88:17 they were. That -- that's the extent of it.

9 Description: Page 169:20-170:4

10 169:20 Q. (BY MR. DILGER) Earlier, we talked about
11 169:21 reverse engineering of pirate devices, and
12 specifically
13 169:22 it's my understanding that you reverse-engineered
14 certain
15 169:23 pirate devices for EchoStar technology, correct?

16 169:24 A. Yes.

17 169:25 Q. And -- but you never recalled ever

18 170: 170

19 170: 1 reverse-engineering pirate devices for any other

20 170: 2 competitor's technology; is that correct?

21 170: 3 A. No, just the EchoStar and Bell ExpressVu

22 170: 4 systems.

23 Description: Page 032:21-33:3

24 32:21 Q. (BY MR. DILGER) Do you have an understanding

25 32:22 as to when Haifa's findings were published on a pirate

1 32:23 site?

2 32:24 A. No. I don't recall the date.

3 32:25 Q. Was it before you arrived at NagraStar?

4 33: 33

5 33: 1 A. Yes.

6 33: 2 Q. But you have no idea when except for before

7 33: 3 2002?

8 Description: Page 033:5-33:8

9 33: 5 A. The system had already been pirated by the time

10 33: 6 I got there, to NagraStar.

11 33: 7 Q. (BY MR. DILGER) The DNASP002 system?

12 33: 8 A. Yes.

13 Description: Page 065:16-65:21

14 65:16 Q. (BY MR. DILGER) My understanding, from your

15 65:17 testimony in the Soupanthong case, is that an in-depth

16 65:18 analysis of a card would require the assistance of

17 65:19 NagraVision.

18 65:20 A. Of a card, yes. We were not privy to the

19 65:21 internals of the card.

20 Description: Page 154:25-155:2

21 154:25 Q. (BY MR. DILGER) Is there a connection between

22 155: 155

23 155: 1 the word Nipper and the NagraVision code used in the

24 155: 2 card, to your understanding?

25 Description: Page 155:7-155:13

1 155: 7 A. Yes.

2 155: 8 Q. (BY MR. DILGER) And what is that connection?

3 155: 9 A. There is a string of characters embedded as

4 155:10 part of the code of genuine DNASP002 cards that

5 includes

6 155:11 the term Nipper.

7 155:12 Q. And what is the purpose of that string of

8 155:13 characters, to your knowledge?

9 Description: Page 155:15-155:18

10 155:15 A. My understanding is that that was used as a

11 155:16 flag, that if we ever saw that in a pirate device,

12 that

13 155:17 we would know that it was our code that had been

14 copied

15 155:18 in there.

16 Description: Page 098:23-98:24

17 98:23 Q. And why was the DNASP002 system easy to attack

18 98:24 with the low-cost piracy devices?

19 Description: Page 099:2-99:16

20 99: 2 A. Once the information is released, say, in the

21 99: 3 form of a script of how to attack the card, it becomes

22 99: 4 easy for a person of average skill to apply that

23 script

24 99: 5 to a card and attack it.

25 99: 6 THE REPORTER: I'm sorry, ". . . to a card" --

1 99: 7 THE DEPONENT: And attack the card.

2 99: 8 Q. (BY MR. DILGER) So when the information is
3 99: 9 released in the form of a script, is it fair to say
4 that

5 99:10 the vulnerabilities of the card become apparent to
6 99:11 hackers of average skill?

7 99:12 A. I would say it becomes possible for a hacker of
8 99:13 average skill to hack a Smartcard once a script is
9 99:14 released.

10 99:15 Q. Is it your understanding that such a script was
11 99:16 released for the DNASP002 cards?

12 Description: Page 099:18-99:18

13 99:18 A. Yes.

14 Description: Page 101:9-101:11

15 101: 9 Q. And why is it your understanding that the
16 101:10 existence of these scripts pointed to a release of
17 101:11 information about the DNASP002 system?

18 Description: Page 101:13-101:21

19 101:13 A. These scripts are very complicated. The odds
20 101:14 of them being put together randomly are just
21 101:15 astronomically low. In my opinion, it requires a
22 101:16 fundamental knowledge of the memory content of the
23 card,
24 101:17 which is not publicly disclosed or was not, in order
25 to

1 101:18 write a script that could access it.

2 101:19 Q. (BY MR. DILGER) How would one obtain a

3 101:20 fundamental knowledge of the memory content of the

4 101:21 DNASP002 cards other than through talking to

5 NagraVision?

6 Description: Page 101:24-101:25

7 101:24 A. Well, one way would be to reverse-engineer the

8 101:25 card.

9 Description: Page 104:3-104:5

10 104: 3 Q. (BY MR. DILGER) Is it your understanding that

11 104: 4 pirates -- some pirates would have had the

12 capabilities

13 104: 5 of reverse engineering the DNASP002 system?

14 Description: Page 104:7-104:14

15 104: 7 A. I don't know of any. It's a pretty big

16 104: 8 industrial-scale effort.

17 104: 9 Q. (BY MR. DILGER) In what way?

18 104:10 A. This kind of effort often will involve exotic

19 104:11 techniques such as electron beam -- excuse me,

20 electron

21 104:12 beam microscopy, focused ion beam, microprobing,

22 other

23 104:13 such attacks that require big, exotic, expensive

24 104:14 equipment.

25 Description: Page 162:14-162:16

1 162:14 Q. So at the time that a -- the script was
2 162:15 available, is it fair to say that the NagraStar card
3 was
4 162:16 completely compromised?

5 Description: Page 162:19-162:23

6 162:19 A. That's my recollection, and that's the
7 162:20 implication of the data that's there.

8 162:21 Q. (BY MR. DILGER) So once you have that script,
9 162:22 though, the NagraCard is basically open for
10 inspection by
11 162:23 any pirate with moderate skills; is that correct?

12 Description: Page 162:25-162:25

13 162:25 A. Yes. That's correct.

14 Description: Page 177:21-177:23

15 177:21 Q. Were you involved in any communications with
16 177:22 EchoStar regarding dissatisfaction with the security
17 of
18 177:23 the NagraStar/NagraVision conditional access card?

19 Description: Page 177:25-177:25

20 177:25 A. Yes.

21 Description: Page 180:2-181:9

22 180: 2 Q. Right. Okay. So sometime around late 2002 or
23 180: 3 early 2003, you recall starting those meetings?

24 180: 4 A. Yes.

25 180: 5 Q. And what did the individuals at EchoStar tell

1 180: 6 you about their dissatisfaction? What complaints were

2 180: 7 they making at these meetings?

3 180: 8 A. Generally the complaint was that the system was

4 180: 9 hacked, and we -- and it stayed hacked. The complaint

5 180:10 was that we couldn't kind of seal it down again and

6 hold

7 180:11 it down.

8 180:12 Q. What was being discussed in terms of trying to

9 180:13 seal it down and hold it down?

10 180:14 A. We would discuss the extent of the problem, the

11 180:15 nature of the hacks, the nature of the

12 countermeasures,

13 180:16 propose different strategies for countermeasures,

14 things

15 180:17 like that.

16 180:18 Q. Aside from ECMs, were there any other

17 180:19 countermeasures that were being discussed?

18 180:20 A. Yes.

19 180:21 Q. What were those countermeasures?

20 180:22 A. We would discuss making changes to the key

21 180:23 stream. We would discuss software changes to the

22 180:24 receivers, the set-top boxes. We would discuss

23 180:25 potentially doing a card swap. We'd even discuss

24 doing a

25 181: 181

1 181: 1 receiver swap.

2 181: 2 Q. Excluding the card swap and the ECMs, which of
3 181: 3 those countermeasures did you actually implement?

4 181: 4 A. Well, we -- we did make changes to the data
5 181: 5 stream. We did make changes to the set-top box code.
6 I

7 181: 6 think that's all I listed, right? Oh, we did not do a
8 181: 7 receiver swap while I was there.

9 181: 8 Q. And when did you first recall discussing a card
10 181: 9 swap with EchoStar?

11 Description: Page 181:11-181:15

12 181:11 A. I believe it was right away in one of my first
13 181:12 meetings in that security group, if not the first
14 181:13 meeting.

15 181:14 Q. (BY MR. DILGER) Were -- were ECMs effective in
16 181:15 preventing piracy of EchoStar's signal?

17 Description: Page 181:17-181:19

18 181:17 A. They had varying degrees of effectiveness.

19 181:18 Q. (BY MR. DILGER) Is it accurate to say that
20 181:19 they ranged from ineffective to effective?

21 Description: Page 181:21-181:23

22 181:21 A. I would characterize them as all the way from
23 181:22 ineffective to completely effective for some amount
24 of
25 181:23 time ranging from hours to months.

1 Description: Page 188:10-188:11

2 188:10 Q. Do you recall when a decision was made to swap
3 188:11 out the DNASP002 system with the Aladdin system?

4 Description: Page 188:13-188:24

5 188:13 A. No. When I came to work for NagraStar, they
6 188:14 were well on the road to developing Aladdin with the
7 188:15 intent of deploying it when it was ready.

8 188:16 Q. (BY MR. DILGER) At the time you came to work
9 188:17 for NagraStar, Aladdin cards were already in the
10 field,

11 188:18 correct?

12 188:19 A. No.

13 188:20 Q. There were no Aladdin cards in the field in
14 188:21 2002?

15 188:22 A. Not that I'm aware of. We had them in our lab,
16 188:23 testing them and developing them, but there were none
17 in
18 188:24 field trials, as far as I know.

19 Total Length - 00:11:06

20

21 THE COURT: Does that conclude the
22 cross-designation?

23 MR. HAGAN: Yes, sir.

24 THE COURT: Call your next witness.

25 MR. WELCH: We have no objection to 683.

1 THE COURT: Thank you very much. 683 is also
2 received.

3 (Exhibit No. 683 received in evidence.)

4 MR. SNYDER: And we moved 685 and 689.

5 MR. WELCH: No objection.

6 THE COURT: Those are received.

7 MR. SNYDER: Thank you, Your Honor.

8 (Exhibit No. 685 received in evidence.)

9 (Exhibit No. 689 received in evidence.)

10 MR. SNYDER: Defendants call James Emerson.

11 THE COURT: Sir, if you would be kind enough to
12 raise your right hand, please.

13 JAMES J. EMERSON, DEFENSE WITNESS, SWORN

14 THE WITNESS: I do.

15 THE COURT: Thank you, sir.

16 If you would please be seated in the witness box.

17 Sir, would you state your full name for the jury.

18 THE WITNESS: James J. Emerson.

19 THE COURT: Would you spell your last name,
20 please.

21 THE WITNESS: E-M-E-R-S-O-N.

22 THE COURT: This is direct examination on behalf
23 of NDS by Mr. Eberhart.

24

25

DIRECT EXAMINATION

1
2 BY MR. EBERHART:

3 Q. Good morning.

4 You've been hired by NDS to provide expert testimony in
5 this case, correct?

6 A. I've not dealt directly with NDS, but exclusively with
7 outside counsel for NDS.

8 Q. And have you provided expert witness testimony in other
9 cases?

10 A. At least one other.

11 Q. And without telling us any opinions you may have
12 formed, what were you asked to do in connection with this
13 case?

14 A. I was asked to review information and evidence that was
15 in the possession of ICG and determine whether any of it was
16 relevant potentially to a post described in the Fourth
17 Amended Complaint as the NiPpEr2000 post.

18 Q. And did you form any opinions as a result of your
19 research?

20 A. Oh, yes, sir.

21 Q. Let's cover your background for a minute before we get
22 to your opinions.

23 What is your educational background, sir?

24 A. I have a bachelor of arts degree in law and justice, an
25 advanced degree, a master of military art and science, and

1 about 20 credits in graduate level forensic work.

2 Q. Do you have any specialized certifications?

3 A. Yes, sir, several of 'em.

4 Q. What are those?

5 A. I am a certified computer forensic specialist, and I
6 also am a computer hacking forensic investigator by
7 certification, and I possess the National Security Agency's
8 certification for their Information Security Assessment
9 Methodology.

10 Q. Okay. Are there any requirements that you need to meet
11 in order to become a computer -- certified computer forensic
12 specialist?

13 A. Both of the certifications required extensive written
14 testing. The first certification as a certified computer
15 forensic specialist required a practical demonstration of
16 skills as well.

17 Q. When did you receive those certifications?

18 A. The first I received in 2003 -- or very early 2003 --
19 and the second I received in the beginning of this year.

20 Q. And what is the National Security Agency's Information
21 Assessment Methodology?

22 A. The National Security Agency has a set of standards by
23 which they garner information security across their
24 responsible areas of the government. Not just within their
25 own agency, but with the Department of Defense, for example.

1 And the standards that are developed within that methodology
2 are designed for the assessment of risk, the evaluation and
3 measurement of risk, and a basis for defending against that
4 risk.

5 Q. And what requirements did you have to meet to become
6 certified in the NSA's information assessment methodology?

7 A. That was also a period of instruction with a written
8 test to demonstrate proficiency.

9 Q. Now, you're currently employed by Internet Crimes
10 Group, or ICG, correct?

11 A. Yes, sir.

12 Q. What did you do before you were employed by ICG?

13 A. I worked for a company that was called
14 IXP, Incorporated for a little over a year. And that
15 company was in the business of installing 911 centers, all
16 forms of technology, emergency operation centers, command
17 and control-type facilities.

18 Q. And what did you do prior to working for IXP?

19 A. I was in the United States Marine Corps for 25 years.

20 Q. Did you receive any education relating to computer
21 hacking or computer forensics while you were employed by the
22 Marine Corps?

23 A. Not specifically forensics. Information security,
24 though.

25 Q. What training did you receive on information security

1 while you were in the Marines?

2 A. I attended the Navy's Information Systems Security
3 Management course.

4 Q. Okay. And what was the Navy Information Systems
5 Security Management course?

6 A. It was a course designed much like the NSA program to
7 familiarize you intimately with standards for both defensive
8 information in all domains that are to -- there are several
9 basic domains, such as computer security, computer
10 communication security, personnel or administrative
11 security, physical security -- just the ability to
12 physically lock the infrastructure and protect it
13 appropriately as well as the ability to manage change
14 across -- involving technical platforms.

15 So this course was designed to give you an
16 understanding of all those domains, to be able to deal with
17 risk, and to protect information within the Department of
18 Defense and specifically the Department of the Navy.

19 Q. And have you ever received training from the FBI
20 National Academy?

21 A. Yes, sir.

22 Q. What training did you receive from them?

23 A. I was a student at the FBI National Academy in 1987 and
24 went through their 17-week program.

25 Q. Okay. What was the focus of that 17-week program, just

1 briefly, sir?

2 A. The FBI National Academy is a program where the Federal
3 Bureau of Investigation reaches out to law enforcement at
4 state, local, and tribal as well as military agencies that
5 are in the business of law enforcement and provides them
6 with professional education, foundational education,
7 forensics, communications. I had a course on organizing and
8 operating a task force related to narcotics interdiction
9 while I was there. I had a stress management course while I
10 was there. So it was a well-rounded professional education
11 program.

12 Q. And did you receive any other technical experience
13 while you were a member of the Marine Corps?

14 A. Well, I've had a great deal of responsibility with
15 regard to technology over the years as I increased in rank
16 and progressed across my career. That started with
17 responsibility for network administration in some of the
18 earlier days of Banyan VINES-style networks, and I continued
19 to receive those kinds of additional duties across my career
20 for being in the right place at the right time in some
21 cases.

22 In other cases, because I had some technical focus, I
23 found myself immersed into communication security
24 investigations, classified material, security programs,
25 personnel security. I ran the largest personnel security

1 reliability program the Marine Corps has. And so there's
2 some examples.

3 Q. Mr. Emerson, if you could slow down a little bit, I
4 think the court reporter would appreciate a slightly slower
5 pace.

6 A. Certainly.

7 Q. Were you honorably discharged from the Marines?

8 A. I'm technically a retired Marine.

9 Q. What was your rank when you retired from the Marines?

10 A. Lieutenant Colonel.

11 Q. How long have you been employed by ICG?

12 A. Five and a half years.

13 Q. And what is your role at ICG?

14 A. Currently I am the vice president who's responsible for
15 the antipiracy practice.

16 Q. And what types of duties and activities do you
17 undertake as part of your role as vice president in the
18 antipiracy practice?

19 A. We tend to investigate the human aspect of piracy, the
20 technology that's involved in piracy, and acquire and
21 preserve evidence related to piracy where we have a
22 corporate client that's a victim.

23 MR. EBERHART: Your Honor, at this time defendants
24 offer James Emerson as an expert in Internet investigations
25 and computer forensics.

1 MS. WILLETTS: No objection, Your Honor.

2 THE COURT: Okay. You may proceed.

3 BY MR. EBERHART:

4 Q. Mr. Emerson, can you explain in a little more detail
5 what kind of research you were asked to perform in
6 connection with this case?

7 A. ICG, or the Internet Crimes Group, possesses a great
8 deal of forensic evidence related to satellite piracy as a
9 result of the work that we've done for DirecTV over the last
10 four, five years. And specifically, that body of
11 information and evidence -- initially I was asked to look at
12 it and see whether there was evidence that was related to in
13 any way claims in the Fourth Amended Complaint. So that's
14 essentially my original guidance.

15 Q. Okay. And the Fourth Amended Complaint is the Fourth
16 Amended Complaint filed by the plaintiffs --

17 THE COURT: Well, just a moment. This isn't going
18 to be expert testimony in relation to the complaint. He's
19 not going to be putting in front of the jury his opinion
20 about the allegations. He can speak about his expertise,
21 tracing, et cetera, and that's what he's limited to.

22 MR. EBERHART: He is not going to be.

23 THE COURT: I hope we're not going there.

24 MR. EBERHART: No, we're not going there,
25 Your Honor. We are --

1 THE COURT: All right. Let's move along.

2 BY MR. EBERHART:

3 Q. Mr. Emerson, you were asked specifically to investigate
4 certain aliases that were listed in the Fourth Amended
5 Complaint, correct?

6 A. That's correct.

7 Q. Okay. And ICG was compensated for your work in this
8 matter, correct?

9 A. That's correct, yes.

10 Q. Now, you mentioned certain forensic evidence that is in
11 the possession of ICG. Could you explain to the jury what
12 you mean by that?

13 A. ICG's been involved as an agent of DirecTV in actions
14 they've taken to mitigate certain piracy.

15 THE COURT: I'm sorry. He said, what evidence do
16 you have in your possession?

17 THE WITNESS: I'm sorry, Your Honor.
18 Forensic evidence.

19 THE COURT: What?

20 THE WITNESS: Mirrored images of hard drives that
21 were associated with pirate websites.

22 THE COURT: Thank you.

23 BY MR. EBERHART:

24 Q. So these were hard drives that were seized or obtained
25 from people who are operating pirate websites?

1 A. That's correct, yes.

2 Q. And are you familiar with something called Pirate Base?

3 A. I am, yes.

4 Q. What is Pirate Base?

5 A. It's essentially a large index system that allows ICG
6 to search globally across what is a lot of evidence more
7 efficiently.

8 Q. Did you conduct any searching of Pirate Base or other
9 material in ICG's possession related to the NiPpEr2000
10 posting?

11 A. Yes, sir, I did.

12 Q. Okay. What work did you do?

13 A. The first thing that I did was to take key words that
14 were provided by outside counsel for NDS and to run searches
15 in Pirate Base.

16 MR. EBERHART: Okay. Michael, if you could show
17 the witness Exhibit 191. It's already admitted.

18 (Document displayed.)

19 BY MR. EBERHART:

20 Q. Sir, is Exhibit 191 a copy of the NiPpEr2000 posting
21 that you were asked to investigate?

22 A. It appears to be.

23 THE COURT: Now, this exhibit also has another
24 marking, doesn't it, Counsel? What's the dual marking?

25 MR. SNYDER: You may be referring to 511-A,

1 Your Honor, which is the posting on dr7. That's, I believe,
2 a different posting than this one.

3 MS. WILLETTS: This posting is also 12-A,
4 Your Honor.

5 MR. SNYDER: Oh.

6 THE COURT: It's also 12-A.

7 (To the jury:) A couple of these items have been
8 dual marked. They're not intended to overemphasize the
9 argument. This came in originally in EchoStar's
10 presentation as 12-A. It's coming in during the defense
11 presentation as 191. I want to make certain that you don't
12 overemphasize the document because it appears twice
13 potentially in the jury room, and counsel frankly haven't
14 worked that out yet with the Court. So I just want to
15 forewarn you that's a prior document.

16 Counsel.

17 BY MR. EBERHART:

18 Q. What did you do in order to search for information
19 related to the post shown in Exhibit 191?

20 A. Took the user name as it's been identified in my work
21 of NiPpEr2000 and searched that user name across the
22 database to determine whether there were any instances of
23 that particular text string anywhere in the evidence that we
24 held.

25 Q. Did you find that user name?

1 A. Yes, sir.

2 MR. EBERHART: Michael, could you show the witness
3 Exhibit 726-A.

4 BY MR. EBERHART:

5 Q. Sir, what is Exhibit 726-A?

6 A. This Exhibit 726-A is a forensic production that I
7 created.

8 Q. And this is a forensic production that you prepared in
9 the course of your work in this case?

10 A. Yes, sir.

11 MR. EBERHART: Your Honor, defendants offer
12 Exhibit 726-A.

13 MS. WILLETTS: We object to lack of foundation.
14 We don't know yet how he's prepared this exhibit.

15 THE COURT: Sustained.

16 BY MR. EBERHART:

17 Q. Mr. Emerson, could you describe how you -- the steps
18 you took in order to generate Exhibit 726-A?

19 A. This exhibit was extracted forensically from the active
20 database files for -- which we had in evidence -- which were
21 related to DSS chat, which was a segment of PiratesDen.

22 Q. Okay. Let's step back for a minute.

23 What was DSS chat?

24 A. DSS chat was the public forum for the website that was
25 better known as PiratesDen.

1 Q. And how did ICG obtain information that was part of DSS
2 chat?

3 A. On June 26th of 2003, we were agents for a civil action
4 in Canada against a defendant Darryl Gray. And at that
5 time, we made forensic duplications of all of the software
6 that was related to Mr. Gray's computers in both the website
7 sense and his personal computers.

8 Q. And did Mr. Gray's computers include information
9 related to DSS chat and PiratesDen?

10 A. Yes, that's correct.

11 Q. And did the information in Exhibit 726-A come from a
12 search of the information that was obtained from Mr. Gray?

13 A. Yes, sir.

14 MR. EBERHART: Your Honor, defendants offer
15 Exhibit 726-A.

16 THE COURT: Counsel?

17 MS. WILLETTS: No, objection.

18 THE COURT: Received.

19 (Exhibit No. 726-A received in evidence.)

20 (Document displayed.)

21 BY MR. EBERHART:

22 Q. Would you explain, Mr. Emerson, for a moment what
23 Exhibit 726-A shows?

24 A. 726-A is essentially the record for the post from the
25 database. It's in raw form. It's not presented in the same

1 way that it would have been viewed from the website, but
2 it's the data that was in that post table, and specifically
3 the record for the post which we saw in Exhibit 191.

4 Q. Did you take any additional steps to search for data
5 related to the post that's shown in Exhibit 191 and
6 Exhibit 726-A?

7 A. Yes, sir, we did.

8 Q. What were those steps?

9 A. This was extracted from the database itself. The steps
10 that we subsequently took related to the entire storage
11 media that was related to where these active database files
12 existed. So we ran forensic tools across the entire drive
13 to find out if there were any presence of the text string
14 "Nipper" on that drive. That was of the context of the
15 search.

16 Q. Okay. And what did you find?

17 A. We identified a series of files which were not in the
18 active database. They were in a separate folder marked
19 "hold." And one of those files was entitled "post" --
20 P-O-S-T -- ".isd." It was a database file, a data file for
21 the database, and we examined that file and found relevant
22 information to the post as well.

23 Q. Okay. And you've talked about a database file. What
24 application was that database intended for use with?

25 A. The database software was MYSQL. It's an open source

1 free database software that's very capable and as a result
2 very popular in --

3 Q. Was that database, to your knowledge, intended to
4 support any particular application?

5 A. Well, the database, as we understood PiratesDen and
6 specifically DSS chat, contained the data behind the forum.
7 And again, the database interacts with both the web server
8 and a piece of software that's known as vBulletin, made by a
9 company called Jelsoft. And the vBulletin software in
10 concert with the database creates the forum in an HTML or a
11 browser-like view as you see in 191, Exhibit 191,
12 originally.

13 Q. And so was the database that you found -- was that the
14 database that supported the forums of the PiratesDen
15 website?

16 A. Yes, sir.

17 MR. EBERHART: Michael, could you show the witness
18 Exhibit 726-B.

19 BY MR. EBERHART:

20 Q. Mr. Emerson, what is Exhibit 726-B?

21 A. This is a forensic production created by our director
22 of forensics, currently Lacy Walker, at my request. He ran
23 the second search that we just discussed across the entire
24 hard drive, and this is essentially an artifact from the
25 file I just described.

1 Q. And at the top of the page it says, "EnCase report."
2 What is EnCase?

3 A. EnCase is a forensic tool, a fairly popular forensic
4 tool, manufactured by Guidance Software.

5 MR. EBERHART: Your Honor, at this time,
6 defendants offer Exhibit 726-B.

7 THE COURT: Any objection?

8 MS. WILLETTS: No objection, Your Honor.

9 THE COURT: Received.

10 (Exhibit No. 726-B received in evidence.)

11 (Document displayed.)

12 BY MR. EBERHART:

13 Q. If you could focus at the top of the page there,
14 there's some information there that says, "File name post
15 ISD." What does that mean, sir?

16 A. That is essentially the file that I just described, the
17 metadata for that file in the sense that it is the name of
18 the file as we found it on that drive.

19 Q. Okay. And so am I correct to understand that those
20 first seven lines describe attributes of the file that
21 Mr. Walker searched with EnCase to locate these results?

22 A. Yes, sir.

23 Q. Looking down into the body of this EnCase report, the
24 first entry seems to be a posting by someone using the name
25 "2therealking." Am I correct about that?

1 A. Yes, sir.

2 Q. Do you know who 2therealking was?

3 A. I don't recall his name.

4 Q. Okay.

5 A. I've seen the user name before.

6 Q. Okay. Let's go down first to the bottom of the page.

7 What's shown there, beginning with "There will be no
8 boxes anymore"?

9 A. We're looking at essentially the text that's viewable
10 by the EnCase native viewer as it looks at the overall
11 content of that file. We're only seeing a text view. The
12 viewer in this forensic tool is capable of looking at the
13 text.

14 Q. Turning to the last page of Exhibit 726-B, what
15 information is shown on that page?

16 A. There's a -- looks to be a statement and the name
17 NiPpErClAuZ00 and what appears to be an Internet protocol
18 address.

19 Q. Okay. And what information on that page is the
20 Internet protocol address?

21 A. It's 209.91.172.170.

22 Q. And what is an Internet protocol address?

23 A. To get data from one point on the Internet to another
24 point on the Internet requires a way to route the pieces of
25 that data as it flows. The Internet protocol is a base

1 protocol that's used for addressing in that sense, routing
2 in that sense. This is an example of an Internet protocol
3 address.

4 Q. Is the post that is shown in 726-B that begins with
5 "There will be no boxes anymore" and ends with that IP
6 address, is that the same post as shown in Exhibit 726-A and
7 Exhibit 191?

8 A. Substantively the text appears to be the same; the
9 exception being that there's an IP address in this file
10 included. Whereas, in the active database export depicted
11 in 726-A, there was no IP address. It simply was 0000.

12 Q. So only in Exhibit 726-B were you able to locate an IP
13 address for this posting?

14 A. Yes, sir, that's correct.

15 Q. Mr. Emerson, to your knowledge, has anyone else
16 determined that this same IP address that you found for the
17 NiPpEr2000 posting was associated with that posting?

18 A. Yes, sir, to my knowledge.

19 Q. Who found that same information?

20 A. My understanding is that the testimony of
21 Ms. Renee Coltharp included a discussion of this IP address.

22 Q. Did you review Ms. Coltharp's deposition testimony?

23 A. Yes, sir, I did.

24 Q. What is your understanding of who Renee Coltharp is?

25 A. My understanding was that she was the investigator who

1 worked for EchoStar.

2 MR. EBERHART: Michael, could you show the witness
3 Exhibit 192.

4 BY MR. EBERHART:

5 Q. Mr. Emerson, what is Exhibit 192?

6 A. It appears to be a print of a vBulletin admin control
7 panel view. More importantly, the IP address and the user
8 name NiPpEr2000 are both depicted as what appears to be a
9 response to a query.

10 Q. When you say "a vBulletin administrator panel," what do
11 you mean by that?

12 A. Someone was able with administrator access to go into
13 the database through a browser and query the database in
14 various ways.

15 Q. Okay. And did Ms. Coltharpe testify about this
16 Exhibit 192?

17 A. Yes, sir.

18 Q. And did she testify that this was the IP address that
19 she had received for the NiPpEr2000 posting?

20 A. Yes, sir, she did.

21 Q. And does this document bear a date?

22 A. It does. February 21st, 2001.

23 Q. And did Mrs. Coltharpe testify about where she obtained
24 Exhibit 192?

25 A. I believe her testimony stated that it came from

1 Charles Perlman.

2 MR. EBERHART: Your Honor, at this time defendants
3 offer Exhibit 192.

4 MS. WILLETTS: No, objection, Your Honor.

5 THE COURT: Received.

6 (Exhibit No. 192 received in evidence.)

7 (Document displayed.)

8 BY MR. EBERHART:

9 Q. Looking near the top of Exhibit 192, it indicates IP
10 addresses by this user, NiPpEr2000, correct?

11 A. Yes, sir.

12 Q. And it lists 209.91.172.170, correct?

13 A. Yes, sir.

14 Q. And that's the same IP address that you found when you
15 searched Darryl Gray's hard drives that had been seized from
16 him, correct?

17 A. That's correct.

18 Q. Can an IP address help us identify the location of a
19 particular computer user?

20 A. Yes, sir, I believe so.

21 Q. Have you prepared some slides to help explain your
22 testimony about this issue?

23 A. Yes, sir.

24 Q. Okay.

25 MR. EBERHART: Charlie, if we could put up the

1 first slide.

2 (Document displayed.)

3 BY MR. EBERHART:

4 Q. Mr. Emerson, what does this slide show?

5 A. I'd like to start using an analogy of a phone number,
6 which is much more familiar to most people, and the
7 relationship of a phone number with regard to geography.

8 Q. Okay.

9 A. We started with a country code. In the case here,
10 someone dialing from outside the United States would dial
11 011 as a country code to make a connection in the
12 United States. And then next, we'd have to enter an area
13 code to get us into a particular region. The next component
14 of a phone number is an exchange code, and then finally the
15 subscriber line with a very symmetrical relationship to
16 geography as we use that particular type of number.

17 Q. Now, were you able to determine the geographic location
18 of the NiPpEr2000 posting based on the IP address that you
19 located and Ms. Coltharpe located?

20 A. Yes, sir, I believe so.

21 Q. Could you explain to the jury how the IP address helps
22 you to locate the geography from which the NiPpEr2000 post
23 originated?

24 A. Well, Internet protocol addresses are not as
25 symmetrical in their relationship to a physical device or a

1 physical computer. There are segments of that address,
2 three digits in each case -- up to three digits in each
3 case -- which is related to either a network or a particular
4 host, depending on how large the grouping of numbers is that
5 it's within.

6 To manage this process, there are regional Internet
7 registries. The North American registry or registrar, ARIN,
8 is responsible for assignment of this particular address,
9 209.91.172.170.

10 Q. And can you determine further from information that's
11 available to you the geographic location of where the
12 NiPpEr2000 post originated?

13 A. Next, we go to the AR.

14

15 To manage this process there are regional Internet
16 registries. The North American registry or registrar ARIN
17 is responsible for assignment of this particular address.
18 209.91.172.170.

19 Q. And can you determine further from information that's
20 available to you the geographic location of where the
21 NiPpEr2000 post originated?

22 A. Next we go to the ARIN database, and we query the
23 database with regard to who has been registered to use that
24 particular IP address. And in this particular case, the
25 registrant for that address is Vianet Internet Solutions,

1 and they're a Canadian ISP. Their offices are in Sudbury,
2 Ontario.

3 Q. And during what period was Vianet the registrant for
4 the IP address 209.91.172.170?

5 A. There are two particular protocols for querying
6 registration information with regard to Internet addresses.
7 One is a "who is" query.

8 Q. Slow down, Mr. Emerson.

9 A. Sorry.

10 The newer form of query is a referred "who is" query,
11 and it's a newer protocol and designed to be more granular,
12 more detailed with regard to the type of information that
13 you can obtain by querying.

14 If we were to run a "who is" query, we would see very
15 simply that Vianet owns a block of addresses which I intend
16 to show you contains this particular address.

17 If we run a referred "who is" query, we see that Vianet
18 owned that address as early as 1997.

19 Q. Did you conduct the "who is" and referred "who is"
20 queries for the IP address 209.91.172.170?

21 A. Yes, sir.

22 Q. What did you learn?

23 A. I learned that Vianet was, as early as 1997, the
24 registered owner, according to ARIN, of that IP address.
25 And it was confirmed by the referred "who is" in more

1 detail.

2 Q. And were you able to take any steps to further narrow
3 the geographic source of posting from IP address
4 209.91.172.170?

5 A. First of all, the address is clearly inside of the
6 block assigned to this service provider.

7 The next step would be to determine generally what the
8 service provider's area of service is with regard to
9 defining their geography, where their infrastructure will
10 be, where the IP addresses will be.

11 Q. Before you move on to that, Mr. Emerson, explain what
12 you mean by a block of IP addresses.

13 A. If a computer is going to communicate with another
14 computer publicly over the Internet, it has to have a
15 routable, a public address. And in the case of a service
16 provider who's offering a range of services -- it might be
17 cable Internet access or DSL-style access to small offices
18 or to individuals, private homes -- they have to have
19 sufficient IP addresses to accommodate what they expect
20 their market to be in terms of use, their subscriber base.

21 Q. You were going to describe the steps you took to
22 determine the geographic scope of Vianet's services.

23 A. The very next thing that was done after we identified
24 the service provider was to actually run what's called a
25 trace route. That is very simply sending packets across

1 that route from my location to the address 209.91.172.170
2 and to look at the various hosts that are passing that
3 particular set of packets along to its destination. Those
4 hosts have naming conventions that reveal geography and the
5 path of that particular transmission.

6 So in this particular case, it appeared that Barrie,
7 Ontario was the actual location that the responses I was
8 getting was coming from inside Vianet's network.

9 The second thing that I did was I looked at databases
10 that specialize in geography in relationship to IP
11 addresses. Quova is a company that has a very large and
12 very reliable database that's used to assist online
13 merchants who are trying to avoid being defrauded by
14 Internet transactions where the actual location of the IP
15 address might set off a flag if it were to be incompatible
16 with the other information they received in that
17 transaction.

18 Quova's database -- and they collect information from a
19 lot of different sources with regard to geography across
20 their customer base where they see the presence of IP
21 addresses in a block. And they have technical ways to
22 collect data.

23 Quova also concurred that Barrie was the geographical
24 location for that IP address.

25 Q. Did you do -- withdrawn.

1 To your knowledge, did Ms. Coltharp of NagraStar,
2 EchoStar conduct any -- make any effort to identify the
3 geographic location of this same IP address?

4 A. Yes, sir, I believe so.

5 MR. EBERHART: Michael, could you show the witness
6 Exhibit 193-A.

7 BY MR. EBERHART:

8 Q. Mr. Emerson, what is Exhibit 193-A?

9 A. It's what I referred to already in testimony as a "who
10 is" lookup.

11 Q. And why don't you explain briefly what a "who is"
12 lookup is?

13 A. In this particular case, it appears here that the
14 provider of this tool is kloth.net, K-L-O-T-H.

15 Ms. Coltharp, or whoever actually ran this "who is," simply
16 used their tool online to put the IP address 209.91.172.170
17 through a query process. Ultimately this particular service
18 would have to query a "who is" lookup in ARIN's database.
19 ARIN is the authoritative database for this information.

20 Q. And, Mr. Emerson, does Exhibit 193-A indicate when this
21 search was run?

22 A. I'm sorry, I don't see a date indicated on the exhibit.

23 Q. I think you're probably looking at the first page of
24 the copy. If you look on the second page -- part of the
25 content is obscured on the first page by the exhibit

1 sticker.

2 A. The second page of the exhibit has February 22nd, 2001
3 annotated.

4 Q. And what did Ms. Coltharp find when she tried to locate
5 the geography from which the 209.91.172.170 IP address
6 originated?

7 A. Based on this exhibit, it appears that she was able to
8 determine the service provider that the IP address was
9 registered to and their location in Sudbury, Ontario.

10 Q. What was the name of that service provider?

11 A. Vianet Internet Solutions.

12 Q. Is that the same service provider that you found was
13 the registrant for this IP address?

14 A. Yes, sir, it is.

15 MR. EBERHART: Your Honor, defendants offer
16 Exhibit 193-A.

17 THE COURT: Any objection?

18 MS. WILLETTS: No, objection, Your Honor.

19 THE COURT: Received.

20 (Exhibit No. 193-A received in evidence.)

21 (Document displayed.)

22 BY MR. EBERHART:

23 Q. Mr. Emerson, Exhibit 193-A shows Vianet Internet
24 Solutions on 128 Larch Street, Suite 301, in Sudbury,
25 Ontario. Do you have any understanding as to operations

1 that Vianet might have in Sudbury?

2 A. Based on what they advertise publicly, this would be
3 their business offices.

4 Q. And how far is Sudbury from Barrie, Ontario?

5 A. I believe that I determined it was approximately
6 180 miles.

7 Q. Mr. Emerson, is it your opinion that the NiPpEr2000
8 posting originated from Barrie, Ontario?

9 A. Yes, sir, it is.

10 Q. And have you explained to us today the basis for that
11 opinion?

12 A. Yes, sir, I believe I have.

13 Q. And to your knowledge, did Peter Kuykendall of
14 NagraStar ever attempt to research the location of any of
15 the postings that are at issue in this litigation?

16 A. Based on evidence that I've reviewed, which is
17 originating from Mr. Kuykendall, he provided an e-mail with
18 what appeared to be a "pasting" of two Usenet postings
19 containing content that is similar to the NiPpEr2000 post.

20 MR. EBERHART: Okay. Michael, could you show the
21 witness Exhibit 206. It's already in evidence.

22 (Document displayed.)

23 BY MR. EBERHART:

24 Q. Mr. Emerson, you were in the courtroom when the jury
25 saw Mr. Kuykendall's video where he testified about

1 Exhibit 206, correct?

2 A. That's correct.

3 Q. And is this the e-mail from Mr. Kuykendall that you
4 reviewed and were mentioning a couple minutes ago?

5 A. Yes, sir, it is.

6 Q. Mr. Kuykendall's e-mail is dated January 9, 2004,
7 correct?

8 A. Yes, sir.

9 Q. And he references a Usenet search. What is a Usenet
10 search?

11 A. Usenet, U-S-E-N-E-T, is an environment which is more
12 commonly known as news groups. There's a number of ways to
13 access the topical portions where people post information,
14 much like a forum, into news group posting areas.

15 Q. And does Usenet -- withdrawn.

16 Does a search of Usenet enable you to identify an IP
17 address associated with a particular Usenet post?

18 A. A Usenet post, much like an e-mail, has a header with
19 information that was used to direct that particular content,
20 its origin, you know, its destination, basic information
21 that would be necessary to get it from point A to point B.
22 In Exhibit 206, there are headers depicted in addition to
23 the actual content that was posted.

24 Q. And does Exhibit 206 indicate an IP address for the
25 postings that are contained in that e-mail?

1 A. Yes, sir.

2 Q. Okay. And what is the IP address that's shown for
3 those postings?

4 A. 209.91.172.154.

5 Q. Have you been able to -- withdrawn.

6 Did Mr. Kuykendall make efforts to locate the geography
7 from which that IP address originated?

8 A. He uses the terminology that the address that we're
9 discussing resolves to Ontario, Canada.

10 Q. Okay. And these -- the content in Exhibit 206, this is
11 not the NiPpEr2000 posting, is it?

12 A. The content's similar to the NiPpEr2000 posting;
13 however, there's additional content there with regard to
14 text, and it appears to be a pasting of content from some
15 other location.

16 Q. And what is the additional content that's contained in
17 Exhibit 206?

18 A. At the top of the post -- would you like me to read it?

19 Q. Sure.

20 A. "Charlie, please fry these cards. We don't know how to
21 unloop yet!" That was not in the NiPpEr2000 post. From
22 there down it seems to be consistent with the NiPpEr2000
23 post until we get to the very bottom of the post where there
24 is some information, almost a salutation or a footer on the
25 post that is sent via deja.dot.com and then a uniform

1 resource locator, or URL, for that particular website.

2 Q. Now, Mr. Kuykendall indicated in his e-mail that the IP
3 address currently resolves to Ontario, Canada. Did he also
4 indicate a particular service provider in Ontario?

5 A. There is a host name that follows what I read earlier
6 about resolving to Ontario that indicates Vianet as the
7 service provider in the domain.

8 Q. And were you able to determine whether the IP address
9 shown in Exhibit 206 is also part of the IP address block
10 registered to Vianet?

11 A. Yes, it was clearly in the block.

12 MR. EBERHART: Charlie, could you put up the
13 next-to-last slide from the demonstration.

14 BY MR. EBERHART:

15 Q. And looking at the demonstrative that you showed the
16 jury a few minutes ago, could you tell the jury what the
17 range was for Vianet's assigned block of IP addresses?

18 A. Well, there are different classes of blocks of IP's.
19 Vianet has what is termed a "class B," a portion of a
20 class B block. And the way that a class, a block of IP's is
21 determined is based on where the network address stops and
22 where the addressing begins for the particular computer or
23 device that uses the address.

24 In the case of the larger block for Vianet, the network
25 address stops at 209.91, which points to us that -- points

1 out to us that it's part of a class B block.

2 In this particular case the address from the header in
3 Exhibit 206 is in the same class C block, much closer, only
4 255 opportunities there for deviation. And 170 and 154 is
5 the mere difference between the two addresses.

6 Q. And so am I correct to understand that Vianet had
7 registered all of the IP addresses between 209.91.128.0 and
8 209.91.191.255?

9 A. Yes, sir, that's correct.

10 Q. And that's what's shown in your demonstrative?

11 A. It is.

12 Q. And the IP address shown on Exhibit 206 falls inside of
13 that range registered to Vianet?

14 A. It does.

15 Q. And looking at page 5 of Exhibit 2006.

16 THE COURT: Just to be sure, you mean Exhibit 206?

17 MR. EBERHART: I do, Your Honor.

18 THE COURT: All right. And that means that the
19 154 falls within.

20 MR. EBERHART: Yes, Your Honor.

21 THE COURT: Thank you.

22 BY MR. EBERHART:

23 Q. Okay. Looking at page 5 of Exhibit 206 near the
24 bottom, what is the text that begins near the bottom of that
25 page?

1 A. Well, that appears to be a second Usenet header.

2 Q. And what does that indicate to you?

3 A. There were, based on the news group annotation in that
4 header, two unique postings here.

5 Q. And those are two unique postings that contain the
6 substance of the NiPpEr2000 post?

7 A. With the additions described already.

8 Q. And what is the time and date on which these two
9 postings to Usenet were made?

10 A. They were both made on 24 December, the year 2000. One
11 was made at 15:32 GMT, and one was made at 15:06:39 GMT,
12 fairly close.

13 Q. And this second post that begins on page 5 of
14 Exhibit 206, does that have the same originating IP address
15 as the first post that's shown on page 1 of Exhibit 206?

16 A. They're identical in the headers.

17 Q. So that also is an IP address that resolves to Vianet?

18 A. Yes, sir.

19 Q. Now, you testified earlier that Vianet had their
20 offices in Sudbury, Ontario, correct?

21 A. Yes, sir.

22 Q. And is that corporate office location consistent with a
23 user who resided in Barrie, Ontario?

24 A. It's consistent with what they advertise as their
25 service area.

1 Q. Okay. Now, other than the IP address that you located
2 for the NiPpEr2000 posting, did you find any other
3 information about NiPpEr2000 in the data that is held by
4 ICG?

5 A. Yes, sir, I did.

6 Q. What did you find?

7 A. I found a user record. The way that the website was
8 designed, the database had a separate table to catalog
9 information for registered users. And in that table there
10 was a record for NiPpEr2000, the user name NiPpEr2000.

11 Q. What sort of information was contained in that user
12 record?

13 A. I can't recall off the top of my head. Everything
14 but -- as examples, I'll give you -- there was a user ID for
15 that user record. There was an e-mail address for that user
16 record. There would have been a date that the user joined
17 that website, registered for that website. There would have
18 been a date that they last posted on the website. There
19 would have been a date that they were last active on the
20 website. And there could have been a range of other
21 settings with regard to the personal profile information
22 regarding that particular account.

23 Q. And what was the e-mail address shown for the
24 NiPpEr2000 registration?

25 A. As I recall, it was ChrisVon@s4.interpass.com.

1 Q. And what is interpass.com?

2 A. They appear to be a service provider that's no longer
3 in business.

4 Q. Do you have any understanding of what Interpass offered
5 back in the year 2000?

6 A. They offered e-mail service. They offered Internet
7 access.

8 Q. And where was Interpass located in the year 2000?

9 A. Based on WebCache on the Internet, they appear to have
10 had their offices in Ottawa.

11 Q. And that's Ottawa, Ontario?

12 A. Yes, sir.

13 Q. What did the information on the NiPpEr2000 account
14 indicate for a creation date for that user name?

15 A. I don't have that information in front of me. If I
16 could refer to my report or -- I don't know that off the top
17 of my head.

18 Q. Okay.

19 MR. EBERHART: May I approach, Your Honor?

20 THE COURT: You may.

21 BY MR. EBERHART:

22 Q. I've handed you what's marked as Exhibit 2055.

23 Looking at Exhibit 2055, are you able to determine the
24 date the NiPpEr2000 account was created?

25 A. Yes, sir.

1 Q. What is that date?

2 A. The -- it's referred to as a "join date" in the user
3 record. That's the specific name for the field in the user
4 table. And the date was December 24th, 2000. And the time
5 is 8:23:53.

6 Q. And is that -- can you determine whether that's shown
7 in GMT or some other time zone?

8 A. This is calculated in GMT. This date as it's presented
9 in this report was derived from a different format in their
10 database and calculated.

11 Q. Were you able to determine the date on which the
12 NiPpEr2000 address was -- withdrawn -- the NiPpEr2000 user
13 registration was last used?

14 A. The last post date was the year 2000, December 24th,
15 and the time is 8:26:29, or under 3 minutes after the
16 account was created.

17 Q. So the account was created and then it was used only
18 3 minutes later -- withdrawn.

19 So the account was created. It was used up until a
20 period that ended three minutes later, and according to the
21 records you obtained, it was never used again?

22 A. Yes, sir, that's correct.

23 Q. And does this record indicate how many posts were made
24 with this account?

25 A. Yes, sir. There was a single post made.

1 Q. So only one post was made using this account?

2 A. That's correct.

3 Q. Now, did you search Pirate Base for other occurrences
4 of the e-mail address that was associated with the
5 NiPpEr2000 registration?

6 A. Yes, sir.

7 Q. And what did you find?

8 A. I found no other instances of that address in our
9 database.

10 Q. Now, you also testified earlier about looking at
11 certain aliases that were listed in the Fourth Amended
12 Complaint.

13 What did you do to research those aliases?

14 A. The aliases were searched in a broad fashion. So if
15 Nipper would have been one of those aliases, it would have
16 been searched in an open sense with a wild card attached to
17 the search so that Nipper followed by anything would return
18 in the search. It was searched that way as an e-mail
19 address; it was searched that way as a user name. That's
20 one example.

21 Q. And you obtained that list of addresses by looking at
22 the Plaintiff's Fourth Amended Complaint, correct?

23 A. Yes, sir.

24 Q. And what did you determine by conducting those
25 searches?

1 A. I determined that there were 149 matches from our
2 database for the searches related to that set of words in
3 the complaint. And of those 149 matches, 126 of them we
4 recovered IP addresses for.

5 MR. EBERHART: Michael, could you show the witness
6 Exhibit 726-D.

7 BY MR. EBERHART:

8 Q. What is Exhibit 726-D, Mr. Emerson?

9 A. This was an exhibit that I produced that reflects the
10 results of those searches that I just described.

11 MR. EBERHART: Your Honor, defendants offer
12 Exhibit 726-D.

13 THE COURT: Any objection?

14 MS. WILLETTS: No, objection, Your Honor.

15 THE COURT: Received.

16 (Exhibit No. 726-D received in evidence.)

17 (Document displayed.)

18 BY MR. EBERHART:

19 Q. Taking a look at the top line on the first page of
20 Exhibit 726-D, what information is laid out in the different
21 columns of this exhibit?

22 A. The first column is an annotated website. It's, in
23 fact, the database that the match was found inside of. And
24 it relates to a particular pirate website.

25 Then you'll find the user name that was recovered from

1 the user table from that website, then the user ID, a unique
2 numerical ID assigned in the user table, then an IP address
3 where one was recovered.

4 And then there's a column that I populated based on the
5 same process that's already been described for the
6 NiPpEr2000 post for geographic location for that particular
7 IP address. Then there's a "join date" field where that
8 particular user account was registered to that particular
9 site.

10 There's a field called "last post," which, had there
11 been any posts, there would be a date in that field
12 according to the way the databases were administered. If
13 it's annotated "never," it's an indication to make it easy
14 to understand that there had been no posts recorded for that
15 particular user account.

16 There's a date field for the last time that user
17 account is attributed to visiting that site. And then
18 finally there's an e-mail address field for the e-mail
19 address which was in the user record for that particular
20 user name.

21 Q. Let's take as an example the first entry. Please
22 explain to the jury what it shows for the user name xbr21.

23 A. PirateDen, "PD," stands for PirateDen, the underscore
24 and then members. This was the database, which is different
25 from DSS Chat. This was their paid membership, private

1 membership portion of the PirateDen website. That database
2 showed a user xbr21 having that user name.

3 There's a user ID of 7619. There's an IP address
4 208.190.208.242. My geographical location for that address
5 is St. Louis, Missouri. There's a join date for that user
6 of March 16, 2001, 20:50. It indicates that that user does
7 not have a record of posting as that account is recorded.

8 The last visit for that user is recorded as
9 November 2nd, 2001, 2:9. And the e-mail address -- I'll
10 spell it -- is A-C-T-A-R-U-S, actarus@swbell.net.

11 Q. Now, are you aware that an individual named Marco Pizzo
12 from St. Louis, Missouri came in here earlier in the trial
13 and testified that he was xbr21?

14 A. I learned that yesterday.

15 Q. Did your review of the alleged aliases contained in the
16 Fourth Amended Complaint indicate to you that more than one
17 person was using some of these aliases?

18 A. There are indications, based on geographical dispersion
19 and based on the diversity of e-mail addresses, that there's
20 a good likelihood that for some of the aliases, multiple
21 individuals were operating with those aliases.

22 Q. In your experience, is a user name a reliable way to
23 identify a particular individual?

24 A. With regard to the pirate sites that we have evidence
25 for, the user controls exclusively what that user name is.

1 So if I were to register for PirateDen, I could
2 register for PirateDen as George Bush, and I would be George
3 Bush on that site, assuming that no one else had already had
4 a claim on that particular screen name.

5 Q. Let's take a look at page 2 of Exhibit 726-D. I'll
6 remind you that the front page is duplicated.

7 A. Thank you.

8 Q. Look for the stamp at the bottom. Looking near the
9 bottom of that page, do you see several registrations for
10 someone using an e-mail address nipper@isys.ca?

11 A. I do, yes.

12 Q. And where do those --

13 (Document displayed.)

14 BY MR. EBERHART:

15 Q. Are there IP addresses associated with those Nipper
16 e-mail addresses?

17 A. There are, looks like, two unique IP addresses.

18 Q. And where do those IP addresses resolve?

19 A. Sudbury, Ontario.

20 Q. One of those user names that was registered with the
21 nipper@isys.ca address is silverdaddy, correct?

22 THE COURT: Counsel, could you give us a page
23 number? Is it 726-D 001?

24 MR. EBERHART: 002, Your Honor.

25 THE COURT: 002. Just a moment.

1 MR. EBERHART: And we're about three quarters down
2 the page.

3 THE COURT: Thank you.

4 BY MR. EBERHART:

5 Q. So one of the user names that was registered using
6 nipper@isys.ca is silverdaddy, correct?

7 A. Yes, sir.

8 Q. And what site was that registered on?

9 A. The annotation there in column one is "decoder." The
10 site was actually "Decoder News."

11 Q. And do you see silverdaddy registering more than once
12 on this page?

13 A. I see silverdaddy at least three times on this page.

14 Q. Okay. And each time silverdaddy uses either
15 nipper@isys.ca or nipper@sprint.ca as the e-mail address?

16 A. That's correct.

17 Q. And the ".ca," what does that signify in an e-mail
18 address?

19 A. Canada.

20 Q. Are you aware that Ron Ereiser used the nickname
21 "silver"?

22 A. I'm not personally aware that that's the case.

23 Q. Having examined these aliases in Pirate Base data and
24 other data that ICG possesses, did you form any opinions
25 about whether these aliases were connected to Chris

1 Tarnovsky?

2 A. First of all, across the span of information that we
3 recovered from these searches, the most reliable piece of
4 information appears to be the IP address. It's the only
5 piece of information that the user does not have direct
6 control over. It's assigned as a process of a connection.

7 The second issue for me is, based on what limited
8 knowledge I had of the individual Chris Tarnovsky stated in
9 the claim, I don't have any information here to tie
10 authoritatively to Chris Tarnovsky.

11 MR. EBERHART: Michael, could you show the witness
12 Exhibit 511-A, please.

13 BY MR. EBERHART:

14 Q. Before we get to that, Mr. Emerson, in all the
15 materials you reviewed, did you see any connection between
16 Mr. Tarnovsky and the NiPpEr2000 posting?

17 A. No, sir.

18 Q. Have you seen Exhibit 511-A before, sir?

19 (Document displayed.)

20 THE WITNESS: To be honest, I think the first time
21 I saw this was yesterday.

22 BY MR. EBERHART:

23 Q. Okay. Now, did you do searches on the phrase "there
24 will be no boxes anymore"?

25 A. Yes, sir.

1 Q. And you searched that across the data that ICG
2 possesses?

3 A. I did, yes.

4 Q. Were you able to find this posting in the databases
5 that ICG possesses?

6 A. The content of this post, I believe, I found multiple
7 times within the database.

8 Q. Did you find this content as posted by xbr21?

9 A. Not in the context of this site, dr7.

10 Q. And that's because you don't have the dr7 database,
11 correct?

12 A. That's exactly the case.

13 Q. So were you able to determine any IP address that was
14 associated with the xbr21 posting on dr7?

15 A. No, sir. We have no evidence related to dr7.

16 MR. EBERHART: Pass the witness.

17 THE COURT: All right. Why don't we go to lunch.
18 We'll resume at 1:00 o'clock.

19 You're admonished not to discuss this matter
20 amongst yourselves nor to form or express any opinion
21 concerning this case.

22 Have a nice recess.

23 Okay. Counsel, 1:00 o'clock.

24 (Lunch recess held at 12:05 p.m.)

25 (Further proceedings reported in Volume II.)

1 -oOo-

2
3 CERTIFICATE

4
5 I hereby certify that pursuant to Section 753,
6 Title 28, United States Code, the foregoing is a true and
7 correct transcript of the stenographically reported
8 proceedings held in the above-entitled matter and that the
9 transcript page format is in conformance with the
10 regulations of the Judicial Conference of the United States.

11
12 Date: April 30, 2008

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15 _____
16 DEBBIE GALE, U.S. COURT REPORTER

17 CSR NO. 9472, RPR
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