

# Exhibit H

1 IN THE UNITED STATES DISTRICT COURT  
2 FOR THE EASTERN DISTRICT OF TEXAS  
3 TYLER DIVISION

3 WI-LAN, INC. )  
4 ) DOCKET NO. 6:10cv521  
5 -vs- )  
6 ALCATEL-LUCENT USA, INC., ) Tyler, Texas  
7 ET AL ) 8:51 a.m.  
8 ) July 8, 2013

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8 WI-LAN, INC. )  
9 ) DOCKET NO. 6:10cv252  
10 -vs- )  
11 HTC CORPORATION,  
12 ET AL )  
13

14 TRANSCRIPT OF TRIAL  
15 MORNING SESSION  
16 BEFORE THE HONORABLE LEONARD DAVIS,  
17 UNITED STATES CHIEF DISTRICT JUDGE, AND A JURY

18  
19  
20 COURT REPORTERS: MS. SHEA SLOAN  
21 MS. JUDY WERLINGER  
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23  
24 Proceedings taken by Machine Stenotype; transcript was  
25 produced by a Computer.

1 same services, but to be able to be delivered to  
2 customers without having to run all the wires.

3           After all, it's very expensive to dig up  
4 streets and lay down wires and do those things. I just  
5 lived through Hurricane Sandy, and I watched my entire  
6 neighborhood get rewired over a 10-day period. So I can  
7 attest to the fact that it's very painful to install  
8 wired infrastructure. And that wireless is -- the only  
9 thing I worked on for 10 days during Sandy was my cell  
10 phone. And I was lucky that my tower was up.

11       Q.    So let's go to the solution that you came up  
12 with.

13           And what was the name of the product that  
14 replaced the AS-60 just so we're using the right  
15 terminology?

16       A.    Initially, it was called that AS-600, but I  
17 think it was re-branded to the AS-4000.

18       Q.    All right. So we'll refer to the system you  
19 came up with as the AS-4000; is that all right?

20       A.    That's fine.

21       Q.    So in the AS-4000, did -- did you and Martin  
22 decide to use dedicated code channels on a  
23 user-dedicated basis?

24       A.    No, we didn't. We were basing the use of  
25 codes on the type of data that was being transmitted,

1 the availability within the space of code in time. We  
2 used the -- you were introduced to this. We used both  
3 the combination of codes, of variable lengths of those  
4 codes using Walsh functions to make that happen, and in  
5 time, so time slots.

6 So the idea was we would look at the data and  
7 what was going on in the system, and we would schedule  
8 those based on what was happening. So it was all -- you  
9 know, all three of those elements that were really  
10 important in the patent. That was a large difference  
11 from what was available in the day or what people were  
12 working on.

13 You'll see people talk about variable codes  
14 but not variable time. Time but not variable codes. We  
15 were working on all three of those aspects at that time.

16 Q. All right. Well, let's look at one of the  
17 figures from your patent.

18 A. Do we need to erase this?

19 Q. I got it.

20 A. Thank you.

21 Q. And so this is Figure 15A from your '326  
22 patent. Is this what you're talking about in terms of  
23 sharing the resources across codes and time?

24 A. Yeah. Let's -- if everybody on the jury can  
25 take a look, this space across here (indicating) is the

1 code space, okay? And each one of these vertical lines  
2 is both -- is a code that's being used over time. You  
3 can see time is being ticked off over here, okay?

4           Then within this timeframe, you can subdivide  
5 it into smaller fragments of data or larger fragments of  
6 data, okay? And even you can subdivide it using the  
7 orthogonal codes into short codes here. Each of them  
8 has a purpose in the system.

9           The flexibility allows you to -- for example,  
10 the very small ones can be used for voice calls. If I  
11 had one of our older systems, we could nail up a channel  
12 just like you see here. And then we could send a fax,  
13 like you see right here (indicating), okay?

14           The idea behind this whole thing was a degree  
15 of flexibility, because there were many types of data.  
16 And in some cases, our customers might be doing two  
17 phone calls, sending a fax, because they had a third  
18 line, and running two or three computers. And they may  
19 add another computer.

20           So it really was never based on what the  
21 customer actually had as a quality of service or  
22 business service level. That's something different.  
23 That's at a higher level, that business-level decision  
24 of how much data or how many channels you could get.

25           What was really taken a look at -- because

1 this is a radio system and we were worried about it at  
2 the radio level -- is how do we put all this together  
3 and service all those different kinds of users, some of  
4 which we never even knew of?

5           No one was streaming video back in 1995, okay?  
6 No one was even looking at that. You might have  
7 downloaded a video file, but you never streamed it. You  
8 didn't stream audio at the time, yet all those  
9 capabilities are possible with the way we developed  
10 this -- this product, okay?

11       Q. All right. So let's -- let's take a couple of  
12 those things, because I want to understand how your  
13 system worked.

14       A. Okay.

15       Q. If I was connected to the DSC system, could I  
16 receive a fax and an e-mail at the same time on my  
17 system?

18       A. Yes.

19       Q. And how would the system do that? Would it  
20 assign me multiple codes, multiple time channels? How  
21 did it work?

22       A. It could do it either way. It could assign  
23 you multiple codes, if the only resources you had left  
24 were small time slots and just codes.

25           It can also assign you a larger amount of code

1 or, again, a medium amount, say like what we have here.  
2 Several of these channels together can be put together.  
3 And the scheduling is almost unlimited.

4           In practicality, we came up with rules that  
5 made sense to pack these things. Again, the efficiency  
6 and use is important, but you had a trade-off. You  
7 could do things in time or in code space, and that  
8 allows you to be very efficient in how you used the  
9 Spectrum.

10       Q. Now, sir, you heard this morning a discussion  
11 of the concept of TDMA.

12       A. Yes.

13       Q. Did you hear that?

14       A. Yes, I did.

15       Q. And do you -- could you explain to the jury or  
16 state for the jury, what does TDMA stand for?

17       A. Time division multiple access.

18       Q. And at the time, in 1995, were you aware of  
19 TDMA systems that were in the marketplace?

20       A. Yes. In fact, TDMA systems on wired networks  
21 had been in existence for over 30 years. So T --

22       Q. I'm sorry.

23       A. I mean, TDMA has been available for a very  
24 long time.

25       Q. All right. And in the TDMA systems that

1 you're aware of or were aware of in 1995, were they like  
2 the -- the dedicated locked-up channel CDMA approach, in  
3 that they gave dedicated time slots; or were they  
4 flexible and they could just assign any old time slot at  
5 any instant in time?

6       A.    It depended on the system.  Most of the  
7 systems at the time were fixed-channel allocation.  
8 In the wireless side, they did allow -- they fixed that  
9 you got it for a certain period of time until your phone  
10 call went off, and they were allocating it in that  
11 manner.

12            But in general, it was always a fixed slot,  
13 never variable on a frame-by-frame basis from the start  
14 of your need 'til the end of your need.  So it was  
15 always a very fixed, regimented -- every frame, you got  
16 a slot; this is your time slot.  We didn't look at  
17 anything else.  You're sending voice.  You know, that's  
18 it.

19            Or if you had -- remember back in the day, we  
20 were all on AOL.  So if you had a time slot on a wired  
21 system, you got a slot.  You connected your modem, the  
22 thing that chirped and buzzed and then finally gave you  
23 a really slow e-mail.  And that was dedicated to you.  
24 So that's how the systems worked then.  They were very  
25 regimented in their use of time.



1 Q. All right. So in your system, you used  
2 something called TDM techniques.

3 Was that -- was that the same as the TDMA  
4 systems that you just described?

5 A. No, it's not, because the idea behind it was  
6 this flexibility from frame-to-frame-to-frame. I could  
7 allocate all the time across, you know, one code to  
8 somebody. I could allocate half of the time. I  
9 could -- you know, allocate just one -- one small --  
10 there's always a smallest time segment you could do.  
11 You could allocate that.

12 So we had flexibility on a frame-by-frame  
13 basis to the user, you know, that we're going to. We  
14 had the ability to change and adapt that data. And that  
15 was especially important, because that user may suddenly  
16 turn on and start using the Internet while they were  
17 doing a phone call, or a second phone call may have come  
18 in on their second phone line, or, you know, let's face  
19 it.

20 There are a lot of different things. You may  
21 have had two or three different kids on their computers  
22 goofing around. That's kind of the point of it. We  
23 were always looking at the data requests and then  
24 allocating on-demand need. So it's using TDM, but it's  
25 not really TDMA. So we need to separate those two

1 concepts. They are very different.

2 Q. All right. Why was your system a more  
3 efficient technique than using either the dedicated time  
4 slots or the dedicated channels of the systems that you  
5 were replacing?

6 A. Well, first of all, the types of data had  
7 different needs for their regularity of needing time.  
8 Like your voice, you kind of need a regular pace for two  
9 people to carry a phone conversation. So you get a very  
10 regular allocation of data.

11 But you did something like a fax, that's kind  
12 of a large burst over a certain period of time. If  
13 you're doing the Internet, we're all familiar with this.  
14 You type a URL in. Then the webpage comes up. So  
15 there's a big burst of activity. Then you're doing  
16 nothing. You're kind of scrolling or reading the  
17 webpage, and all that data is in front of you.

18 So, you know, again, I hope I'm not  
19 circumventing the question, but it had a great ability  
20 to allow us to make the most use of the radio resources  
21 that we had.

22 Q. All right. Why did you -- you said that you  
23 based your decision on how to allocate the bandwidth  
24 whether by codes or time. You said you made that  
25 decision based upon the characteristics of the data --

1 A. Correct.

2 Q. -- that was being sent?

3 A. Correct.

4 Q. Why did you not base it on the characteristics  
5 of the user?

6 A. Because the users that we saw, you know,  
7 coming in the future -- and if you pull out your cell  
8 phone and you realize it -- you know, 20 years ago, you  
9 couldn't build this. This is a miniaturization of three  
10 or four devices all put into one, right?

11 And today you use it and you may be using a  
12 map while you're talking to somebody on your Bluetooth  
13 earpiece. How many of you have been driving and kind of  
14 using this to do navigation while you're trying to find  
15 someplace you haven't been before, like a restaurant in  
16 town?

17 The issue ending up being is that you can't  
18 just say what the user is doing. The user may be doing  
19 many things. So it's the many things; it's the many  
20 activities that are important. It's not that it's Joe.  
21 Joe just doesn't do one thing. Joe may be doing  
22 multiple things, and Joe may be doing nothing.

23 It's really important to be able to look at  
24 just what the services Joe needs and divide that up.

25 A very interesting concept at the time.

1 People were not thinking that way, but we were solving a  
2 problem immediately in that roll-out of the Internet.  
3 So we had to face that problem about a decade  
4 earlier than any device could handle it or think about  
5 it, so...

6 Q. All right. Let me draw your attention now to  
7 another figure from the patent which is Figure 9B.

8 Do you see that?

9 A. Yes.

10 Q. In the description of the patent says that  
11 this is an example of a fully loaded version of your  
12 system.

13 Can you describe that for us, please?

14 A. Yeah. Again, you have the code space. And  
15 here now, you're using the smallest time slots  
16 everywhere. And what this looks like and what this can  
17 be used for is two things.

18 One, many users making phone calls. My  
19 favorite version of this and the discussions we had were  
20 national -- a national disaster. Many people calling  
21 911, okay?

22 You would divide everything up, and this made  
23 sure that you had all of this as voice conversations, or  
24 it could also be many voice conversations and some very  
25 low-rate data getting through.