

1 completely taken out.

2 MR. SRINIVASA: Are you still
3 providing cable TV service through the same
4 fiber?

5 MR. KUBES: No, sir. We did not
6 provide cable TV service upon termination of the
7 trial. All the TV service was terminated.

8 MR. SRINIVASA: So essentially
9 this optical network unit is providing basic
10 telephone service?

11 MR. KUBES: That's correct, sir.

12 MS. LOPEZ: Ann Lopez, for
13 Rhythms. But their affiliate is providing DSL.
14 Is that correct?

15 MR. BROWN: No. Actually, we are
16 not. We're not able to provide it either.

17 MS. GENTRY: If I can clarify
18 that. You have the existing customer base that
19 was grandfathered or transferred to you at the
20 end of May.

21 MR. BROWN: We did transfer the
22 embedded base. That was a requirement of the
23 merger conditions, but we find ourselves in the
24 same situation that the unaffiliated CLECs are.

25 MS. GENTRY: Let's talk about the

1 end user and where they are sitting, then. No
2 one -- supposedly from what we are hearing right
3 now, no one can sell them DSL until some
4 remedy -- and we need to talk a little bit more
5 about the timeline. You shared six months, and
6 we need to figure out what happens in that time
7 frame. So let's set that one aside for a
8 minute.

9 We have 30,000 customers, and then
10 whatever new subdivisions you're putting in and
11 a technology that is antiquated. You've
12 acknowledged that. You have a limited amount of
13 CPE available and it's at an exceptionally high
14 price.

15 This is one of the more
16 technology-driven areas in the State of Texas,
17 and they can't have DSL from anybody for an
18 unlimited period of time. I guess I have an
19 issue. Not only can I not sell to them, but
20 they can't even buy the technology that
21 everybody wishes.

22 The fact that you're continuing to
23 deploy that instead of deploying Pronto, now,
24 I'm still at a loss. I mean, I'm not advocating
25 Pronto, but I'm saying at least somebody can

1 have access to them. Now help me understand.

2 What time frame are you doing what in?

3 Are you going to make those boxes available for

4 interim, the CPE boxes, or are you cutting

5 straight to Pronto?

6 MR. KUBES: This is George Kubes.

7 Pronto will be going into those other 10,000

8 customers that you refer to from that original

9 press release, and those are not physically

10 served by the fiber to the home or --

11 correction -- fiber to the curb technologies.

12 The other areas we keep talking about

13 are completely lacking copper feeder facilities,

14 and the modems are the modems that work with the

15 system. There are unfortunately a very unique

16 set of parameters on these particular modems,

17 and there is no way around that issue.

18 So until we can get a long-term

19 solution -- and we do have a team in place

20 evaluating alternatives. What we're looking at

21 is the ability to provide an open architecture

22 similar to Pronto by placing the OCD, or optical

23 concentration device, and then working on some

24 sort of a broadband service similar to what is

25 available through the Pronto to provide that

1 access.

2 That still does, as you've accurately
3 pointed out, leave the issue of the CPE modem.
4 That's one that I'm not sure how we can solve.

5 MR. SRINIVASA: Now, the ONUs that
6 are placed at the curb site, how many
7 residential customers or how many customer
8 premises does it go -- from the ONU on the other
9 side of that it's got to be some sort of copper
10 media. Right?

11 MR. KUBES: Yes, sir.

12 MR. SRINIVASA: How many
13 subscribers are served out of each ONU?

14 MR. KUBES: Each ONU has typically
15 16 to 20 living units or subscribers. Typically
16 16.

17 MR. SRINIVASA: Up to that ONU,
18 it's fiber. From the ONU to the subscriber it
19 is copper. Only 16 ohms are served off of each
20 ONU. There is no way you can install additional
21 copper facilities over to that area so you can
22 maximize the number of subscribers that are
23 going to be served off of the ONU?

24 MR. KUBES: No, sir. Because it's
25 fiber all the way to the ONU. The only copper

1 that is remaining that's usable is the drop
2 coming from the ONU to the back of the home
3 where there is a terminal point.

4 It's a buried splice. And from there,
5 the drop is extended across the property line to
6 the network interface device on the rear of the
7 home. That's the only copper in this network.

8 MR. DRAKE: William Drake,
9 WorldCom. Mr. Armstrong, the signal from ONU to
10 the CO, is that a packet or cell-based signal?
11 Is the voice changed to packet or cell?

12 MR. ARMSTRONG: Lou Armstrong,
13 Lucent. It is packet on the DSL side, and it is
14 TDM on the voice side, and it's frequency
15 multiplexed onto the fiber.

16 MR. DRAKE: So it's TDM from the
17 house to the ONU?

18 MR. ARMSTRONG: No. From the ONU
19 to the house it's analog, just like DSL is now.

20 The lower band analog on the upper
21 band, it is a form of DSL. VDSL is a generic
22 term that you might use to describe it.

23 Those are frequency multiplexed
24 together on the copper pair. From the ONU
25 upstream it is TDM multiplexed, keeping the cell

1 ATM structure on the DSL side.

2 The voice is not packet. So we have a
3 TDM structure for the voice and then packet for
4 the DSL multiplexed together onto the fiber.

5 MR. SRINIVASA: The TDM portion of
6 that, apparently the voice is digitized. It's
7 still like a D4 format?

8 MR. ARMSTRONG: Basically it's a
9 D4. It's like a 96 format, upstream from the
10 ONU or it is converted at the ONU to analog.

11 MR. SRINIVASA: So the
12 downstream --

13 MR. ARMSTRONG: Downstream towards
14 the customer.

15 MR. SRINIVASA: Now, again, the
16 frequency division is multiplexed, both the low
17 frequency band and the high frequency band for
18 the ADSL portion of that. This is only for the
19 analog digital subscriber line you're talking
20 about.

21 MR. ARMSTRONG: That's correct.

22 MR. SRINIVASA: What if someone
23 wants to provide -- well -- other forms of DSL?
24 It's just not possible with this technology?

25 MR. ARMSTRONG: We call it

1 generically DSL. It is not ADSL. Strictly
2 speaking it is closer to what is described as
3 VDSL, which interestingly enough is very recent
4 technology. It has a much higher rate
5 capability than ADSL.

6 MR. SRINIVASA: They are frequency
7 division multiplexed. That means it goes on the
8 same pair of wire on the higher band?

9 MR. ARMSTRONG: Yes.

10 MR. SRINIVASA: But it is not
11 necessarily asymmetric.

12 MR. ARMSTRONG: It's not
13 asymmetric -- not necessarily asymmetric. It
14 can go on the twisted pair. I believe they are
15 not doing that.

16 MR. SRINIVASA: They are using a
17 separate pair? You have two dropped pairs to
18 each end-use customer. So you're using one pair
19 exclusively for voice and the other pair -- that
20 means you are no longer frequency division
21 multiplexing. It's spatially separated.

22 MR. KUBES: This is George Kubes,
23 SBC. Yes, sir. The POTS or the voice -- basic
24 telephony goes in on one pair. The ADSL-like
25 service is brought in on another copper pair.

1 So they are separate at this point.
2 They are not a line-shared configuration as one
3 would think with a filter and the typical Pronto
4 architecture that we're deploying.

5 MR. SRINIVASA: Okay. Now, if
6 they are using separate pairs -- let's assume
7 that -- and it hits the ONU on one side. On the
8 upstream going back towards the HDT, which is
9 back in the central office, now, what you are
10 telling me is the voice portion is on a TDM,
11 like the conventional D4, and the DSL portion is
12 still packet.

13 MR. ARMSTRONG: That's correct.

14 MR. SRINIVASA: Okay. Then you
15 combine them onto the fiber?

16 MR. ARMSTRONG: Yes.

17 MR. SRINIVASA: It's modulated on
18 to one wavelength or --

19 MR. ARMSTRONG: They are
20 multiplexed onto one fiber. It is not WDM.
21 They are multiplexed electronically onto one
22 fiber.

23 MR. SRINIVASA: So it's just
24 modulated on the same one carrier, the optical
25 carrier.

1 MR. ARMSTRONG: That's correct.
2 It's two fibers if you want to be -- it's one
3 fiber. That's right.

4 MR. KUBES: Two fibers, transmit
5 and receive.

6 MR. SRINIVASA: Okay. Is that in
7 trial already? You are deploying that now? Is
8 it on trial? What's going on? If you can do
9 DSL, why are you not deploying it to new
10 customers?

11 MR. SANDS: This is Bob Sands,
12 Southwestern Bell. We are deploying the
13 technology to new customers.

14 The problem is, we can't provide --
15 because of the merger conditions we can't
16 provide that service to CLECs. That's what
17 we're working on right now, is an interim
18 solution so all the CLECs can provide DSL
19 service to their customers.

20 MR. SRINIVASA: If that trial is
21 successful and if you deploy that, what you're
22 proposing is, you are going to offer that on an
23 unbundled basis to the CLECs also? If, say, for
24 example, one of the end-use customers that's
25 served off of this -- you try out this

1 technology and it works, they decide that they
2 want to get the voice service from Southwestern
3 Bell but they don't want the DSL service from
4 ASI and they decide to go with somebody else --
5 you know, it could be Rhythms or IP -- are you
6 going to provide that on an unbundled basis to
7 them?

8 MR. SANDS: We don't know what our
9 final solution will be, the long-term solution.
10 We think that it will probably be a Pronto-like
11 service that we'll be offering with different
12 pricing.

13 And, again, we don't know what that
14 will be.

15 MR. SRINIVASA: So you have no
16 plans to go back and install copper cable to
17 those end-use customers.

18 MR. SANDS: No, we don't, not at
19 this time.

20 MR. SRINIVASA: How about to the
21 10,000 new customers that may be coming
22 on-board? Are you going to install both copper
23 in this technology, or are you going to deploy
24 only one, this new technology?

25 MR. SANDS: The new customers in

1 the new subdivisions we are going to continue
2 placing the fiber. And, again, like Mr. Kubes
3 said, we already have that plant out there, the
4 HDTs and the fiber, planned for that vacant
5 land, and we're going to continue placing the
6 fiber and the ONUs to the new subdivisions, to
7 the new customers.

8 MR. SRINIVASA: Do you have
9 multiple fibers coming from -- I'm talking about
10 fiber optic cables -- from each ONU back to the
11 HDT, or is it multiplexed somewhere that you
12 will only have two fibers coming back?

13 MR. KUBES: Could you repeat the
14 question, sir?

15 MR. SRINIVASA: Okay. Apparently
16 you have ONUs deployed, and all of the ONUs
17 communicate with the HDT, and the media for
18 communication between the HDT and the ONUs is
19 the fiber optic.

20 Do you have dedicated, either for
21 transmit and receive, two fibers -- let's assume
22 that these are on separate fiber strands -- to
23 each ONU, or do you have some intermediate point
24 where you aggregate all of this optical traffic,
25 somewhere you multiplex it up, and then send it

1 on two fibers back to the HDT?

2 MR. KUBES: Okay, sir. The
3 architecture, again, leaving from the home -- if
4 I may take it all the way through, maybe that
5 will help, because I think we've been talking
6 about it in pieces, and I'm even getting a
7 little confused.

8 When we start at the living unit, we
9 have two copper pairs for the service. The
10 first one is for POTS. The second one would be
11 for the DSL service. They come into the ONU.
12 They are multiplexed together. On a TDM basis,
13 the D4 is for the POTS. The ATM/TDM
14 configuration would be carrying the data.

15 It's broadcast or transmitted back up
16 on a transmit or receive fiber, depending on
17 which way you're going, to the HDT. At the HDT,
18 the voice is pulled off and transferred to a
19 standard T1/DS1-type transport SONET back to the
20 central office to be integrated to the Class 5
21 digital switch. That is on a GR303 access.

22 MR. SRINIVASA: Are all HDTs
23 located in the central office, or are they
24 distributed out in the field?

25 MR. KUBES: No. They are in the

1 field. HDTs are located either at HUTs, CEVs --
2 predominantly CEVs in Richardson because of
3 limitations of the city -- and in the central
4 office.

5 MR. SRINIVASA: How far away are
6 those HDTs? From an ONU how far is it?

7 MR. KUBES: Typically an HDT to an
8 ONU is about --

9 MR. ARMSTRONG: Less than 6K.

10 MR. KUBES: Yeah, roughly 6,000
11 feet. And, again, there's no copper either in
12 the feeder or in the distribution plant to
13 support telephony services. All the services
14 ride the fiber, and that includes those
15 emanating from the central office, because even
16 a home that might be three or 4,000 feet from
17 the central office which would have
18 traditionally been served by copper have been
19 cut off and they are on the fiber system with an
20 HDT located at the central office.

21 So it's a complete 100 percent fiber
22 network.

23 MR. SRINIVASA: What I'm trying to
24 understand is, if a new subdivision is added or
25 a new subscriber server being added on to that,

1 why are you deploying new HDT out there?

2 If you already have an existing HDT
3 where you have the fiber, is it possible to
4 extend copper to those subscribers and have a
5 Pronto-like device at that point?

6 MR. KUBES: No, sir. It is not
7 possible, because these new subscribers and new
8 subdivisions are growing further out greater
9 than 12,000 kilofeet from the office typically.

10 I'm not going to say there aren't any
11 new subdivisions, you know, close to a central
12 office. But what we've seen in Richardson
13 typically is, this is the newer growth. It's
14 further away from the central office.

15 It's greater than in some situations
16 the 12 to 17,000 feet yellow zone that we
17 typically refer to. And in this case, again,
18 I've got an HDT that was programmed, because
19 we've seen this coming. The CEV was placed.
20 The HDT may or may not have actually been
21 installed but the structure is there. The
22 infrastructure is in place to support it.

23 We do not have any copper going out
24 because it would be too costly to go from the
25 central office to 18 or 20,000 kilofeet out.

1 We'd have to actually go back in and completely
2 place copper from the central office main frame.

3 MR. SRINIVASA: Well, if HDT is
4 not located -- if you have an existing HDT,
5 apparently on the upstream side you do have
6 fiber --

7 MR. KUBES: Yes, sir.

8 MR. SRINIVASA: -- going back to
9 the central office.

10 MR. KUBES: Correct, sir.

11 MR. SRINIVASA: There are spare
12 fibers also in that bundle. Is that fair to
13 say, that --

14 MR. KUBES: I would say that's
15 correct. Yes, sir.

16 MR. SRINIVASA: So there are fiber
17 optic cables available, then.

18 MR. KUBES: Generally, yes.

19 MR. SRINIVASA: Now, if an HDT is
20 located out in the field, if that HDT, a new
21 subdivision, is less than 18K, for example, say,
22 where the current fiber terminates onto an HDT,
23 can you locate a Pronto device adjacent to that
24 HDT and install copper?

25 MR. KUBES: No, sir. At this

1 time --

2 MR. SRINIVASA: Can you use the
3 other fiber, the spare fiber, back to the
4 central office?

5 MR. KUBES: That's one of the
6 potential considerations that we could use to
7 solve the whole issue on a long-term basis.

8 Bob mentioned earlier that we have a
9 team in place that is evaluating long-term
10 alternatives and solutions to this problem. I
11 don't know which particular solution they are
12 looking at at this time, but that could be one
13 of the solutions.

14 MR. SRINIVASA: Well, for the new
15 ones -- this is what I was trying to find out if
16 you would consider that, and for the existing
17 ones where Lucent is coming up with the solution
18 to modify that to accommodate DSL, how quickly
19 can you make a decision to go back and retrofit?

20 MR. KUBES: I don't know at this
21 time, sir. We can research that.

22 MS. GENTRY: Jo Gentry, IP. I'd
23 like to go back to something you just said a few
24 moments ago. You referenced a time frame and
25 you said something about six months.

1 Will anything be available to the end
2 users from what you understand right now between
3 now and approximately six months from now? Will
4 DSL be available to the end users that we're
5 referencing right here? Will DSL be available
6 to those customers in this six-month period from
7 what you believe right now is the infrastructure
8 that is in place or that you are proposing?

9 MR. SANDS: Bob Sands,
10 Southwestern Bell. Very likely, Jo. We just
11 gave the six months, because at that point we
12 weren't sure what our solution might be.

13 We thought that the OCD, the Pronto
14 OCD, which is in place in the Richardson
15 central office, would provide us with our
16 interim solution, and we are proceeding with
17 that.

18 One of the big questions was, you know,
19 is it installed. We verified that, and it's
20 there. And the only thing we need are to add
21 some plugs to that, and then we need to test
22 with Lucent and be sure this will work. In
23 answer to your question, we're very confident
24 that in less than six months, that DSL service
25 will be available to all the CLECs.

1 We just don't know how quickly.

2 MS. GENTRY: Okay. So what you're
3 saying is, you believe your interim solution is
4 this Pronto hybrid?

5 MR. SANDS: Correct.

6 MS. GENTRY: You also kind of had
7 a small comment a moment ago that the Richardson
8 area -- and I'm paraphrasing, because you said
9 something about pricing -- that it would be
10 priced differently.

11 Are you anticipating right now that
12 whatever you are going to do with these
13 customers in Richardson will have a different
14 pricing structure than what you are proposing
15 for Pronto throughout the rest of Texas?

16 MR. SANDS: That is correct.
17 That's possible. It may be the same. We don't
18 know at this point in time, because we haven't
19 gotten it physically installed to see if it will
20 work. We just don't know what the costs are
21 involved.

22 MR. CURRY: I had a couple of
23 clarification questions. And I apologize. I
24 may not have been in here at the last meeting
25 when you may have discussed this. I'm not sure.

1 When you said -- and this is either to
2 Southwestern Bell or ASI. Which equipment
3 belongs to ASI? You said that equipment was
4 transferred -- some plant was transferred.
5 Which plant was, in fact, transferred?

6 MR. BROWN: What's the
7 nomenclature on the central office units?

8 MR. KUBES: The central office
9 unit -- this is George Kubes -- is a new bridge
10 ATM switch that was physically transferred to
11 ASI. And the modems that are in place and the
12 spare modems that were in our possession have
13 been physically transferred to ASI per the
14 merger agreement.

15 MR. CURRY: These would be the
16 modems at the customer location?

17 MR. KUBES: Correct, those modems
18 physically installed and physically within our
19 possession at time of the transfer.

20 MR. CURRY: And my understanding
21 is, you have roughly -- somebody said -- 900 or
22 so working DSL customers.

23 MR. BROWN: That's correct.

24 MR. CURRY: Is that right? So
25 that equipment was transferred to ASI. Right?

1 MR. BROWN: That's correct. And
2 the embedded base of customers was transferred
3 to ASI.

4 MR. CURRY: But then I thought you
5 said you weren't able to get it to work. Is
6 that what you weren't able to get to work or
7 not?

8 MR. BROWN: No. The embedded base
9 of customers were working. So they were
10 transferred to ASI. Billing records were
11 established, and we purchased -- essentially
12 purchased special access to be able to provide
13 the transport piece out to the customer.

14 But because there is not an unbundled
15 network element or a broadband service available
16 yet, we're not able to provision new customers
17 going forward.

18 MR. SRINIVASA: Well --

19 MR. CURRY: Earlier there was a
20 discussion of a team that was looking into the
21 problem. Is ASI working as part of that team?

22 MR. BROWN: I'm sorry. Repeat the
23 question.

24 MR. CURRY: Earlier there was a
25 discussion about a team looking at this

1 problem -- I mean, outside of this room. There
2 was some other team looking at how to resolve
3 this problem. Is ASI a part of that?

4 MR. BROWN: I believe the team you
5 were referencing was the team that's trying to
6 make a determination about the solution for
7 CLECs. ASI is not part of that team.

8 MR. SANDS: This is Bob Sands,
9 Southwestern Bell. Those are strategic planners
10 that are involved in the planning with
11 Southwestern Bell, and ASI is not involved in
12 that.

13 MR. CURRY: All right. And I
14 guess the last -- okay. Well, I had another
15 question, but I think it was answered; and that
16 is that SWBT is not currently providing the DSL
17 to the customers.

18 So there is no need for a waiver. It
19 sounds to me like by the transfer of equipment
20 and purchasing through special access and
21 whatnot that there is a work-around there so
22 that ASI is in fact providing the service. So
23 there is no need for a waiver. Right?

24 MR. BROWN: You are correct. We
25 had to transfer the service because it met the

1 definition of an advanced service in the merger
2 conditions, but we had to find kind of a unique
3 way to do that, and that was to use special
4 access.

5 But that's obviously not a solution
6 going forward, and so we're unable to provision
7 going forward.

8 MR. CURRY: So if a customer in
9 this area asked for -- a new customer asked for
10 service, they just can't get it right now.

11 MR. BROWN: That's correct.

12 MR. SRINIVASA: See, the 900
13 subscribers, are they in the Richardson area
14 that they are getting --

15 MR. BROWN: I don't know exactly
16 where they are at. I assume they are in the
17 fiber to the curb area of Richardson.

18 MR. SANDS: Correct. They are in
19 the city limits of Richardson, all fed by this
20 technology.

21 MR. SRINIVASA: So they are able
22 to get DSL service through this ONU. Are you
23 using the Lucent boxes to serve them, or what is
24 it -- what is being used to serve them?

25 MR. BROWN: The advanced services

1 equipment that was transferred to ASI, we're
2 using that as our own facilities. And then for
3 purposes of conversion, the transport piece to
4 get it out to the customer, we're paying for
5 special access in each case.

6 Now, that's not a viable solution going
7 forward, but I had to make some decisions about
8 how am I going to convert the embedded base and
9 satisfy the merger conditions. We didn't have
10 enough time to seek a waiver for this from the
11 FCC. So that's the decision I made.

12 MR. SRINIVASA: Well, again, the
13 technology that you're using, is that the same
14 Lucent technology, or is it something different?

15 MR. BROWN: Apparently it's the
16 same technology.

17 MR. SRINIVASA: Okay. If it's
18 working, why are you saying it's still under
19 trial?

20 MR. KUBES: George Kubes. I think
21 the confusion is that what we have to trial is
22 the ability to transfer these working customers
23 off of the OC3C feeds coming upstream from the
24 HDT.

25 We have to insert the OCD device. We

1 have to reprogram all of those customers then to
2 an OC3C that would then feed ASI or the collo of
3 anyone who chose to locate in that central
4 office for services.

5 What we have to test and trial is
6 slipping the OCD in the middle of the existing
7 circuitry. And our initial plan on that is to
8 leave the multiple feeds -- right now we have
9 approximately four or six. I'm not sure of the
10 exact number of feeds -- coming in to the
11 existing ADM switch that is owned by ASI.

12 It is our plan to go in, insert the OCD
13 between these operating OC3's, get it up and
14 running, make sure it works. Of course, we have
15 to test rolling these, first off, to make
16 sure that we can actually physically do it.

17 Then we will do a consolidation effort
18 similar to Pronto where we'll take these
19 multiple OC3's and the subscribers, reroute them
20 through the function and feature of the OCD to
21 the OC3C feeding the particular CLEC or DS3 when
22 those tariffs are approved.

23 The problem we have is not only
24 technical in nature, but we have to prove that
25 we can do this and, of course, we have to move

1 each of these subscribers and reroute them,
2 reassign them through the switches, the routing
3 indicator and their ATM switch, because it will
4 impact ASI or any other CLEC who would be on the
5 upstream side; is we still don't have our
6 determination from the FCC. You know, the
7 aspect of SBC being allowed to provide the
8 transport and the ownership issues of the OCD,
9 the ABCU cards and the ADLU cards has not been
10 ruled on.

11 So while we are doing this, we are
12 doing it in good faith in anticipation of a
13 favorable ruling.

14 MS. CARTER: Melia Carter, Covad
15 Communications. I just have a clarifying
16 question for SBC. Bob, I believe you mentioned
17 that the solution you were looking into for
18 CLECs is providing them with a service. Is that
19 correct?

20 MR. SANDS: Bob Sands,
21 Southwestern Bell. Yes, that's correct.

22 MS. CARTER: And my understanding
23 of SBC's definition of a service is that you
24 cannot purchase that on an unbundled basis;
25 that, in fact, the components are all together