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1 put that aside for a second. This is obviously
2 advanced service. So they must have gotten some
3 kind of waiver or some kind of grandfathering.
4 But the point is that there's the
5 serving technology from a technical standpoint
6 is ATM, meaning -- and the way -- you can take
7 handoffs of that kind of technology, and it's
8 done every day of the week, you get what's known
9 as a port on a routing or switching device. In
10 this case, I'm not quite sure what kind of
11 switch they have. They're deploying Lucent CBX
12 500s under Project Pronto.
13 It probably isn't that. That's a
14 pretty current switching -- or ATM technology,
15 but there's some kind of ATM router or switch
16 out there, and the way you can take a handoff is
17 either at a copper DS3 level or a fiber OC3C
18 level. Both those handoffs are possible
19 technically. We would be happy to take an
20 unbundled loop product that, in effect, is not
21 a -- because it can't be, a physical cooper
22 pair. It's basically a virtual circuit.
23 MR. SRINIVASA: It's a bit stream
24 unbundling essentially?
25 MR. BOWEN: Yes. And, you know,

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1 ATM cell technology basically does -- the cells
2 come and get reassembled and routed at each
3 switching device. And when you're out in the
4 cloud, it's like the Internet. You know, the
5 cells go every which way, and then they get
6 reassembled at the far end in the right order
7 because --
8 MR. SRINIVASA: But the add/drop
9 multiplexers off of the ATM optical network
10 which takes up different speeds, multiplexes
11 it --
12 MR. BOWEN: This is actually more
13 like -- and they do get mucked up onto -- and
14 they do ride on sonnet every day of the week,
15 but this is much more like -- the monologue I
16 guess would be Internet where you would have
17 packets zipping around the world and getting
18 reassembled at the far end through any number of
19 routes for individual packets.
20 MR. SRINIVASA: Is there a white
21 paper or written proposal for this? Can one of
22 you provide that?
23 MR. BOWEN: Well, I mean, ATM
24 technology is -- has been around for years, and
25 we can probably find something that sketches the

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1 basics of the technology out.
2 MR. SRINIVASA: Specifically, you
3 know, these 30,000 -- oh, I don't know if 30,000
4 is -- for these zip codes where they have this
5 technology deploying, those subscribers were
6 connected to that network. You know, if the
7 Commission says it needs to be unbundled,
8 competitors should also get access to those
9 customers. How can that -- is there a white
10 paper or can you --
11 MR. BOWEN: Let me back up and
12 talk for a second about the different layers.
13 The serving physical layer is fiber.
14 MR. SRINIVASA: Right.
15 MR. BOWEN: I'm assuming that they
16 are running, you know, sonnet-based signals from
17 these ONUs back to the RTs back to the central
18 office. I don't know that, but that's probably
19 what they're doing. But the ATM layer that
20 they're using to actually serve the data signals
21 really sits on top of both of those. That is
22 it's -- you know, there's this big fat pipe out
23 there, this fiber that you can do whatever you
24 want to with it.
25 And what they're doing with it is

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1 running ADSL, which is ATM encapsulated across
2 that serving technology. Given that, what you
3 do with that technology is you create what's
4 known as permanent virtual circuits, different
5 quality of service levels. And, you know,
6 you've got an unspecified bit rate, which is
7 good for Internet access. You have other bit
8 rates that are good for voice and video over
9 that technology.
10 But the point is that you create
11 these PVCs, permanent virtual circuits, within
12 this big fat pipe that is the fiber, and the ATM
13 switch at the central office end and your
14 equipment at your end, you know, which are your
15 packets or your cells actually.
16 MR. SRINIVASA: Does it mean -- in
17 order to get to that, you know, to change the
18 network configuration like you were saying, that
19 permanent virtual circuit, can they retrofit the
20 existing piece of equipment, add on, or does it
21 mean that they need to remove what is connected
22 and --
23 MR. BOWEN: They don't have to do
24 anything. You leave it in place. The way you
25 define PVCs is what's called an element manager.

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1 Okay. Every ATM network out there, every ATM
2 device is driven by an element manager. You
3 create PVCs and permanent virtual paths, PVPs,
4 across ATM networks all the time, and they tend
5 to be -- these are big networks most of the time
6 and, you know, national networks or regional
7 networks.
8 You use the element manager to
9 define -- let's take a location. On Richardson
10 where you have a house that's being served by
11 this technology, you always need to be able to
12 have -- to create that PVC from that premises
13 back to whatever the handoff point is. I mean,
14 it could be an ISP, it could be a voice switch,
15 it could be a number of things. But the element
16 manager says, "Okay. As this -- as these cells
17 move from the house back to the network, I will
18 assign a permanent virtual circuit, basically
19 almost like a wire, if you will, to that path of
20 cells."
21 And you always need to have an
22 element manager to define the PVCs, and you need
23 a device to take the handoff. That's always a
24 switch for a router, something that takes the
25 cells and says, "Okay. Who's cells are these?

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1 Oh, this is Jo Gentry's cells coming from her
2 house. They go over to here." And it routes
3 those cells, you know, to and from Jo Gentry's
4 house. That's what it does. That's what the
5 switch is for. It --
6 MR. SRINIVASA: It's configured?
7 MR. BOWEN: Yeah. It's not a --
8 like a -- it's not like a hard-wired circuit.
9 It's -- it routes cells.
10 MR. SRINIVASA: So the customer
11 premise is there like a packet disassembler?
12 Then even at the central office, there's a
13 packet assembler and disassembler that routes
14 it?
15 MR. BOWEN: Again, technically, I
16 am told that it's -- they are called cells, not
17 packets, but it's the same idea.
18 MR. SRINIVASA: Same idea, like an
19 X.25 network used to do?
20 MR. BOWEN: Right. I mean,
21 basically you're sending packets from your house
22 back to your ISP, and the ATM switches, the
23 point at which those packets can be shunted away
24 from the other packets to the right destination,
25 which happens to be me, you know, Rhythms wants

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1 to get its packets that it can do that with
2 current technology.
3 With current technology, we can
4 get, again, what's called a port on this ATM
5 switch and hook up either at a DS3 level or OC3C
6 which is a really big fat pipe. DS3 is
7 obviously a pretty fat pipe by itself, but that
8 is how -- even though it's integrated into --
9 there's no physical ability to say, "Okay. I'm
10 going to come in here and collocate something
11 over here at the RT or the ONU." You can take a
12 port off this ATM switch, and that becomes your
13 UNE basically. You know, from there, from the
14 port on the OCD -- I'm sorry -- from the port on
15 the ATM switch to the premises. That's your
16 UNE.
17 MR. SRINIVASA: Well, essentially,
18 you are physically collocated, but you are by
19 the ATM port. You take it from there to your --
20 MR. BOWEN: Then you go from there
21 to your collo and you're fine.
22 MR. BORDERS: Well, if the ATM was
23 given to ASI, we do not own it. Oh, I'm sorry.
24 I'm Dave Borders. So if we -- if it is not
25 grandfathered, and believe me, I don't know, but

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1 if ASI is now the owner of that ATM --
2 MR. SRINIVASA: Well, if those
3 30,000 subscribers are served only by this
4 topology, and -- does it mean that they don't
5 have a choice?
6 MR. BORDERS: Absolutely.
7 MR. SRINIVASA: How -- is it only
8 made -- you mean it is that they don't have a
9 choice? They have to go with the ASI?
10 MR. BORDERS: Well, as far as the
11 configuration is today. Now, when the
12 configuration changes because of the lack of
13 support for the equipment, you know, who knows.
14 It certainly would be a consideration to have to
15 take into place for competition.
16 MR. BOWEN: Well, there's another
17 merger condition that says if this has been
18 transferred to ASI and you have no alternative,
19 we have to get --
20 MR. SRINIVASA: Unbundled.
21 MR. BOWEN: -- that unbundled from
22 ASI.
23 MR. BORDERS: Now, the other issue
24 is the FCC stated that -- you know, that
25 integrated switches do not have to -- integrated

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1 systems do not have to be disintegrated.
2 MR. BOWEN: We don't want to
3 disintegrate the system. We want to take a port
4 on the ATM switch, just like you have to for
5 your DSLAM -- I mean, for your handoff. That
6 switch is basically there to route cells.
7 MR. SRINIVASA: You still have
8 to -- for ASIs providing the digital services,
9 but you still have to route part of the voice
10 traffic onto your circuit switch network?
11 MR. BORDERS: No.
12 MR. SRINIVASA: Oh, so it's
13 packet?
14 MR. BORDERS: It's separate. It
15 comes in on a separate fiber. The fiber goes
16 straight to the ATM. The fiber goes straight to
17 the switch. You don't have -- they're not
18 combined. At the remote they're split between
19 the data and the voice.
20 MR. SRINIVASA: Well, it's -- so
21 the remote location is where you have the ATM?
22 MR. BORDERS: No. The ATM is in
23 the CO.
24 MR. SRINIVASA: So the remote
25 cells to ATM to cells. Right?

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1 MR. BORDERS: It's on the same
2 fiber. It's got both spectrums, okay? It's got
3 high band/low band. It comes in, and at the RT
4 it splits it, sends the data to the ATM, sends
5 the voice to the switch.
6 MR. SRINIVASA: They operate at
7 the same wave length? These two fibers are
8 different?
9 MR. BORDERS: I do not know the
10 wave length. It's different technology, and I
11 can't --
12 MR. BOWEN: There's no high band/
13 low band on fiber, though. I mean, it's --
14 MR. SRINIVASA: When you say --
15 MR. BORDERS: Well, it's --
16 believe me, the technology is -- it splits the
17 voice and the data.
18 MR. SRINIVASA: So it's still at
19 1300 nanometer or 815 -- you don't know?
20 MR. BORDERS: I don't know for
21 certain, no, sir. But it's split at the RT and
22 goes back to the office on fiber.
23 MR. DRAKE: If it's derived voice,
24 then it can all be in the cells. We're field
25 trialing stuff today with voice over -- IP voice

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1 over ATM, and your voice is in those cells, too.
2 So it isn't really split. It's over the C
3 fiber, and then it's addressed at one end. And
4 it's broken down, and the voice goes to your
5 voice phone through a splitter device. And your
6 data goes --
7 MR. BORDERS: It is split at the
8 RT.
9 MR. DRAKE: So it's probably done
10 that way.
11 MR. SIEGEL: Just a couple of
12 things. I just want to relay back to you -- for
13 the record, Howard Siegel, IP Communications. I
14 want to relay back a couple of things that we
15 discussed last meeting.
16 First Nara -- Judge Srinivasa --
17 sorry -- you asked about, you know, white papers
18 and on this -- you know, this configuration, how
19 do you unbundle it and whatnot. And I think
20 Mr. Bowen did a tremendous job, but I think that
21 we also need to understand that IP's been trying
22 to figure out, what exactly has been going on
23 for months.
24 NorthPoint testified that they
25 encountered this last fall, I believe, and

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1 couldn't get an answer. And so we're really
2 just learning about the architecture today, and
3 so as tremendous a job as Mr. Bowen did, we need
4 to also understand that it's hard for the
5 (inaudible) to be on us to explain how to
6 unbundle it when we've been trying as hard as we
7 can to figure out what's going on.
8 MR. SRINIVASA: It's technical
9 feasibility issue is what we're trying to get
10 into?
11 MR. SIEGEL: Right. But, I mean,
12 it's -- but understand that we were at a
13 disadvantage of trying to demonstrate that
14 because we did not -- were never given a
15 revision as to the network architecture. Also,
16 in lending to availability of the sources I
17 think what the Southwestern Bell witness stated
18 about there being no other way to get advanced
19 service to these customers is correct, because
20 just to remind what we were told last time was
21 when this was put in, all the copper was ripped
22 out. And so that means there are no
23 alternatives.
24 MR. SRINIVASA: Was the --
25 MR. LEAHY: Tim Leahy for the

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1 record. I think it's fair to say what
2 Mr. Borders stated was that it was taken out in
3 aerial media and pedestals were removed, and
4 that was part of the arrangement with the City
5 of Richardson, Texas. So there's an aesthetic
6 aspect to Richardson's interests, and it's
7 important to acknowledge that so as we don't
8 draw an inference that the removal of some of
9 the older plant was done for a reason other than
10 as a condition -- as a condition required by the
11 City of Richardson.
12 MR. SRINIVASA: Did the PUC grant
13 you the authority to run this trial, the PUC of
14 Texas?
15 MR. LEAHY: Yeah, I understand the
16 question. I don't know exactly. I'd be glad to
17 get back to you on that. My understanding was
18 that it was addressed in some way, but I don't
19 know that.
20 MR. SRINIVASA: Okay. I would
21 like to know if it was a request made through
22 the PUC and if the PUC granted you to remove all
23 of the copper plant. Of course, I understand
24 what the City of Richardson did, but was that
25 authority to remove all of them granted by the

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1 PUC? And, again, the issue of lifeline type --
2 you know, if there's a power failure, or how
3 would they do the 911? That issue also is --
4 MR. BORDERS: Well, I can address
5 that for you. One of the things that I would
6 like to bring up is that this issue was brought
7 out in the Covad arbitration last year.
8 MR. LEAHY: Okay. Well, to
9 clarify the record, there were some depositions
10 taken of Betty Schlackman, I recall, and it may
11 have been --
12 MR. SRINIVASA: This was not a
13 disputed issue that --
14 MR. LEAHY: I'm willing to have
15 Mr. Bowen and Ms. Majcher weigh in, but I don't
16 recall there being any particular DPL issues.
17 MR. BOWEN: I think that's my
18 recollection, too, Your Honor. I do -- I mean,
19 we did have a chat with Ms. Schlackman and one
20 more -- I can't think of her name. It was late
21 at night. I do recall that because Tim and I
22 were there together, and we talked about this
23 VDSL Richardson application. But it was
24 never -- we did not seek in that arbitration
25 explicit solutions for that particular serving

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1 technology. I guess I will say it that way.
2 That as we knew it was out there,
3 we knew it would apply to Richardson and I think
4 one more suburb of Dallas. I don't recall what
5 that was at this point, but we did not seek a
6 special solution for that serving technology at
7 that time.
8 MR. SRINIVASA: So --
9 MR. LEAHY: And -- Tim Leahy for
10 the record -- that's my recollection as well.
11 MR. SIEGEL: Just two last --
12 well, two things. One, just to make clear, I
13 wasn't trying to make any kind of inference as
14 to why the copper was removed. It was just a
15 fact of the copper not being there any longer.
16 And the last thing I want to say
17 is just that it's unfortunate that it's taken
18 this long to get the information considering
19 that SBC experts on DSL actually have this
20 technology to their homes should not have been
21 this difficult.
22 MR. SRINIVASA: Was there an
23 exemption granted from unbundling these loops by
24 the PUC of Texas?
25 MR. BORDERS: I don't know, sir.

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1 MR. SRINIVASA: Okay.
2 MR. LEAHY: Your Honor, I will
3 check as to history of the Richardson -- the
4 commencement of the Richardson trial, and we
5 will provide that record.
6 MS. GENTRY: Jo Gentry, IP. I'd
7 also like to ask at the same time he's doing his
8 verification, let's confirm perhaps how many
9 customers are involved, and then how are they
10 adding new customers and then the reference to
11 the 10,000 so we can really have a magnitude of
12 what this is affecting.
13 MR. SRINIVASA: Can you read off
14 the zip codes? Can you verify and tell us --
15 MR. LEAHY: Actually, if we could
16 get a copy of the report she read, I'd like
17 that.
18 MS. GENTRY: I'll be happy to --
19 yeah. We can have that copied for you and given
20 to whomever.
21 MR. SRINIVASA: Can you put
22 that --
23 MS. GENTRY: Yes, certainly.
24 MR. SRINIVASA: We would like to
25 have that 20400 as part of the record.

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1 MS. GENTRY: Gladly.
2 MR. BOWEN: It also occurs to me
3 that the Commission probably would not have been
4 presented with the question because this
5 happened in '94, and we didn't even get the
6 unbundling obligations until the act was passed
7 in '96. So I -- you know, I think probably that
8 that, you know, deployment of Richardson
9 predated any of the unbundling obligations and
10 so forth. So they probably wouldn't need to ask
11 for any special dispensation on that front.
12 MR. SRINIVASA: Well, in '96 did
13 they specifically seek that they should be
14 exempt from unbundling these loops?
15 MR. BOWEN: No.
16 MR. SRINIVASA: Okay. That's what
17 I was trying to find out.
18 MR. SIEGEL: Even if the assets
19 are currently in ASI's hands, IP and, I believe,
20 NorthPoint have had orders rejected before that
21 transfer ever took place. And so it's not clear
22 how we were -- not able to do that while SWBT
23 retail was able to provide services under these
24 loops and how we were getting loops that --
25 MR. SRINIVASA: So the unbundling

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1 criteria are -- is it technically feasible? Is
2 it necessary? Will it impair? You know, under
3 that I don't think there was any exemption on
4 it, but if you think that you were, please let
5 us know. If not, you need to figure out a way
6 to unbundle it.
7 MR. LEAHY: And, for the record,
8 we do have this technical feasibility issue that
9 needs to be addressed. All we've heard is
10 Mr. Bowen expound how he believes that it's not
11 technical issues, or if there is no technical
12 feasibility issue. And my suggestion is that
13 that hasn't been completely teed up at this
14 time.
15 MS. CHAPMAN: And that wouldn't
16 be -- even if that were a way to do that, which
17 I don't know. I'm not the network (inaudible).
18 That wouldn't be an unbundled loop. That would
19 have to be some sort of new UNE that we would
20 have to develop for this virtual
21 (inaudible-cough) or whatever.
22 But you can't unbundle a loop
23 that's fully integrated, and that's what was
24 ordered and that we could not unbundle. So --
25 MR. SRINIVASA: That's what we

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1 would -- there is physical access unbundling to
2 the entire loop. There is frequency unbundling
3 that's going to be addressed under the line
4 share. There's bit stream unbundling --
5 MS. CHAPMAN: Which should be
6 something different, but what we ordered was a
7 UNE loop which we could not have provided
8 because that is technically not feasible to do.
9 MR. SIEGEL: Am I understanding
10 that if I'm a CLEC providing voice to the
11 customer in Richardson, I can provide ADSL to
12 them as well through this architecture because
13 the integrated nature of your technology is no
14 longer a factor?
15 MS. CHAPMAN: If you are a
16 reseller, you can do that. That's correct.
17 MR. SIEGEL: What if I'm a UNE-P
18 provider?
19 MS. CHAPMAN: You cannot unbundle
20 a loop period whether it's for DSL or for
21 anything else, because it's fully integrated
22 with both the switch and then the ATM. And
23 since it's fully integrated, it can't be
24 unbundled as a loop.
25 MR. SIEGEL: So UNE-P orders at

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1 Richardson get rejected, also, so voice
2 providers can't provide UNE-P voice services
3 either?
4 MR. BORDERS: They can't access
5 the -- you know, it's fully integrated into the
6 switch. There's no --
7 MR. SIEGEL: And if they're
8 using -- if they want to purchase the switch and
9 the loop as unbundled elements, those orders are
10 rejected?
11 MR. BORDERS: The only -- my
12 understanding is that we have resell in
13 Richardson.
14 MS. CHAPMAN: That is correct.
15 Because of the integrated nature, it cannot be
16 unbundled. So it can only -- it's only
17 available as a resell product in Richardson
18 because of the fact that we cannot reunbundle
19 those elements. They are fully integrated.
20 They can't be broken up.
21 MR. BOWEN: Well, but the strange
22 thing is that this looks and feels and sounds to
23 me just like what SBC is offering up, their new
24 broadband UNE, which is basically a permanent
25 virtual circuit. That's what we're talking

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1 about -- that's what they're talking about on
2 their new platform which we'll get to later --
3 MR. SRINIVASA: We'll get to that,
4 yeah.
5 MR. BOWEN: But even now, this is
6 the same thing. This is a PVC which goes from
7 the premises to a handoff point. It happens to
8 be an ATM switch at the central office. That to
9 me -- that's a UNE loop.
10 It doesn't go beyond -- it doesn't
11 go into the switch. It doesn't go into the
12 transport network. It comes to the office and
13 gets handed off. If it happens to be handed off
14 at an ATM switch, so what. I mean, that's how
15 that technology works.
16 MR. SRINIVASA: But I believe that
17 your position is that ATM is going to be owned
18 by the ASI (inaudible). They don't have an
19 obligation to unbundle it.
20 MR. BORDERS: That's my
21 understanding.
22 MR. SRINIVASA: That's your
23 position.
24 MR. BORDERS: That's our position,
25 and also in -- that this -- that the

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1 configuration is fully integrated into the
2 switch. I don't think there's a breaking point
3 where that to -- you would have to -- you know,
4 if virtually, you could break it up.
5 MR. SRINIVASA: Again, it's soft
6 configured which means --
7 MR. BORDERS: Absolutely, but
8 there's no hard --
9 MR. MASON: We're giving the court
10 reporter a heart attack.
11 MR. BORDERS: Oh, okay.
12 MR. MASON: Let's just remember
13 that we're on the record.
14 MR. SRINIVASA: Yes, please go
15 ahead.
16 MR. BORDERS: Well, anyway,
17 there's just not a break point where you could
18 take and make a -- any kind of physical
19 disconnect. It would have to be into the ATM
20 itself.
21 MR. SRINIVASA: Right. It's soft
22 configured. You route those bit streams or
23 those cells to another provider. It's -- you
24 can define it?
25 MR. BOWEN: And I think the --

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1 under this serving topology, which is not going
2 to be unique to this VDSL application of
3 Richardson, this is going to be, as we'll get to
4 in Project Pronto, this will be the technology
5 they're going to use to serve a whole bunch of
6 people.
7 The handoff point is a port at the
8 ATM switch device. That's -- you know, the
9 notion that you can't find the horizontal side
10 of the MDF so you can't do it is anachronistic,
11 shall we say.
12 This serving topology says, "Okay.
13 You put something out there in the field. You
14 have an ATM switch at the central office. You
15 hand off to your data sub. You hand off to us.
16 You hand off to the world. You ride onto the
17 rest of the world perhaps."
18 That's how you do it, and that's
19 where we take our hand off. And so I think the
20 UNE really is, like I said, a PVC that goes from
21 the customer premises to the port on this ATM
22 switch. It's not part of the voice switch at
23 all. It never hits the Class 5.
24 MR. SRINIVASA: Well, this is in
25 the technical feasibility issues. But if the

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1 Commission decides that it is technically
2 feasible and it is necessary and it would impair
3 if it's not provided, then certain rates -- you
4 think it's going to be complicated for these --
5 no, you do not think so?
6 MR. BOWEN: We already have a cost
7 study in the can as it were.
8 MR. SRINIVASA: Is this only --
9 you're encountering that only in Texas, or is
10 it -- have you come across this in some of the
11 other states?
12 MR. BOWEN: We're not aware of any
13 other SBC state that has -- this really was a
14 hybrid fiber coax trial when it started.
15 MR. SRINIVASA: I believe numerous
16 RBOCs tried that.
17 MR. BOWEN: Right. But in the SBC
18 13 state region, we're not aware of any similar
19 HFC trials that are still live.
20 MR. SRINIVASA: How about Bell
21 Atlantic or --
22 MS. GENTRY: I know that US West
23 had one in Omaha. I don't remember the explicit
24 portions of the technology for the unbundling.
25 I know that they are selling unbundled loops out

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1 of that general area.
2 So I'm not sure if they like left
3 their plant in place in contrast to stripping it
4 out like SBC did. Every ILEC in that same time
5 period did some kind of a video operational
6 function and to my knowledge, they'll abandon
7 what they were doing.
8 MR. BOWEN: And much of what you
9 heard, Pacific Bell, for example, announced a
10 $16 billion California only deployment of HFC
11 topology in 1994, or '95. They never actually
12 did it because they couldn't prove it
13 economically.
14 So there were lots of
15 announcements and lots of -- not lots. They
16 were some of these kind of field trials. You
17 know, you take a town or you take a suburb or
18 whatever, you try it out, and I think people
19 decided that it was just too expensive to roll
20 that way, at that time at least.
21 MR. SRINIVASA: Wasn't it US West
22 did something -- Phoenix?
23 MS. GENTRY: Their primary one was
24 in Omaha.
25 MR. SRINIVASA: Omaha?

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1 MS. GENTRY: Uh-huh. And they
2 could not prove it in. That was exactly why
3 they abandoned it. The technology was not there
4 yet for the -- I guess bottom line is I, as a
5 CLEC, need to figure out where this is going.
6 It needs to have quick resolution because we are
7 placing orders -- I mean, we're doing the loop
8 call.
9 We get back something that says
10 it's red and it's pair gained, and then we try
11 the IDSL route and whatever and eventually find
12 out that it's because it's fiber to the curb.
13 There are hundreds of hundreds of customers out
14 there coming to our ISPs to us every day trying
15 to get a competitive alternative to SBC.
16 I want to be able to serve those
17 customers, and we've got to figure out a way --
18 if it means create some kind of a port
19 opportunity or something like that. I can't
20 just stop here saying, "It's hard; it's
21 difficult, so I can't do it." That is not the
22 answer. So we've got to progress this.
23 Either it's something that we do
24 on a prompt basis with SBC cooperating with us,
25 or we do it in the awkward manner of having to

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1 go through some kind of a complaint process to
2 push them to working with us. This has gone on
3 way too long.
4 MR. SRINIVASA: IP's complaint
5 against Southwestern Bell for unbundling -- or
6 for line sharing, do you have this one as an
7 item of dispute, also?
8 MS. GENTRY: No. We focused on
9 our -- on line sharing exclusive issues at the
10 time.
11 MR. SIEGEL: But it should be
12 understood that the petition was open-ended
13 because we were first learning issues, and this
14 is -- this would be a line sharing issue to the
15 extent that SBC, for example, or SWBT would
16 remain a voice provider. So we're -- that
17 petition encompasses line sharing, and what we
18 requested was Commission involvement because in
19 the development of issues process --
20 MR. SRINIVASA: No, that's a
21 generic proceeding, too. So other CLECs are
22 also participating in that?
23 MR. BOWEN: Well, there was a
24 generic filing made, and then Rhythms and Covad
25 jointly filed. A petition was both -- an

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1 arbitration of the act and a dispute resolution
2 post-agreement dispute resolution petition. I
3 believe the status is that the generic petition
4 has been consolidated into a Rhythms/Covad
5 docket.
6 MR. LEAHY: And this is Tim Leahy
7 with Southwestern Bell. It is Southwestern
8 Bell's understanding that what we are engaged in
9 is a generic proceeding, not some sort of
10 merged, two separate -- two separate petitions
11 because other ILECs -- I'm sorry, other CLECs
12 have been given the opportunity, given notice
13 and some have intervened for purposes of
14 participation in that generic docket.
15 MS. MAJCHER: Dineen Majcher. So
16 the record is clear, it is my understanding that
17 we do this both, that the -- and we discussed
18 the issue of jurisdiction at the prehearing
19 conference. It is both a generic proceeding,
20 and it is also pursuit of Rhythm's and Covad's
21 request under both FTA and post-hearing
22 connection dispute resolutions. Just so the
23 record is clear on that.
24 UNIDENTIFIED SPEAKER: We're not
25 going to go there, are we?

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1 MR. MASON: We can talk about that
2 in that docket. I'm not sure we need to address
3 that here.
4 MS. GENTRY: My concern with --
5 and I certainly understand the line sharing
6 applications. I'll be the first one to say that
7 that is what's imminent for all of us right now.
8 My concern would be is it gets lost and the
9 other issues which go on with line sharing
10 because this is just -- you know, it happens to
11 be a large quantity of customers, but it's not
12 all over the state of Texas. And we're trying
13 to solve deployment plans and technology and all
14 that kind of thing called of line sharing.
15 It could easily get taken aside
16 and not really be addressed in the manner. So,
17 again, it's your discretion where it's
18 appropriate to resolve it. I ask for your help
19 in finding the right vehicle to do that and
20 doing it very expeditiously.
21 Everyone's being denied unbundled
22 loops today. Line sharing is a couple of weeks
23 away. We will be denied line sharing. We know
24 that DSL/ADSL is the product of the day, and I
25 certainly want to be competitive with ASI. And

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1 if they're going to be selling hundreds of
2 thousands of these, I want the opportunity to do
3 it, also.
4 MS. LEWANDOWSKI: Jessica
5 Lewandowski from NorthPoint. This may be
6 stating the obvious, but the reason NorthPoint
7 started asking questions about this is that we
8 had angry ISP, wholesale customers who had
9 end-users who didn't understand that when they
10 got rejected by us and then in frustration went
11 back to SBC and they got ADSL, they -- we didn't
12 understand the architecture.
13 So we couldn't even explain why
14 SBC can provide service, and then they think we
15 are denying them the opportunity to get, you
16 know, competitive pricing or just not having to
17 go to SBC and they get angry and we can't
18 explain it, and it's been a bad situation.
19 (Brief pause)
20 MR. MASON: Well, we're going to
21 take a break anyway, but we will come back and
22 talk a little bit more about that. But the --
23 is it a good time for a break? Yeah, we'll take
24 just about 10 minutes.
25 (Recess: 2:30 p.m. to 2:45 p.m.)

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1 MR. MASON: Back on the record.
2 MR. SRINIVASA: The part about the
3 fiber-to-the-curb issue, I believe it is a
4 closely related issue -- another one, the
5 remote, terminal issues and how it is going to
6 be unbundled in the Pronto issue and the more
7 DLCs.
8 Can you give us an outline of how that
9 is going to happen, what's going on there?
10 MR. BORDERS: I have not been
11 involved in Pronto.
12 MS. CHAPMAN: On the Pronto or the
13 RT issue? They really are separate.
14 MR. SRINIVASA: The RT issue.
15 Say, for example, if there is no physical
16 collocation to the RT, how do you -- you know,
17 you're required to unbundle.
18 MS. CHAPMAN: Well, if there is no
19 physical collocation at the RT, then the CLEC
20 does have the option of doing an adjacent
21 collocation to the RT, and then we could still
22 unbundle that subloop. But obviously if there
23 is no way to access the subloop, we can't
24 unbundle it if we can't hand it off.
25 But as long as they can either

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1 physically collocate or do an adjacent
2 collocation, yes, we would unbundle that subloop
3 and then hand it off to them at the RT.
4 MR. SRINIVASA: So if there is no
5 adjacent collocation space and if it is not
6 available, then it means that it cannot be
7 unbundled.
8 MS. CHAPMAN: Well, adjacent
9 collocation space, they would actually be
10 putting up their own. But for a subloop, not --
11 but for a subloop, they have to be able to pick
12 up the subloop. Unless we can give them the
13 subloop, either because they have something
14 collocated at the RT or an adjacent collocation,
15 a physical point for us to give them that
16 subloop, then no. They couldn't have a subloop
17 because we wouldn't have any way of giving them
18 that element.
19 Otherwise it is going to just go back
20 as a full-fledged loop, and we unbundle it at
21 the CO if that's where they were going to access
22 it.
23 MR. LEAHY: Your Honor, Tim Leahy.
24 It is my understanding that SBC has offered sort
25 of what we call a broad-band service in the

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1 scenario where there is no space available in
2 the remote terminal. And this was discussed at
3 the FCC on the 10th of May.
4 MR. SRINIVASA: When you say broad
5 band, the service or is it --
6 MS. CHAPMAN: The Pronto
7 broad-band service.
8 MR. SRINIVASA: What does it
9 entail? Can you tell me? It's the same DSL
10 service that is provided on an unbundled basis?
11 MS. CHAPMAN: I can give you real
12 high level.
13 MR. SIEGEL: Just one
14 clarification on something Mr. Leahy said: If I
15 understand the Pronto offering correctly, it is
16 not limited to just when there is no space in
17 the RT for collocation.
18 MS. CHAPMAN: That is correct. It
19 would be anywhere where we had deployed the
20 Pronto architecture. I guess the point would be
21 that even if there were no collocation space
22 available or even if anybody had adjacent
23 collocation. Where Pronto is, a CLEC would be
24 able to offer advanced service to that customer
25 if that customer was served by Pronto.

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1 And I can give you a real high -- Dave
2 may be able to give a better high-level Pronto
3 description. But basically we are putting fiber
4 out to the RTs, and there will be cards in the
5 RTs that basically perform the DSLAM function.
6 From the RT it would be copper to the end-user.
7 So basically what happens is whereas
8 before the customer may have been 25,000 feet
9 from the central office and we couldn't give
10 them service, now, in effect, since they are
11 being served from that remote terminal, we can
12 greatly expand the customer bases available both
13 to Southwestern Bell and to CLECs alike because
14 the Pronto configuration that we are building
15 out will be available equally to everybody. We
16 will have the same terms and conditions
17 available to ASI or to Covad or NorthPoint or IP
18 or Rhythms or any other CLEC who is interested
19 in it.
20 So basically what it does is it takes
21 the copper to the RT and picks it up, packetizes
22 it and sends back over transport to the central
23 office. So that way, you can extend your reach
24 greatly and reach a much greater number of
25 customers than you can today with the current

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1 network architecture.
2 MR. SRINIVASA: What happens at
3 the central office if a CLEC wants to pick it
4 up, those packets that were delivered to them,
5 hand it off to them?
6 MS. CHAPMAN: That's correct. We
7 will give them the high-band portion -- I'm
8 sorry, high frequency, whatever you want to call
9 it. We will give them the digit signal, the DSL
10 signal. We will hand it off to the CLEC to
11 whoever -- whichever CLEC is providing that.
12 And we have actually developed --
13 developing a system so that they can go in and
14 configure some of those parameters on their own
15 for how that is going to look to them.
16 MR. SRINIVASA: So essentially
17 they can interconnect at the ATM port?
18 MS. CHAPMAN: To tell you the
19 truth, I haven't been involved enough on that
20 side of it to be able to really speak very
21 intelligently about it. I'm going to do some
22 more research on it. I'm not sure how it is
23 going to be picked up.
24 MR. BOWEN: Let me take a crack at
25 this, and if I say something wrong, please

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1 correct me. I was actually on the FCC forum on
2 the 10th, and we have done a lot of looking at
3 Project Pronto. We have looked at everything
4 they have disclosed publicly and so forth.
5 Let me, if I could, just sketch out the
6 network topology and tell you what I understand
7 them to be offering to us and what we need from
8 that architecture.
9 First of all, this is potentially a
10 great loop topology. That is, it pushes all the
11 problems that we have at data CLECs with
12 conditioning and loops that are too long and
13 copper not being available and so forth, this
14 serving topology has the potential to solve most
15 if not all of those problems.
16 I'm using SBC's announced investor
17 briefing and other materials for what I'm saying
18 here. They will reach in 13 states, 80 percent
19 of their customer base with this serving
20 topology, meaning there will be no copper loops
21 there longer than 12,000 feet at the end of the
22 three-year roll-out. This roll-out involves the
23 placement of new or upgraded remote terminals in
24 25,000 locations in 13 states.
25 It involves the placement of what they

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1 call OCDs, optical concentration devices, also
2 known to all the rest of us as ATM switches in
3 1,400 central offices in those 13 states. So
4 this is a very broad and very deep roll-out of
5 next-generation technology.
6 The central office side of things, as I
7 said, is an ATM switch, the functionality of
8 which is probably identical to the ATM switch
9 that is now serving Richardson, only it is a
10 different switch type. It is a Lucent CBX 500.
11 This is a carrier class core network switch.
12 You could take a dozen of these things and run a
13 national network. They are deploying 1,400 of
14 these switches in central offices in 13 states.
15 That is the CO side. And at that side
16 we get our hand off whether it is viewed to be a
17 UNE or as a broad-band product or whatever. We
18 get our handoff at -- and this is their own
19 representation -- at a port on that ATM switch.
20 And they are offering up DS3 cooper handoff for
21 OC3C fiber handoff at that ATM switch.
22 That -- the path back to the office is
23 fiber. They happen to have configured this
24 topology with a separate fiber carrying ATM
25 traffic only. It is an OC3C level service on a

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1 separate fiber. Frankly you don't have to do
2 that. All interoffice fiber right now doesn't
3 differentiate between circuit switch traffic on
4 a time division multiplex basis and some kind of
5 OC3C ATM-only kind of fiber, but they have
6 chosen to dedicate a fiber to the ATM traffic
7 that comes back from the RT.
8 We think that has its own set of
9 problems, but that is a secondary issue right
10 now for this part of my discussion. At the
11 remote terminal, these are -- as I said, they're
12 either new or upgraded. The upgrade basically
13 is to let ADSL signals come across the fabric of
14 the DLC and get carried onto fiber. Up until
15 now you couldn't do that with the DLCs out
16 there.
17 This is next-generation DLC equipment.
18 SBC's vendor of choice is Alcatel. Alcatel, of
19 course, is also the vendor that SBC and four
20 other -- at the time four other RBOCs chose for
21 the home run copper serving technology; that is,
22 the modem at the customer premises and the
23 separate DSLAM and the CO.
24 Alcatel had that part of SBC's
25 high-speed data services business from the

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1 start. About a little over a year, maybe a year
2 and a half ago now, Alcatel bought from DSC --
3 they bought the Litespan equipment basically.
4 That is the next generation digital loop carrier
5 system that has been deployed frankly, I think,
6 by all the RBOCs in the country.
7 And the Litespan box, as they call it,
8 will be the growth path of choice for SBC in
9 Project Pronto. Not only that, I'll get into
10 the RT configurations and the different flavors
11 in a second. But basically the improvement
12 that's been made in the Litespan boxes is that
13 beginning with Release 10.1 of the firm ware,
14 the software, if you will, that drives the DLC,
15 and continuing with Release 11, you can now
16 carry ATM cells across the DLC fabric to the
17 outbound fiber and not have -- you know, fiber
18 doesn't break ADSL anymore.
19 The way you do this, as Carol said, is
20 with plug-in cards. They are called -- for ADSL
21 they are called ADLU cards, and they have
22 integrated on the card both a DSLAM
23 functionality and a splitter functionality. So
24 that for ADSL, the topology works such that you
25 send the ATM cells for ADSL across the fabric

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1 destined for this separate fiber on the outbound
2 side, and you send the voice part of the signal
3 over to the traditional circuit switched time
4 division multiplex side of the DLC.
5 MR. SRINIVASA: Is there a block
6 diagram?
7 MR. BOWEN: Yeah. In fact,
8 attached to their February 15 submission to the
9 FCC, there is a block diagram.
10 MS. GENTRY: This was --
11 MR. BOWEN: You guys have seen
12 this, I know. Let me just hand this up to you,
13 and I'll talk to that, and it will make more
14 sense.
15 The way this works is that in the
16 central offices that are affected, there is an
17 average of 16 to 24 remote terminals per central
18 office. You can see that 16 to 24 in the RT
19 there. And then for each RT, there is an
20 average of three to five serving area interface
21 locations also called feeder distribution
22 interface boxes.
23 And between the remote terminal
24 location and the SAI is copper feeder. So you
25 might think that the fiber goes way out. It

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1 doesn't. It stops at the RT, and then you have
2 the traditional copper feeder cables running
3 from those RTs out to the SAIs. And you pick up
4 distribution pairs there.
5 That's the cross-connect box where you
6 interface feeder pairs and distribution pairs.
7 MR. SRINIVASA: Secondary
8 interfaces?
9 MR. BOWEN: Yes, yes. So the
10 serving technology is that they will -- by being
11 able to put a card -- plug in into the channel
12 bank of these new Litespan units. That card
13 will do the DSLAMing and the splitting of the
14 voice and data signals on the spot and send the
15 two on different paths back to the central
16 office.
17 Make no mistake: You can also do every
18 other flavor, potentially, of DSL by using
19 different plug-in cards. I mean, you have voice
20 cards. You are bound to have HDSL cards because
21 that's how they provision T1s. We are at the T4
22 technology right now, but they have HDSL cards.
23 They have or will have IDSL/ISDN cards. And
24 they'll have SDSL or HSDSL cards as well to plug
25 into these same chassis, these channel banks, on

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1 this DLC.
2 MR. SRINIVASA: It has to be from
3 the same manufacturer?
4 MR. BOWEN: Yes. Right now it
5 does. That is, there is no plug compatibility,
6 let alone interoperability in DLCs right now. I
7 mean, there is plug compatibility in D4 channel
8 banks back in the central office, but it is not
9 there yet for the terminal DLCs.
10 Therefore, you must use Alcatel cards
11 right now and Alcatel boxes, Fujitsu cards and
12 Fujitsu boxes, AFC and AFC and so forth. It has
13 to be manufacturer-specific right now. So this
14 new topology -- that's one of the potential
15 near-term down sides is that you are restricted
16 to using a card that fits into that
17 manufacturer's DLC.
18 So right now under Project Pronto --
19 this is not just SBC we are talking about now.
20 Under Project Pronto to use this, we will need
21 to use at the customer premises Alcatel modems.
22 I use that term loosely. This is the device at
23 the customer premises that talks to the rest of
24 the world.
25 So that's the serving topology. Now,

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1 what we want to be able to do is to use -- I
2 said the network is potentially great, and it is
3 because it pushes fiber way out from where it is
4 right now. It limits the copper segment at the
5 end of that copper-fed technology, the 12,000
6 feet. We all know from arbitrations or just
7 knowledge or whatever, the 12,000 feet means you
8 are never going to have any load coils on that
9 circuit. Bridge taps will be within the
10 expected limits, no repeaters.
11 I mean, this is going to be clean
12 copper at the end of that circuit that you can
13 use. You can achieve full rate ADSL any day of
14 the week on a 12,000-foot copper segment. And
15 what counts is the DSLAM is sitting here at the
16 end of that copper segment. So that's all we
17 really care about. You can run back from there
18 feet or miles or whatever to the central office
19 because it is all just fiber, and there is no
20 distance limit once you have converted that to
21 either an ATM byte stream or time division
22 multiplexed time slot. It can go forever.
23 So that's the great potential of the
24 topology.
25 MR. LEAHY: Steve -- Tim Leahy for

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1 the record. I'm sorry to interrupt. That's a
2 pretty good description, I think. But what I
3 am -- what this all means, I think -- and I
4 would just like to engage in the discussion,
5 Steve. The focus is now on the RT, and the
6 problem now, given that there is not this
7 universal card that can handle all the different
8 manufacturers, the problem is one of space. Is
9 that where we are headed?
10 MR. BOWEN: I'm getting there. Be
11 calm; be patient.
12 MR. DRAKE: That's one of the
13 problems.
14 MR. BOWEN: So that's the overall
15 serving topology. You have got fiber fed going
16 a lot further out there as the first real push,
17 given HFC wasn't an economic way to go. This is
18 the first real push -- of course, driven by the
19 much larger bandwidth demands that we can now
20 place on these kinds of service.
21 Now it proves in to do -- pushing the
22 fiber out further, not all the way to the curb
23 yet. But it proves in to push the fiber out to
24 the RTs. Then you say, "Okay, that's great.
25 Now, how do I use that as a data CLEC?" Here is

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1 how we want to use that serving topology, and
2 here is how we think it can be made really good
3 for all of us.
4 There are three kinds of RTs. There
5 are controlled environmental vaults or CEVs.
6 There are cabinets, and there are huts.
7 Actually CEVs and huts are kind of the same
8 notion. They are big rooms. One is
9 underground; one is not. Huts are above ground.
10 They are different sizes. They have minihuts
11 and maxihuts. A big one is maybe 10 feet by 20
12 feet.
13 And in there you put racks, just like
14 in a central office. There is rack-mounted
15 equipment. It was first-generation stuff, and
16 so you -- it wasn't hardened environmentally.
17 So you had to have air conditioning in there.
18 That's why it's controlled environmental. The
19 CE of CEV means that, air conditioning.
20 And you have basically rack-mounted
21 equipment that is sitting out in a field
22 location, the same kind of equipment you would
23 put in a central office originally. That's kind
24 of -- that was the first push out.
25 The current push and the one that SBC

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1 is pushing out there for all of the upgrades is
2 cabinets. Now, there are a couple of kind of
3 cabinets, too. There are cabinets that have
4 more space in them. There are basically
5 rack-mounted equipment in cabinets, too. The
6 current kind of cabinet that SBC is going to
7 roll-out big time is called an Alcatel 2016.
8 I have pictures with me if you want to
9 see those. But basically we call this is on the
10 panel -- Alcatel's rep, Neal Ransom, agreed we
11 can call these things shrink-wrapped cabinets
12 because they are configured with no extra space
13 whatsoever for anybody to collocate separate
14 pieces of equipment. These are configured with
15 six, nine, or 12 channel bank assemblies and a
16 supporting common channel signalling equipment
17 and power supplies, so forth.
18 It is a unit you prop down on a
19 concrete pad and say, "Okay. Here comes the
20 copper feeder cable into the thing." It is not
21 cross-connected. It is wired into what you
22 might want to think of as the back plane. So
23 that when the currents plug in, and there are
24 four appearances per cards on these ADLU
25 cards -- when the currents plug in, they are

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1 hooking up with the copper feeder that has
2 already been wired into the back of where the
3 cards plug into, the back plane.
4 So you can't easily pull off pairs in
5 this integrated RT configuration and do anything
6 with them. That's why SBC is saying, "I'll give
7 you access to the copper," but guess where it
8 is? It is out at the SAIs. It is not at the
9 RTs under this new configuration.
10 Don't forget, in CEVs and huts, you can
11 get copper coming into there that is terminated
12 on cross-connect facilities. You can pick you
13 pairs there. But in California, for example, 74
14 percent of the installations right now are
15 cabinets. It is a very small percentage of
16 installations that really are CEVs or huts.
17 And so there is no room to collocate
18 facilities in these brand new Alcatel cabinets,
19 period. It can't be done. There is very little
20 room in most CEVs and huts because those were
21 built for, in effect, one carrier's demand.
22 That is, you know, they built them thinking,
23 "Okay. I'm pushing fiber out here. What do I
24 need to serve my customers?"
25 And they sized them for a five- to

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1 ten-year period on that basis. And so there is
2 not a whole lot of room in those either.
3 MR. BORDERS: Excuse me, may I
4 make a comment? Dave Borders, Southwestern
5 Bell. In our present configuration with our
6 RTs, we don't -- it is a splice. They are not
7 brought in for a cross-connect facility. It is
8 our standard procedure to run a copper cable to
9 our SAI.
10 MR. BOWEN: Okay. So it is the
11 same way there as it would be in the
12 shrink-wrapped --
13 MR. BORDERS: Exactly. There is
14 no difference. It is a splice point. It is not
15 a frame type situation -- or a cross-connect
16 type situation.
17 MR. SRINIVASA: It is a preformed
18 splice cabinet. You just come in there and
19 connect?
20 MR. BORDERS: Well, the cables are
21 spliced. There is not a -- he sort of alluded
22 that in the configuration we have now -- or at
23 least I may be mistaken. But I thought he was
24 referring that we have a cross-connect point in
25 our RTs now, which we do not.

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1 MR. SRINIVASA: There is no FDI
2 feeder distribution type of interface?
3 MR. BORDERS: There is a splice
4 that comes out of the RT and goes to the SAI.
5 There is no cross-connect or anything that you
6 could break and make. It is a pure splice.
7 MR. BOWEN: Okay. I stand
8 corrected then, and I appreciate that. The
9 issue for us is always going to be not just
10 technical feasibility but economic feasibility,
11 too. I can tell you, as we told the FCC, every
12 data CLEC at the FCC last week said adjacent
13 collocation at RTs or near SAIs is not going to
14 work.
15 That is, for us, at least the data
16 CLECs, there is not enough value per RT. I
17 mean, think about this. There is an average of
18 20 of these per central office. There is an
19 average of 80 SAIs per central office. We are
20 not going to be able to go out there
21 economically, any one of us, and say, "I guess
22 I'll go out there and since I can't get access
23 to the copper at the RTs, I'll just collocate
24 out next to the SAIs."
25 That would be 80 adjacent collocation

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1 facilities per central office if we want to
2 cover the whole subtending area. That's not
3 economical, period. Nobody is going to do that.
4 No data CLEC is going to do that. For voice
5 maybe, I don't know, not for data because the
6 penetration rates are way too low even for SBC's
7 own data services. They couldn't justify, I
8 don't think, collocating just for data out next
9 to the SAIs.
10 So we are looking for better solutions
11 in that, and we think we have them. One
12 solution -- and SBC, I can tell you right now,
13 is disputing this with us. We are saying that
14 the DSLAM functionality has moved from a
15 separate box, separate rack-mounted unit onto
16 the card. And we are saying what we want to be
17 able to do is to buy the cards ourselves from
18 those manufacturers until we get to plug
19 compatibility.
20 We have to buy Alcatel cards from
21 Alcatel and plug into Alcatel boxes. We want to
22 be able to buy those cards from Alcatel, and we
23 are looking for the right paradigm. We think it
24 is collocation. We want to plug in our cards
25 into the same slots that they plug their cards.

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1 Now, the background here is that -- I
2 think you probably already know this. SBC has a
3 request pending at the FCC that they made
4 February 15 saying, "There is an issue here that
5 we are -- we think we are right on. We want you
6 to tell us that we are right. We think you
7 would have to grant a waiver to us or tell us
8 that we are correct."
9 We think that we should be able to own
10 the ATM switches in the central office called
11 OCDs and the plug-in cards, the ADLU plug-in
12 cards at the RTs. Even those are user-provided
13 services, please agree with us that we should be
14 able to own these.
15 And in that submission, they said, "We
16 thought about CLECs owning these, but decided it
17 would be too hard for all these reasons that we
18 have."
19 MR. SRINIVASA: Let me ask you
20 this: Now, it is not just installing the card
21 like it is. You have to monitor if the card is
22 okay if it is failed are not. Is there one
23 RDR-type interface? Like, for example, is there
24 a data type of interface which monitors, polls
25 all of these cards that are installed in that

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1 chassis, in that mother board or whatever it is
2 in that box? It has to pull and monitor and
3 send that network management type of
4 information, if the card has failed or if there
5 is a problem. Something has gone bad.
6 Where would they send it to? If there
7 are multiple owners, do you have to have
8 multiple interfaces?
9 MR. BOWEN: Well, there are two
10 things you have to do. One is kind of a
11 baseline, "is the card alive or not?" And we
12 can monitor the circuits from our end, and we
13 can tell if the circuit is down or not and run
14 trouble tickets to find out where the problem
15 is.
16 The other thing you have to do is use
17 the element management, as I said before, to
18 configure permanent virtual circuits that use
19 the central-office-based equipment and that card
20 all the way to the premises to say, "Okay. This
21 customer gets a PVC, unspecified byte rate
22 running at 1.5 megabytes down, 384 up. That's
23 one example of the PVC.
24 MR. SRINIVASA: This is a firm
25 ware monitoring. It is not -- it's the

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1 hardware. Physically -- a fire or something
2 happened, a transistor blew up or some sort of
3 connector blew up and the card failed or maybe
4 the performance has degraded.
5 MR. BOWEN: I don't know that even
6 the Alcatel equipment will be able to monitor
7 the cards themselves.
8 MR. SRINIVASA: Is there an
9 end-plus-one type of protection for those? If
10 one fails, you have to switch over to something
11 else?
12 MR. BOWEN: No. These -- what
13 happens is right now the cards have four
14 appearances per card, and you have feeder pairs
15 coming in that will use -- if you have four
16 pairs coming in, it will use all four of those
17 pairs.
18 There is no way to fail over to a
19 different card because, in effect, the pair is
20 hard wired into the back of that card if you
21 know what I mean. That is, you have the field
22 pairs coming in on the feeder cable that come up
23 to the back plane, wired to this appearance, to
24 this card appearance, four pairs per card.
25 And if you have -- if you have a

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1 failure on that card, it could take down all
2 four or could take down one, but you're going to
3 have to send a truck out there anyway to
4 basically pull the card out and put a new one
5 in.
6 MR. SRINIVASA: So it is not like
7 the ADSL environment life line. You can make
8 telephone calls and all of that.
9 Now this is out, there is no
10 protection. You know, DLCs, there always used
11 to be protection.
12 MR. BOWEN: Like I said, the voice
13 and data are split. With a Siercor splitters,
14 for example, centrol office based splitter, they
15 are designed with -- so when you pull the cards
16 out, the voice still works. You can pop that
17 card out of that Siercor splitter, and the voice
18 stays live. You don't lose the narrow band
19 voice signal when you pull the card out of the
20 Siercor splitter.
21 I don't know this for a fact, but I'm
22 assuming the same kind of technology has been
23 enabled by Alcatel at the RT because they know
24 they have to support 911 and the usual voice
25 services. So it would be stupid to build a

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1 brand new card and a brand new box that would
2 cause the voice to go down if the card failed.
3 It would make no sense.
4 Alcatel is not stupid. So you guys are
5 doing it the right way.
6 MR. RAJAGOPAL: What is in the
7 space of these cards? If you go and look at
8 these cabinets that SBC is rolling out, it would
9 just be blanks? These cards have to go into
10 these blanks?
11 MR. BOWEN: Yeah. Here is a
12 picture of an Alcatel 2016. This is the
13 next-generation cabinet we are talking about.
14 Let me give you a better -- you have seen this,
15 Tim.
16 Here is the CBA-1, CBA-2. These are
17 where the cards plug into. You can kind of see
18 the slots. I think I have a picture of a card
19 here someplace. Maybe I don't. Hang on. It is
20 almost like a card that fits in your PC only
21 bigger. It is a long skinny thing. Here is
22 one, ADLU card.
23 It goes right in those slots right
24 there, right in these slots right here, plugs in
25 there. You lock it down, and then it has four

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1 appearances. So there is no wiring to do. You
2 just take the card, and you plug it in there.
3 All the wiring is in the back, like on a PC.
4 So what we are saying is we ought to
5 consider -- well, I'll get to the broad-band
6 part in a minute. We ought to consider that,
7 but where we want to get to eventually, we hope,
8 is plug compatibility. That is not going to
9 happen right now for the reasons that the
10 vendors gave at the FCC forum.
11 At a minimum we want to be able to buy
12 Alcatel cards that might have capabilities that
13 SBC doesn't want to offer or that ASI doesn't
14 want to offer. For example, we wanted to offer
15 SDSL a year or so ago, and the response we got
16 back was "what's that?" We want to be able to
17 take advantage of whatever cards the vendor
18 makes.
19 And the vendor will make cards --
20 whatever people demand, vendors are going to
21 make. They are going to make, of course, ADLU
22 cards because that's what SBC and SBC ASI want
23 to use right now. So, of course, they are going
24 to make those.
25 We've also talked -- I've talked to

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1 Neal Ransom, who is one of the heads of
2 Alcatel's RT deployment both before and after
3 the meeting. And he said we would be happy to
4 make cards -- you know, whatever standards are
5 out there, we will make cards that will comply
6 with those standards.
7 So you're going to have HDSL-2 cards.
8 You're going to have SHDSL cards when that
9 technology becomes available. You're going to
10 have IDSL cards. We want to be able to buy any
11 card that the vendor makes and plug it in. And
12 it can be done using the collocation paradigm,
13 using either physical or virtual.
14 MR. SRINIVASA: Whatever rate they
15 quote? It's their box.
16 MR. BOWEN: But what we need, we
17 need to be able to buy that card from the
18 vendor, probably not as good of a price as SBC
19 can get, but we will do our best, and plug that
20 card in that slot and then access to UNEs, if
21 you will. One of them is the copper subloop
22 that goes from there out to the customer
23 premises, and the other in effect is a fiber
24 subloop that goes from there back to this
25 handoff at the OCD or the ATM switch.

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1 MR. SRINIVASA: So they decide at
2 Alcatel, all cards are going to be Alcatel
3 manufactured cards. Paradyne, Copper Mount and
4 all of those, they can't do anything at this
5 point in time?
6 MR. BOWEN: Right now you are
7 right. The vendors will not allow anybody
8 else's card to live within their DLCs. One of
9 our vendors is Paradyne as a matter of fact. I
10 can tell you that they are pretty concerned
11 about this. And they have asked Alcatel to
12 disclose the form factors and the power
13 requirements and the pin-outs and so forth so
14 they could build it. If they knew the stuff,
15 they could build a frame, too, just like anybody
16 can build a card to go into a PC. The
17 difference is there is interoperability and plug
18 compatibility on PCs, and there is not in these
19 DLCs.
20 MR. SRINIVASA: This is only for
21 when the loop length is so long where they have
22 to deploy DLCs, fiber.
23 MR. BOWEN: This picks up an extra
24 30, 40 percent of the market. You can reach --
25 right now you can reach maybe 40 percent of a

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1 central office subtending area with current --
2 I'm leaving IDSL aside because it is kind of a
3 last gasp "let's give them something better than
4 a modem," but it is not very interesting when it
5 comes right down to it. You need higher
6 bandwidth than that. People are demanding
7 higher bandwidth than that.
8 So you need to get up into the 384, 512
9 area to get even halfway interesting for people
10 who want DSL. When you add fiber-fed DLC
11 serving technology, you add another 40 percent
12 coverage. So you are getting to 80 percent
13 basically where before you were just talking
14 somewhere around 40, 50 percent of that area,
15 which is great.
16 The issue is the architecture needs to
17 be deployed first to give us equal access to it
18 and second so it is not a closed architecture.
19 That's why we are saying, "We want you to deploy
20 this architecture, but we want to get to the
21 point where we can own the cards, too."
22 The other solution we told the FCC
23 about was when you buy these new cabinets, what
24 you should be doing is buying them -- Wayne
25 Masters from SBC said, "Listen, when we put in

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1 new CEVs, we are building them with 25 percent
2 more capacity than we need for ourselves so we
3 can accommodate three to five CLECs collocating
4 at those new CEV locations."
5 MR. RAJAGOPAL: That's because if
6 you put one card, you are basically making ready
7 for three other customers on that card?
8 MR. BOWEN: This is the CEV big
9 rack-mounted configuration, not the little
10 shrink-wrapped cabinet. But SBC said they will
11 be building more CEVs. They will do that. They
12 will build those with 25 percent more physical
13 room capacity than they need for themselves.
14 That way they can handle three to five CLECs
15 collocating stuff inside the RT, which is a good
16 idea. We support that.
17 What we told the FCC is use the same
18 principle for these new cabinets because the
19 cabinets will be used as the RT of choice going
20 forward. Buy an RT that has one more rack
21 space. These things here right now that I
22 showed you a picture of, they have in effect
23 three racks across. There's three vertical
24 assemblies on each side of those shrink-wrapped
25 cabinets.

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1 We are saying, "Buy a cabinet that has
2 four. Create one more rack space," because I
3 can tell you right now there are DSLAMs that are
4 known as pizza boxes. They are also known as
5 RAM, remote access multiplexers. You can put
6 those two- or five-inch pizza boxes in standard
7 telecom racks and have that be your, in effect,
8 stand-alone DSLAMing.
9 So it is possible if we had these
10 cabinets be just a little bit bigger, one more
11 rack space bigger, that we could even -- without
12 the card solution being there -- then we could
13 then use Paradyne and Cisco and Copper Mountain
14 and the other vendors out there in this separate
15 part of that same cabinet. That is, we could
16 rack-mount equipment -- collocate equipment in
17 racks in that spare rack out there in the
18 cabinet.
19 So that's what we suggested to the FCC.
20 The solution really is to, in effect, don't
21 build a new RT that is so small that has no room
22 at all for any kind of other collocation or
23 growth of any kind. This to us is the new
24 central office in effect.
25 And you don't -- if you are going to

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1 build a new CO, you wouldn't build it just to
2 serve your own needs. You build it to serve the
3 known needs of collocators, the same idea here.
4 If you are going to build a new RT, just as with
5 your own CEVs, build all the RT types so they
6 have the capacity to handle more than just your
7 own demand.
8 So that's kind of where we are coming
9 from. The broad-band offering is what SBC wants
10 us to buy. This in effect is a platform. It is
11 a permanent virtual circuit on this fiber fed
12 DLC serving topology. The problems we have with
13 that are all they are offering us right now --
14 and I apologize for the technicality here.
15 There are different types of PVCs, different
16 quality of service levels, if you will.
17 They are called a number of things.
18 One is an unspecified byte rate. That is a PVC
19 that you use for Internet access because it is
20 bursty. It has high latency, high delay in it.
21 You don't care because you are going to the Net.
22 The Net by itself has plenty of delay built into
23 it, you know, the "worldwide wait."
24 If you want to move from Internet
25 access to where we are all going, which is voice

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1 over DSL or video over DSL, you can do those
2 over ATM networks. But you have to have a
3 different kind of PVC, less delay, less jitter.
4 There is a bunch of technical parameters that I
5 won't go into, but you need a different kind of
6 PVC that is already supported by the ATM SPECs.
7 There is three different -- there is an
8 ATM forum that has classes of QOS. There are
9 two other kinds of standards that apply to ATM.
10 But with the variety out there right now that
11 every ATM network must support, must support to
12 be compliant, if you went to anybody else you
13 said, "I would like to have one of these maybe a
14 constant byte rate permanent virtual pipe," they
15 would say, "Sure I can do that. It's to my own
16 advantage."
17 All we are being offered on the
18 platform right now from SBC is unspecified byte
19 rate.
20 MR. SRINIVASA: You say
21 unspecified, it is variable byte rate?
22 MR. BOWEN: No. That is a
23 different QOS. The unspecified byte rate
24 happens to be useful for Internet access which,
25 coincidentally, is what SBC is offering to their

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1 retail customers. We want to be able to do much
2 more than that, and the technology will allow
3 it. But our problem with the platform -- one of
4 the problems with the platform right now is that
5 we want to be able to do much more than that,
6 and we can't with what we are being offered on
7 the platform right now.
8 And Wayne Masters at the FCC said they
9 would be happy to consider expanding the product
10 offering, but that's why we think if we -- if we
11 have the right to plug the cards in or to have
12 enough space to do our own thing next door in
13 the same RT, then we aren't constrained by
14 somebody else's choices of when to roll the
15 technology out.
16 MR. SRINIVASA: Say, for example,
17 it's one more rack. I don't know. Typically
18 how many racks can be put into a CEV? It
19 depends. The remainder of all of them are going
20 to be SBC's, and one for all the CLECs.
21 Do you think it is going to be
22 adequate?
23 MR. BOWEN: Well, like I said, you
24 can put a DSLAM in a very small amount of
25 vertical space. You are talking about racks

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that are 19, 20 inches wide. That's a standard telecom width. But the vertical space for you need for a pizza box DSLAM is minuscule.

MR. SRINIVASA: When you say that, how many subscribers can -- these terminals are going to be for SAIs, for 200, 600 megabytes.

MR. BOWEN: The Litespan 2016 cabinet -- the Litespan covers 2,000 living units basically. That's the basic fully-configured size of an RT. If we get 1 percent of the people there -- that's 20. So you don't need a very big DSLAM to serve 20 customers. If we get 5 percent, you know, we get 100.

MR. SRINIVASA: For one CLEC?

MR. BOWEN: Like I said, the vertical space you need for these is literally a couple of inches. So one person puts a pizza box in there and takes up 2 inches of vertical rack space. Another one takes up this much more, and pretty soon you have got the same three to five CLECs living out there that you can in the CEV expansion.

MR. SRINIVASA: What happens from the CEVs back to the central office? Is that

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going to be multiplexed onto the OC3 wire as shown in here in the outline?

MR. BOWEN: As I said, you can do it that way or you can take it over the SONET-based TDM. Right now what happens interoffice is that our ATM cell traffic coming out of our central office based DSLAMs goes right onto the same fibers as all of the rest of the traffic in the world. We are all getting, in effect, time slots, SONET channels, on a single set of fibers.

So we can ride either the OC3C ATM fiber if it is dedicated in that fashion with our ADSL traffic or we can ride the TDM side for that and everything else.

MR. SRINIVASA: So that feeder -- we should call that the feeder, could be OC3 or higher -- can it be OCX?

MR. BOWEN: They are configuring these right now with, I believe, four OC3s, one OC3 for data, and three OC3s for voice. You can bump -- and I have it in the package here as well. You can bump the electronics to OC12. That's an offer configuration from Alcatel, and obviously you can just keep right on going. The

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fiber basically is an inexhaustible resource.

You just bump the electronics at both ends, and you can just have more through-put.

MR. SRINIVASA: One pizza box, say for example, that's where all the DSLAMs are going to be located at. Do they need to buy one whole OC3?

MR. BOWEN: No, no. What you can do is -- if you are going to ride the TDM side, you are going to need an add/drop multiplexer and a fiberoptic terminal integrated into that stack there.

If you are going to buy capacity on that OC3C, you use what's known as a statistical multiplexer, and you roll out your ATM traffic into theirs, and it all goes back over that fiber and gets handed off back at this router.

MR. SRINIVASA: These are cost based rates. If you do that, it's only some part of the cost of the fiber, plus the SDSM if they have that, whatever, the cost of that. Right?

MR. BOWEN: Right, right. And what is happening, this upgrade -- forget the new ones. The upgrade, what that means is, they

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are beefing up the back plane to be able to handle more through-put because if you are doing voice, it is a little tiny DSL channel. If you are doing ADSL, it's six megabytes downstream potentially.

So the upgrade is beefing up the back plane to be able to handle gigabyte sized pipes and doing a firm ware upgrade to release 10.1 or above for the Alcatel boxes. That's the upgrade.

The new install are these Litespan 2016s, which I showed you on the picture. Those already come equipped with all this latest technology.

MR. SRINIVASA: I'm trying to see how this is going to be unbundled, the loop. Then either it is virtually collocated in their box, or you have a rack space where you can provide your own.

MR. BOWEN: Correct.

MR. SRINIVASA: Then some space, whatever amount it takes on the OC3 pipe or OC12, if they have it, you have to have a price in there, and it's got to be unbundled. Then it comes in here to a SONET and their equipment

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1 cost at the other end of that, the cost of that,
2 that needs to be unbundled.
3 MR. BOWEN: Right, right.
4 MR. SRINIVASA: From there to a
5 physical collocation space if you have your own
6 ATM, you have an extension from that SONET
7 common equipment. Right? Those are the things
8 that need to be unbundled.
9 MR. BOWEN: Correct. We will take
10 it at a fiberoptic terminal probably in a
11 central office. We will take the handoff -- the
12 SONET comes into an FOT, and we take it from
13 there at an OC level signal, or you can have it
14 broken down into DS3 if you haven't got
15 OCS-level capacity. But those are standard,
16 understood interface components already. There
17 is nothing magic about Project Pronto in that
18 sense.
19 MR. SRINIVASA: Does the SONET
20 common have the 18 ports --
21 MR. BOWEN: No. The SONET will --
22 traffic will come into the SONET and then get
23 broken between TDM circuit switch traffic and
24 the ATM, and the ATM traffic goes off to the ATM
25 switch.

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1 MR. SRINIVASA: So then you could
2 price that ATM port cost. Plus there are some
3 common costs --
4 MR. BOWEN: Yes, right. You need
5 to -- like I said, we have to have a cost study
6 that we performed for this already, and we have
7 all of these components studied. But the ATM,
8 you cost that on a per-port basis because that's
9 how you take the handoff on a per-port basis.
10 MR. SRINIVASA: Let me ask you
11 this: Under the scenario that, you know, a card
12 which goes in at the remote site -- it could be
13 an ISDL or an HDSL-2, whatever flavor it is.
14 That card, if it's priced on an unbundled basis,
15 do you think you are still better off buying on
16 your own rather than paying an unbundled network
17 element rate for that?
18 MR. BOWEN: Yes and so. That is,
19 let met put it this way: There is no doubt in
20 my mind, even though I haven't seen the
21 contract, that SBC's contract with Alcatel has
22 prices that we could never hope to approach on a
23 unit price basis for plug-in cards.
24 So I'd just as soon get their price for
25 it, if I could. However, I'm very concerned

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1 that they won't -- if they were to own the
2 cards, that they wouldn't choose to rollout,
3 say, HDSL-2 cards so I could use them because
4 that's going to cannibalize their T1 market.
5 So if I have an HDSL-2 card running
6 over two wires that I could offer somebody 1.5
7 symmetrical for 50 bucks a month, that is death
8 to the T1 prices, just sheer death. It will
9 drop the bottom right out of the T1 prices for
10 SBC, and I would be afraid, too.
11 So my fear is that even though Alcatel
12 will build the cards to support all the flavors,
13 unless we get to own those cards even though
14 they cost us more on a price basis, we won't get
15 to use them until SBC is ready to use them for
16 their own services.
17 MR. SRINIVASA: Do you know --
18 that means essentially you want to virtually
19 collocate their card in that --
20 MR. BOWEN: Right. I don't think
21 it is practical -- I could be wrong about this.
22 Let me put it this way: The most practical way
23 for us to collo those cards is through virtual.
24 That way, they are stocking -- in effect,
25 everybody owns the same kind of card.

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1 It is all Alcatel cards. They are in a
2 warehouse. They put them on their trucks, and
3 it is really a bookkeeping matter to say, "Okay.
4 I have got some portion of this stock of spare
5 cards that I have sold you for a dollar a
6 piece." That's the virtual collocation
7 paradigm.
8 And when one of my cards breaks, and
9 you have to roll out there and replace it with a
10 card, then I will give you a replacement card in
11 your inventory to keep my inventory levels up to
12 the right -- whatever you tell me they have to
13 be. So it's really -- I mean, they stock -- it
14 isn't as though you have 35 different CLECs with
15 35 different manufacturers' cards. Now you have
16 Alcatel cards of maybe three, four, five
17 different flavors.
18 You have ADSL. You have HDSL-2 coming
19 up real soon now. You have HDSL, IDSL and maybe
20 SDSL and SHDSL. That's five. That's the
21 flavors. With those five flavors, though, I
22 mean, you can do a huge amount of
23 differentiation in the market.
24 MR. SRINIVASA: Virtually
25 collocating, you want them to do the

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1 maintenance. You don't want -- there is an
2 option to virtually collocate --
3 MR. BOWEN: There really isn't
4 maintenance.
5 MR. LONG: Can I address --
6 MR. BOWEN: When these cards
7 break, you pop them out and put a new one in.
8 You say, "This card is defective. Get rid of
9 it."
10 MR. LONG: Randy Long,
11 Southwestern Bell. During the discussion of the
12 remote terminals, I understood that we were
13 maybe talking about two different topics, one
14 being a splice location in a cabinet. Also
15 collocation issues came up. We know that
16 collocation can occur in any eligible structure
17 including controlled environmental vaults, huts
18 and cabinets. Certainly you could do cabinets
19 within a central office as well as some remote
20 terminal, some place.
21 But I think the issues all surrounding
22 the collocation, particularly, the virtual ones,
23 are all being considered in a pending docket
24 where we have testimony filed, and we will be
25 going to hearing shortly, and that's in Docket

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1 No. 21333.
2 That's collocation. And that's to
3 decide the issue of the permanent rates and
4 costs for collocation. Types of collocation
5 arrangements are also being addressed in the
6 that proceeding.
7 MS. BOURIANOFF: Michelle
8 Bourianoff on behalf of AT&T. Randy, you are
9 correct that there is a collocation proceeding
10 ongoing. And the phase that we are in in that
11 collocation proceeding is to establish permanent
12 prices.
13 I don't believe that virtual
14 collocation of cards and remote terminals is
15 something that is being addressed in the costing
16 proceeding. Terms and conditions for virtually
17 collocating cards in remote terminals was not
18 established during the terms and conditions
19 portion of the collocation proceeding that took
20 place last year.
21 So my understanding is that is not part
22 of the costing proceeding that is happening
23 later this month -- later this summer.
24 MR. LONG: Specific to the issue
25 of the cards for this topic that we are talking

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1 about, I'm not aware that it's part of the costs
2 or rates either, but the concern is more than
3 one talking about virtual collocation and where
4 that takes place.
5 Virtual collocation takes place in the
6 central office. It doesn't take place in any
7 other eligible structure, and we have been
8 talking about -- correct me if I am wrong,
9 Mr. Bowen -- about virtual collocation in a
10 remote terminal.
11 MR. BOWEN: I was talking about
12 technical feasibility issues. I mean, there is
13 all kinds of regulatory boxes that we can all
14 talk about, too, which I am happy to do as well.
15 I am talking about technical feasibility only
16 right now. I'm just telling you what's
17 possible, and then we can talk about what box it
18 goes into.
19 MR. LONG: The other piece I was
20 concerned with was dealing with the safety and
21 security issues which are a topic in the
22 collocation proceeding. Placing equipment
23 within there, having access to that, how does
24 that occur, those type of issues.
25 MR. BOWEN: You know, we just did

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1 this in the California case and addressed --
2 tee'd up right now the issue of these cards
3 being considered to be collocation types of
4 items. And SBC put forward a cost study there
5 which actually had costed and priced out card
6 readers on cabinet doors for access by CLECs to
7 cabinet-based RTs.
8 I think I have the pictures with me of
9 those card readers that -- and this was back in
10 like January of this year when the costing
11 person was based in St. Louis SBC asked for
12 information.
13 MR. SRINIVASA: Are you familiar
14 with the provisions of T2A? There is virtual
15 collocation with maintenance options for the
16 CLEC and virtual collocation for -- for
17 Southwestern Bell to maintain that from central
18 offices?
19 The eligible structure that you are
20 talking about, CEVs, huts and vaults whether or
21 not virtual collocation is permitted in there,
22 can -- who is offered the T2A -- whoever is
23 offered the T2A should be able to address that.
24 MS. BOURIANOFF: Nara, I think
25 that is in the tariff. I don't think that's a

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1 provision of the T2A. I think it is separate
2 from the T2A. I mean, I don't want to speak to
3 here what the provisions of the virtual
4 collocation tariff are and whether or not
5 virtual collocation is available only in central
6 offices or also eligible structures. I mean,
7 the terms and conditions of the tariff are what
8 they are.
9 But I just want to speak to Mr. Long's
10 continued proposition that terms and conditions
11 issues are being addressed in the collocation
12 costing proceedings that are ongoing. Terms and
13 conditions were established last year in the
14 tariff and finally approved in October and
15 November. And the only thing that is currently
16 at issue in the ongoing collocation proceedings
17 is costing of the terms and conditions that have
18 already been established.
19 So it might be appropriate to address
20 these type of issues in this proceeding or in
21 some other proceeding because I don't believe
22 those are being addressed in the collocation
23 proceeding.
24 MS. GENTZ: Susan Gentz on behalf
25 of Mpower. I wanted to just clarify that there

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1 is one piece of terms and conditions that is an
2 issue in 21333, and that's microwave collo. And
3 that was at the Commission's choice because it
4 came up late in the 16251 proceeding, that issue
5 on how that will be done in the 21333.
6 MR. SRINIVASA: Commission order
7 for the DACS equipment, certain types of cards
8 that were not included in terms and
9 conditions -- the prices and terms and
10 conditions had to be established in 21333. It
11 is only for the DACS equipment OC3.
12 MS. GENTZ: Right.
13 MR. LONG: And I didn't mean to
14 miscommunicate on that. I do recall that one of
15 the parties in that particular proceeding did
16 ask that we footnote any language of the terms
17 and conditions in the body of the tariff that
18 were associated with any of those rate elements
19 that would be the subject of a proceeding as
20 also being subject to investigation.
21 MR. SIEGEL: And just one other
22 thing. It has been awhile since I've looked at
23 the collocation with CEVs, huts and cabinets.
24 But to the best of my recollection -- this is
25 going back awhile. When the Commission set up

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1 physical collocation for CEVs, huts and
2 cabinets, I believe it was set up kind of as a
3 hybrid.
4 It was called physical collocation, but
5 I think -- and someone else here can correct
6 me -- that there may be a maintenance option for
7 SWBT to do the maintenance for the physically
8 collocated equipment at the CEVs, huts and
9 cabinets. I cannot state that for certain.
10 MR. BOWEN: Let me just point out
11 that I am not trying to fit what I said into
12 existing boxes because we all know that we all
13 live within regulatory boxes. What I am saying
14 is this is where the technology is, and I think
15 that, you know, every state is going to have to
16 take account of this reality.
17 SBC is rolling this topology in May or
18 June of this year over a three-year period.
19 This is happening right now. These RTs have
20 been ordered. They've been delivered. They are
21 going to be equipped, and they will be live.
22 And they have a Web site that says, "Here is my
23 next six months schedule for my RT rollouts for
24 these upgrades."
25 So whether or not a particular case

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1 right now encompasses these issues, I'm not
2 going to speak to right now because I don't
3 know. All I am saying is that the current
4 reality has moved, like technology always does,
5 it moves fast. And technology has moved to the
6 point where we aren't talking about separate
7 DSLAM units. We are talking about DSLAMs on a
8 card now that plugs into the chassis.
9 That's important to recognize here,
10 that the technology has moved so far so fast
11 that to stay up with it is very difficult for
12 any of us. But the reality is that these are
13 going to be plug-in cards with the functionality
14 on the card, which is great in terms of space
15 saving and functionality and so forth. It is
16 cheaper, smaller, faster.
17 But the reality is that when you try
18 and say, "Well, gee, does our collocation tariff
19 call that an eligible structure or not that
20 allows for virtual collocation," I don't know if
21 it does. But you know what? I think it should.
22 MR. LEAHY: And this is Tim Leahy
23 for Southwestern Bell. I think, again, the
24 issue goes back to space. And Steve's point
25 is -- I think his point was that his company

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1 doesn't expect to have the mass to make the use
2 of its own cabinet, make economic sense from his
3 perspective.
4 I'm not -- it is not clear to me
5 whether the CLEC community or whether other
6 CLECs share that view.
7 MR. BOWEN: All I know is that at
8 the FCC forum, there was NorthPoint. There was
9 Rhythms. There was Covad and ATG, and the
10 Commission staff asked everybody, "Does anybody
11 here want to do adjacent collocation by the
12 RTs?" And everybody said no.
13 MS. GENTRY: And let me stand -- I
14 was at the meeting also.
15 MR. DRAKE: Let's be clear.
16 William Drake with WorldCom. Again, that was
17 data CLECs. That was not CLECs.
18 MR. BOWEN: That is correct.
19 MR. DRAKE: There was no CLECs on
20 that panel. There are other points here --
21 MR. LEAHY: I think it is an
22 important point because essentially if we,
23 Southwestern Bell Telephone, is obligated as a
24 matter of policy to, in effect, host these new
25 technologies on a going-forward basis, that's a

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1 policy decision that I am not sure is consistent
2 with the intent of the Federal Act of 1996.
3 The point being, I think that there may
4 be enough mass within the CLEC community -- I
5 saw a figure recently of some consultants who
6 had come up with estimates of the number of
7 customers. And SBC had I think around 300,000.
8 Covad had around 100,000. I think NorthPoint
9 perhaps was around 50,000. I think Rhythms was
10 around 20,000.
11 The point is I'm not sure how that
12 ramping up, but if the intent of the Federal Act
13 of 1996 was to foster competition through
14 facilities and the innovation that the CLECs
15 frequently state that they will bring to the
16 market is most easily facilitated by their own
17 facilities, I haven't heard why they wouldn't
18 invest in the sort of remote terminals, the
19 cabinets we've talked about.
20 MR. BOWEN: I will tell you why.
21 The reason is, even assuming we wanted to put an
22 adjacent cabinet next to your RTs, right, then
23 we have to somehow run copper from there out to
24 your SAIs under your proposal to pick up the
25 subloops, the distribution pair subloops. That

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1 is, they have said that they will not let us
2 pick up cooper at the RT locations, period,
3 because it comes into the back plane of these
4 new cabinets.
5 So we have to put out there an average
6 of 20 adjacent cabinets next to the RTs and run
7 copper cables out to an average of four SAIs per
8 each of those adjacent locations.
9 In essence, that's an overbuild of
10 local network, which we don't want to do.
11 MR. SRINIVASA: I heard there is a
12 splice box that comes up. Do they have access
13 to the splice box?
14 MR. BORDERS: In the RT, no.
15 That's a splice point. We don't have to
16 unbundle a splice point.
17 MR. SRINIVASA: So they have to
18 run it to an SAI?
19 MR. BORDERS: Well, either that or
20 they collocate next to the SAI.
21 MR. BOWEN: And that would be 80
22 per central office on average, 80 locations on
23 average per central office.
24 MR. SIEGEL: I think, also, it
25 should be understood that this is a new

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1 technology. It may be that SBC had an option to
2 engineer this differently, not with the splice
3 point, and that they chose to use a splice
4 point. And now the fact that they have made
5 that choice impairs our ability.
6 I am not an expert enough in the
7 ongoing architecture to know if they had that
8 option or not, but if that were to become a
9 consideration, that would be something to
10 investigate.
11 MR. BORDERS: If our standard is
12 configuration -- if we don't deviate from our
13 standard configuration, how can this be some big
14 overblown plot to prevent them from collocating
15 or unbundling an item?
16 MR. BOWEN: I think the right
17 answer is we are not suggesting that SBC go back
18 in time and create a bunch of copper
19 cross-connects points where they don't want to
20 put them. That isn't the smart way to go on
21 this.
22 We are saying this new serving
23 topology, this fiber-fed DLC is -- can be a good
24 idea, but we need to be able to have more than a
25 single vendor and more than a single service

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1 type come out of that.
2 And I think the way you do that is to
3 employ a rational application of the regulatory
4 boxes, if you will, to say, "Okay" -- and they
5 do have choices. When they buy a new cabinet,
6 they can say, "I want to buy a cabinet that is
7 three racks wide" or "I want to buy a cabinet
8 that's four racks wide." That's a choice they
9 can make.
10 MR. SRINIVASA: Let me ask you
11 this: You know, just like prior to adding on
12 to -- this is in the plain old telephone service
13 world, voice communication. Adding on to your
14 tandem switching or trunking, that you are
15 getting the forecast from everybody and then
16 planning what the demand would be.
17 Are you doing something similar to that
18 in sizing your remote sites, forecast and trying
19 to get a demand?
20 MR. BORDERS: Well, from my brief
21 experience with -- I hate to bring this up, but
22 I will mention the word "line sharing" -- in the
23 outcry that arose from a forecast, I would guess
24 no.
25 MR. BOWEN: Well, here is the

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1 thing. I told Wayne Masters at the FCC forum --
2 I said -- he said, "You know, we have already
3 got these things ordered. They are already
4 being deployed, and now we can't go back and
5 order bigger ones." I said, "Well, Wayne, you
6 should have asked us. You should have told us
7 you were going to be doing this and said 'what
8 do you need? Are you going to want to live out
9 there with us? Are you going to want to have
10 your own separate equipment? If so, how much?
11 What do you think you are going to need?'" .
12 We were never asked. These choices
13 were made over the past year and a half without
14 any consultation at all from CLECs.
15 MR. BORDERS: And if we take and
16 we build on a forecast with no way that they can
17 guarantee and we end up with capital just
18 sitting out there not being used, we lose. We
19 are in the business, just like they are, to try
20 and make a dollar.
21 MS. CHAPMAN: We wouldn't have any
22 means of recovery. If their forecast says, "Oh,
23 we need all of this extra space," and if we
24 built it that way and that space went unused and
25 that's all this capital expenditure that we had

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1 to make for their benefit, we have no means of
2 recovery until they actually come through on
3 their forecast. We would not have any means of
4 penalties associated with the fact that they
5 didn't fulfill that forecast.
6 But they want us to build it out that
7 way, capital expenses that we -- that we are not
8 expecting necessarily to receive a profit on or
9 return on but just on the assumption that, yes,
10 they will do what they have said at the levels
11 that they have said.
12 MR. SRINIVASA: It would have been
13 equal access to the SAIs if you did not have the
14 splice point in there. They could have -- just
15 like you were connecting all of your DSLs and
16 all of the equipment in that remote transmittal
17 location, they can't do that even if they
18 collocate there. They need to extend the cable
19 all the way. They don't have the access to the
20 cable at that point.
21 Now, as part of your upgrading, are you
22 modifying that case also so they can get access
23 right there? If they built right next to your
24 RT box, if they set up their own box, can they
25 get access to the copper loop right there at

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1 that point?
2 MR. BORDERS: No, sir.
3 MR. SRINIVASA: It's not equal
4 then.
5 MR. LEAHY: Could I have just a
6 minute, please. Could we just take a second?
7 (Recess: 3:45 p.m. to 4:15 p.m.)
8 MR. MASON: We are back on the
9 record, and Mr. Leahy would like to say
10 something, I guess.
11 MR. LEAHY: Thank you, Your Honor.
12 I wanted to apologize to the Commission and to
13 Your Honors to the extent that I asked for a
14 break moments ago in a rather hurried way. I
15 meant no disrespect to Your Honors or the
16 Commission or my colleagues representing the
17 CLECs. So to the extent that was too abrupt, I
18 apologize. Thank you.
19 MR. MASON: Okay. We have
20 discussed, off the record, timing. We are going
21 to have a session on June 5, which is a Monday,
22 and we will talk about Pronto architecture and
23 other remote terminal issues, and Southwestern
24 Bell is going to provide the appropriate persons
25 at that time.

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1 We will also have an additional session
2 on Tuesday, June 27, covering additional DSL
3 issues, and the parties will file issues the
4 preceding week, Tuesday, June 20.
5 MR. LONG: Your Honor, Randy Long
6 for Southwestern Bell. Before we go off the
7 record, I know we are going to talk about one of
8 these topics in a subsequent meeting. I think I
9 might could clarify where Southwestern Bell is
10 to give everybody kind of a heads up and
11 understand.
12 Mr. Bowen was talking about the line
13 cards in the remote terminals -- cards in the
14 remote terminals. We were talking about
15 collocation. We were also talking about splice
16 locations. I think probably it was a
17 miscommunication or a misunderstanding that we
18 weren't answering questions that were being
19 asked.
20 But just for clarity, I think the issue
21 on the ownership of cards that are out there, is
22 before the FCC, and Southwestern Bell is waiting
23 for an answer on that. If Southwestern Bell
24 owns the card, then we will be offering, via
25 broad-band UNE, access to that.

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1 If we don't have ownership of that
2 card, then obviously it is an issue of the CLECs
3 providing those cards in those locations. So I
4 wanted to clarify because I know we were talking
5 about collocation. I know we talked about
6 splice issues out there, and it's just a
7 clarification of where we are.
8 We are just waiting for some feedback
9 from the FCC.
10 MR. BOWEN: I was waiting for that
11 to come across. But even with that, this is a
12 narrow -- the ownership of cards is a narrow
13 issue of the merger conditions applicable to SBC
14 and whether or not SBC or SBC ASI can own X
15 piece of equipment. Even if -- obviously if the
16 FCC concludes that SBC cannot own those cards,
17 then ASI must own those cards. And so,
18 therefore, we will be able to own cards as well.
19 That's a pretty obvious outcome on that front --
20 on that leg of the decision tree.
21 If the FCC says to SBC, "Yes, you can
22 own these cards," we don't think that that
23 decides at all the issue of our ability to also
24 own the cards and do what I talked about before
25 the break. So either way, whichever way the FCC

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1 goes, our position is we should get to own and
2 place those cards in this next generation DLC
3 equipment.
4 MR. SIEGEL: The part -- this has
5 kind of an update for the Commission on the
6 FCC -- and I don't know the answer to this. But
7 do you know -- did Bell Atlantic, GTE
8 participate in that forum and what their
9 position was on that next generation?
10 MR. BOWEN: Yes. They did, and
11 they don't have the same merger conditions issue
12 that SBC does. What they are saying off the
13 record and I think on the record as well -- this
14 is Bell Atlantic now. What they are saying is
15 that all this equipment is advanced services
16 equipment that they think that their data sub
17 should own. And the separate fiber that goes
18 back to the office is not even a common carrier
19 service and that we have to find our own way
20 back to wherever our own fibers or whatever even
21 if we get out there to the RT.
22 So it is frankly a more aggressive
23 posture than SBC has taken, and they are saying
24 that the whole nine yards is none of the above.
25 It is not service that they are required to

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1 unbundle, and that they intend to have their
2 data sub handle all of that stuff.
3 MR. SIEGEL: Maybe it might be a
4 good idea for the Commission to consider,
5 especially when we are talking about forum,
6 maybe having GTE at least in attendance -- or
7 suggest that they be in attendance on the 5th if
8 not the 27th.
9 MR. BOWEN: That is a good point.
10 We have been trying to discuss with GTE what
11 their plans might be that are similar to Project
12 Pronto, and what they have said to us -- again,
13 both on and off the record in other states -- is
14 that they do plan to roll out next generation
15 DLC equipment that is capable of handling DSL
16 just like Project Pronto is.
17 Their rollout is somewhat slower. It
18 begins the fourth quarter of this year, the year
19 2000, and we haven't yet been able to find out
20 any details about the vendors or the serving
21 topology or that kind of thing from them yet.
22 But they do -- they have told us they do plan a
23 somewhat similar rollout to SBC's Project
24 Pronto.
25 MR. MASON: And just for the

1 record, at the next meeting -- Mr. Bowen has
2 given a great presentation, but we have not
3 heard from the other CLECs, data CLECs and UNE-P
4 providers. So you obviously will have a chance
5 to address these issues at the next forum.
6 MR. BOWEN: Can I also just add,
7 just so the record is totally clear, when I
8 answered your questions about adjacent
9 collocation, first of all, I was speaking just
10 for Rhythms as a data CLEC. And second of all,
11 it is just as it might apply to RT locations and
12 SAI locations.
13 We actually -- as I said, we have
14 adjacent collocations at 22 COs in California.
15 We are in favor of that. We need that. I was
16 speaking just for Rhythms and just to the RT and
17 SAI field locations.
18 MR. MASON: Okay. Anything else
19 before we go off the record? Okay. Thank you.
20 (Workshop ended at 4:23 p.m.)
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25

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