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Please note the following inclusions/attachments to the record:

- PowerPoint Slides (PDF)
- ATIS "Developing a Roadmap for the Migration of Public Safety Applications During the All IP Transition" of September 2015

Please also note: For identification of additional referenced materials and/or links for same, please see Certification correspondence filed by the Office of Regulatory Staff.

P R O C E E D I N G S

1
2 **CHAIRMAN HALL:** Thank you. Be seated. All
3 right. Good afternoon, everyone. We'll call this
4 allowable ex parte briefing to order, and ask Mr.
5 Melcher – Mr. Melchers – to read the Docket.

6 **MR. MELCHERS:** Got mixed up with this morning.

7 [Laughter]

8 Thank you. Madam Chairman, Commissioners, we
9 are here pursuant to a Notice of Request for
10 Allowable Ex Parte Briefing. The party requesting
11 the briefing was Competitive Carriers of the South,
12 Inc., or CompSouth. It's scheduled for today,
13 October 22nd, at 2 p.m., here in the Commission
14 hearing room, and the subject matter to be
15 discussed at this briefing is: Telecommunications
16 Transition.

17 Thank you, Madam Chairman.

18 **CHAIRMAN HALL:** Thank you, Mr. Melchers.

19 Welcome, Mr. Malfara – is that right?

20 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

21 **CHAIRMAN HALL:** Thank you. – and Ms. Ridley.
22 And we are ready, whenever you are.

23 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Thank
24 you.

25 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Thank

1 you, Madam Chair and Commissioners. We really are
2 happy to be here. Again, I'm Carolyn Ridley and
3 I'm president of CompSouth. I'm also the senior
4 director of State Public Policy for Level 3
5 Communications.

6 It really has been too long – you know, maybe
7 if ever – that we actually have a chance to come
8 out here as an association, but we really did want
9 to bring some, what we think are some matters of
10 great import to your attention. We've done this
11 presentation now to a couple of the other state
12 commissions in the Southeast. We've been to
13 Alabama, to Florida, Georgia, Tennessee, and
14 Kentucky. So this same presentation was actually
15 done to their staff, and we are delighted today to
16 actually make some of these points before the
17 Commission. So we really appreciate your time and
18 attention.

19 **CHAIRMAN HALL:** Ms. Ridley, I forgot to
20 mention in our welcome that we have some
21 construction going on upstairs, so if it gets loud
22 just speak closer to the microphone, but – since
23 you're new. Everyone else around here has gotten
24 used to it, so I apologize.

25 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Well,

1 as long as it wasn't an earthquake or something,
2 I'd be like, "What's going on?"

3 **CHAIRMAN HALL:** We'll let you know when to
4 run.

5 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:**
6 Exactly. Thank you. We're just going to do a
7 high-level briefing about CompSouth and who we are,
8 and then Dave Malfara is a consultant that
9 CompSouth has hired, and he's put together a
10 presentation, and we'll get to that in a moment,
11 and then where we still think the State Commissions
12 have a very viable role in the competitive
13 landscape.

14 [Reference: PowerPoint Slide 3]

15 CompSouth has shrunk in its membership
16 primarily due to mergers and acquisitions that are
17 going on in the industry. So, as an example, Level
18 3 bought tw telecom last year. I was with tw
19 telecom for 20 years and now work for Level 3.
20 Birch has bought CBeyond; EarthLink bought
21 Deltacom, I think, and a couple of other ones.
22 Windstream bought NuVox and a couple of other ones,
23 and Global Capacity had bought digitalpath or
24 Megapath, I think it was. And I think X0 is
25 probably due for something. But, suffice to say

1 that, in this industry, mergers and acquisitions
2 are still – I mean, they're really, really
3 prevalent, and probably you're still going to see a
4 lot more of that activity within the environment.

5 So the role – we still believe that the
6 competing local exchange carriers, the CLECs, play
7 a very important role in the marketplace. I think
8 we drive innovation; I think we drive better
9 pricing; I think we drive better customer service.
10 So I think that the members of CompSouth still play
11 a very important role in the industry.

12 One main reason that we wanted to have Dave
13 Malfara come out and talk to you all is that AT&T
14 is espousing that the public switched telephone
15 network will sunset in 2020. We're only – not even
16 five years away from that date whenever that's
17 going to happen, and there's a lot of things that
18 we think the Commissioners need to be concerned
19 about in terms of that transition. So I'm going to
20 ask Dave if he can pick it up from here and give
21 you his presentation.

22 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sure.
23 Thank you, Carolyn.

24 And thank you, again, for allowing us to
25 present this information. We do feel that the

1 information is quite vital and worthy of
2 consideration, because of the way in which it not
3 only affects the operation of communication service
4 providers, as they compete within your State, but
5 also in matters of public safety and consumer
6 choice.

7 [Reference: PowerPoint Slide 5]

8 What I'll be doing today is taking us through
9 AT&T's proposed plan of transition, categorized in
10 three different major areas.

11 [Reference: PowerPoint Slide 6]

12 These major areas include: The end of TDM, or
13 what we'll call the transport technology that AT&T
14 and the industry has used for transmission. We'll
15 take a look at the end of copper as a physical
16 facility used for first-mile customer access to
17 telecommunication carriers, including the incumbent
18 and many competitors. And then the end of circuit
19 switching, which is used to provide voice
20 telecommunication service.

21 [Reference: PowerPoint Slide 7]

22 So first we'll take a look at loss of TDM.
23 And one thing I'll mention in the transition itself
24 is that all of these technologies are
25 interoperable, so the retirement of, for example,

1 copper supplanted by fiber, does not mean that you
2 cannot provide TDM services over than^t fiber. You
3 absolutely can and, in fact, do. And, in fact, TDM
4 is not old. There are brand-new technologies – one
5 specifically called TDM-~~time~~^{PON} that uses time-
6 division multiplexing.

7 What is TDM good for? TDM is an architecture
8 used to support real-time communications. So,
9 video, streaming video, or voice, anything like
10 that, benefits from the ability to synchronize the
11 packet transmission. And that's what TDM does,
12 very simply. It's a synchronization technique. So
13 it's neither old nor new. Now, what happens in the
14 IP transition is that AT&T has chosen to supplant
15 TDM as a transmission technology with IP, and one
16 of the reasons that you would do that is to be able
17 to share a transmission facility among a number of
18 different users. TDM is typically dedicated,
19 point-to-point, one user and one port on a piece of
20 equipment.

21 So, in moving to IP, what's going to happen is
22 that a number of these interfaces that reside at
23 customer sites – PRI, for instance, is an acronym
24 for "primary rate interface," and a number of
25 businesses have these types of interfaces – those

1 need to be changed. They need to be changed to IP
2 interfaces. What that normally means is that the
3 customer's premise_[sic] equipment, either PBX or some
4 sort of equipment that the customer uses within
5 their office location, also needs to be changed,
6 and that adds expense to that business's operation
7 in order to accommodate or acquire, install, and
8 learn how to use new equipment. So if they're not
9 at the end of a refresh cycle and ready to refresh
10 equipment, a move to IP will cost consumers and
11 businesses money.

12 AT&T acknowledges that areas also exist where
13 customers will have no competitive alternative to
14 PRI. So if they eliminate PRI, there won't be
15 another company to provide the competitive service.
16 And in that case, the customer is more or less
17 forced to do a technology upgrade, to install new
18 equipment on the new technology. These customers
19 also have a requirement to look at their redundancy
20 and resiliency that they have built into their
21 existing systems, and determine what they are going
22 to do in terms of accommodating alternatives that
23 happen on the new technology.

24 Now, the important thing with all of this is,
25 this isn't happening on the customer's business

1 cycle. This is happening on AT&T's business cycle,
2 and that really is of concern to us, as well.

3 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** I
4 failed to say, if there are any questions at any
5 time, please feel free to stop either one of us.

6 **MR. DAVID J. MALFARA, SR. [ETC Group]:** And
7 we'll do it, right. Right.

8 [Reference: PowerPoint Slide 8]

9 You know, the other thing, or one thing that
10 doesn't change and has been omitted in discussions
11 that AT&T has had about the transition is how they
12 will accommodate their obligation to provision
13 wholesale end-user access circuits, under both the
14 special-access regime and under the UNE regime.
15 They have a requirement to do that. We have and
16 South Carolina has thousands of DS1 facilities,
17 which are a TDM type of facility used by businesses
18 as methods of access to their competitive provider
19 or to the incumbent. What happens when those
20 services are no longer provided? On face value,
21 the cost of fiber deployment to each and every
22 building that is served right now with the DS1
23 wholesale input, the cost of that deployment is
24 going to be prohibitive to provide an equal service
25 to that customer.

1 So moving on and looking at the end of copper,
2 this actually flies in the face of something that
3 FCC Chairman Wheeler spoke of, and that is that
4 copper remains a very important medium to support
5 broadband deployment across the United States. And
6 why is that? It's because copper is the most
7 ubiquitous transmission medium that we have, and
8 it's used by a number of companies and with
9 emerging standards from the ITU-T for broadband
10 deployment at speeds up to and including one
11 gigabit transmission speed. You can do that now
12 over copper. There have been advancements, and
13 copper really fulfills a position in the market
14 where it is too expensive to deploy fiber to a
15 certain location. You can bond copper pairs
16 together and achieve significant speeds that
17 certainly fulfill the requirements of certain
18 small-to-medium-sized businesses.

19 So a wholesale replacement of copper with
20 fiber, first of all, isn't going to happen because
21 it's too expensive. So in those areas where it is
22 too expensive, we are very interested to see what
23 AT&T recommends or suggests that they're going to
24 use to those places. If the answer there is fixed
25 wireless, we need to talk, as well, because fixed

1 wireless is not a direct replacement for copper.
2 Spectrum is shared in those locations – or, in
3 those conditions, and becomes problematic to
4 service a number of customers that would be in an
5 area with licensed spectrum that is shared by a
6 number of entities, not only in that area but
7 elsewhere.

8 Now in saying that copper is great and
9 supports significant broadband transmission speeds,
10 ultimately competitive carriers will need access to
11 fiber and access to services that are built on
12 fiber, and AT&T has suggested that they're ready to
13 provide that. They have suggested that at the FCC
14 and in different discussions about their transition
15 plan, and they would do that under special access.
16 We have yet to understand what they'll do in the
17 UNE environment, but for special access, they plan
18 to do that.

19 Now, of course, they're faced with the same
20 physical deployment cost problems that they've got,
21 if they're going to completely eliminate copper,
22 but insofar as the fact that fiber is available and
23 is the only medium available, you want to make sure
24 that they don't retire competition when they retire
25 the copper. So yes, we do need the access to

1 special-access services and, frankly, UNEs over
2 fiber, and we've yet to see any plan under which
3 they would provide that.

4 [Reference: PowerPoint Slide 11]

5 Moving on to one of the single most important
6 areas for copper retirement is the issue of
7 providing customers with sustainable communication
8 capability in the event of a natural disaster or
9 other sort of disaster. I don't have to tell you
10 about the effect of weather disasters on consumers
11 and the maintained requirement for communication
12 services. And, certainly, battery backup is
13 significant. There are areas where, you know, the
14 FCC now has mandated a requirement for eight-hour
15 battery backup, and there are certainly areas
16 within carrier services and first-mile access
17 facilities where that is not the case.

18 So we believe that oversight of that process,
19 of moving to battery backup, that it is consistent
20 with national standards, is a granular issue that
21 is appropriately placed within the domain of the
22 states. We also believe that there are problems
23 with the fact that an entire community may lose
24 communications capability after eight hours of a
25 disaster, so right in the middle of recovery

1 processes or trying to deal with the disaster
2 itself, whole sections of locations that are served
3 only with fiber and eight hours of battery backup
4 are going to lose communication capability. So
5 that, again, is another issue. The FCC has
6 suggested that in three years they're going to go
7 to a 24-hour requirement, and that's something, as
8 well, to keep in mind, that is of issue.

9 **CHAIRMAN HALL:** Mr. Malfara, we have one
10 question.

11 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

12 **MR. MELCHERS:** How does that differ from what
13 the same experience would be with copper? I'm
14 missing the eight-hour –

15 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Oh,
16 I'm sorry. Yes. Okay. With copper, there is no
17 problem with battery backup, because a telephone
18 line is provided with power from the central office
19 itself, and the central office supplying that power
20 has not only battery backup systems but generator
21 systems that take over and continue to replenish
22 the battery systems, okay? So the issue is, when
23 you have an optical network terminal – an ONT – at
24 the customer location, and you're talking about
25 having to keep all of those up and running, and

1 think in terms of GETS, you know, Government
2 Emergency Telecommunications Systems, with
3 participants and first responders and things of
4 that sort, not just the general public but people
5 who have responsibilities within the realm of this.
6 Think of fire stations, police stations, things of
7 that sort. To the extent that eight hours after a
8 disaster hits they've lost power, that's a huge
9 issue, and one that many of them are not equipped
10 and capable of dealing with at this point in time.

11 So, you know, should we move to fiber? Of
12 course we should move to fiber. No competitive
13 carrier is against advancement of technology. But
14 when you do advance in technology, you need to make
15 sure that you've not violated the tenets of
16 communication services that Chairman Wheeler has,
17 you know, espoused a number of years now. And one
18 of them is, you know, compromising the public trust
19 as it pertains to public safety. And I think
20 that's a very big issue, as well.

21 [Reference: PowerPoint Slide 12]

22 So, finally, as we move forward, we're talking
23 about moving to packet switching and Voice-over-IP,
24 and retiring circuit switching. And that's fine.
25 As a matter of fact, most competitors use Voice-

1 over-IP systems right now to provide service. It's
2 not moving to the technology; it's the operational
3 tenets that you bring with you as you move to that
4 new technology that are required.

5 And, again, we would submit that, if AT&T
6 moves to Voice-over-IP, it does not relieve their
7 responsibility to have interoperability – in other
8 words, the ability to have a phone call – between
9 subscribers of a competitive carrier and AT&T. And
10 right now, in an IP environment, that can't happen.
11 AT&T has successfully avoided IP interconnection
12 for greater than a decade. I've testified in front
13 of the Massachusetts DTC, you know, the DC Public
14 Service Commission, in a number of different areas,
15 trying to compel incumbent local exchange carriers
16 to interconnect with us on an IP basis, so that we
17 can provide consumers not only, you know, next-
18 generation communication capability in terms of
19 voice, but also multimedia. Why is this important?
20 It's important for public safety, again.

21 If we talk about next-generation 911 as it's
22 defined by NENA in the i3 framework that they've
23 built, they expect customers to be able to
24 communicate with PSAPS not only with voice, but
25 also with real-time text, with imaging, and with

1 video. The only way that occurs when that
2 subscriber is a customer of a competitive local
3 exchange carrier, is if we have IP interconnection
4 over which to transmit that information.

5 So that's a great big issue. We don't have it
6 right now, okay?

7 [Reference: PowerPoint Slide 13]

8 When we talk, also, about changes in circuit
9 switching, it's very popular for incumbent local
10 exchange carriers – and I submit that AT&T is one –
11 to say that the selective router that customers
12 interconnect to, to be able to pass calls to a
13 PSAP, does not change; that is the same system that
14 is being used right now by TDM customers. And
15 while Voice-over-IP customers do use that system,
16 if you're talking about AT&T U-verse, the systems
17 that they must go through in order to get to that
18 selective router are quite different. They need to
19 go through, for example, a session border
20 controller, a soft switch, a media gateway. Those
21 are all devices that are absent from a call from a
22 conventional subscriber to a 911 PSAP.

23 So, in my opinion, the Commission needs to be
24 aware of those differences and have assurances from
25 the incumbent local exchange carrier that the

1 resiliency of the systems used to connect to that
2 selective router from the subscriber are of equal
3 caliber to what currently exists.

4 In addition to that, the location of the call
5 agent and some of this equipment necessary to
6 interconnect to the emergency response system
7 within South Carolina may be located in other
8 states. And whether or not it is is something that
9 is not known right now, okay? I'm involved as a
10 subject-matter expert in a case in the District of
11 Columbia, where it was only under confidentiality
12 that where the systems were was disclosed. And, of
13 course, I can't disclose that. But, you know, it's
14 something that I believe states should keep in mind
15 because of the fact that it's important to your
16 public safety.

17 Now, with that – I'm sorry I took so long – I
18 will turn it over to Carolyn, who will talk more
19 about state involvement issues. Thank you.

20 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Are
21 there any questions ~~four~~^{for} Dave before I sort of try
22 and focus us from the educational type of
23 presentation and awareness? I think it's really
24 important that commissioners are aware of what are
25 some of the underlying potential issues in the IP

correction per errata sheet

1 transition, and then I'll take it down to more of
2 the state involvement.

3 **CHAIRMAN HALL:** Commissioner Elam has a
4 question. He's our telecom guy.

5 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Okay.

6 **COMMISSIONER ELAM:** As far as IP
7 interconnection, I heard you say you have no access
8 to it at all? Or was it just not in the format
9 that you want?

10 **MR. DAVID J. MALFARA, SR. [ETC Group]:** We
11 have zero access to IP interconnection right now.

12 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** The
13 way that – I'll just expand on that. The way that
14 carriers are now – most carriers, including Level
15 3, but most of the carriers in CompSouth – we
16 already – our networks already are a managed packet
17 network, and we have to – we originate the call in
18 IP format, have to convert it back to TDM, to time-
19 division multiplexing, and then exchange the
20 information and exchange that traffic with AT&T in
21 TDM. Then it gets converted back, or else it's
22 delivered as TDM on the other side. So that's very
23 inefficient. It's very cost-ineffective to do it
24 that way.

25 So we do not have any IP-to-IP for the

1 exchange of voice traffic with AT&T. All of our
2 interconnection agreements that all of the CLECs
3 have right now are for TDM interconnection. They
4 are all in evergreen status. There's been some
5 approach by some of the ILECs to say, "Look, well,
6 if you want an interconnection agreement for IP, it
7 has to be done in a commercial agreement and not
8 underneath Section 251/252 of the
9 Telecommunications Act. The competing carriers
10 say, "Wait a second, we're just – we're changing
11 technology; we're not changing regulatory
12 obligation." The single most important thing to be
13 able to provision services as a CLEC is to be able
14 to interconnect our network, because, you know, my
15 customer base is a small customer base relative to
16 an AT&T or a Verizon, and if my customers want to
17 talk to their customers, I have to have my network
18 interconnected with them or the call won't go
19 through. So, literally, the single most important
20 thing is interconnection.

21 The FCC has not taken away your authority over
22 IP interconnection. The legislature has not taken
23 away your authority over interconnection. Every
24 state commission still has the authority over the
25 interconnection for voice traffic. Nothing

1 changed, at all, but the underlying technology in
2 terms of being able to connect networks. So that
3 was actually a good segue, because that was going
4 back to my state involvement was from a policy
5 perspective, that is the single most important
6 thing –

7 [Reference: PowerPoint Slide 14]

8 – and I don't know if we answered your
9 question.

10 **COMMISSIONER ELAM:** Well, yeah – the FCC has
11 not determined whether or not IP interconnection is
12 an unbundled network element?

13 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Well,
14 actually, unbundled network elements are part of
15 the interconnection umbrella. So, they have not
16 been – the FCC is actually moving forward in their
17 technology transition docket, and they've ruled on
18 some things: The battery backup; they've ruled on
19 some of the wholesale requirements. They have not
20 ruled on unbundled network elements, in terms of
21 the regulatory obligation, but maybe because they
22 feel like they don't have to, because nothing has
23 changed.

24 **COMMISSIONER ELAM:** Right.

25 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** You

1 know, nothing really has changed in that. That
2 really could be ruled by a state commission. It's
3 still interconnection. It's still – the technology
4 has changed, but the obligation of unbundled
5 network elements, nothing of that is changed. So
6 we still believe – the CLECs still strongly believe
7 – that the state commissions have that authority
8 today.

9 And even – another very important part of the
10 whole interconnection is that if – a lot of
11 carriers, instead of trying to negotiate an
12 interconnection agreement with the incumbent local
13 exchange carrier, AT&T predominately in South
14 Carolina, they will look to see what other CLECs
15 have negotiated and opt in. That's a very easy way
16 to get into business quickly, to not wrangle over
17 all the issues. If another carrier has gone
18 through arbitration, they don't have the litigation
19 expense of going through arbitration, so they opt
20 into networks – opt into interconnection
21 agreements. Sorry.

22 In the case of IP interconnections, we know
23 that Verizon, for example, has several commercial
24 agreements with other carriers. They maintain
25 that, because it's IP interconnection for the

1 exchange of voice traffic, that's not subject to
2 251/252. We think that state commissions should
3 mandate that all carriers file any kind of
4 interconnection agreement for the exchange of voice
5 traffic – and they could do it under seal if they
6 wanted, if that's what you all would want. It's
7 the commission that should determine whether or not
8 it's subject to 251/252, not the carriers. And if
9 you all determine that those interconnection
10 agreements are, in fact, subject to 251/252, they
11 should be filed publicly, then, so other carriers
12 can opt into that. That was part of the
13 Telecommunications Law, and it still stands.
14 Nothing has changed that. There's been no FCC
15 order or no legislative change at the federal or
16 the state level that has changed any of those
17 regulatory obligations, and they are absolutely
18 essential to competition.

19 **COMMISSIONER ELAM:** Okay, last thing. Has any
20 other state ruled that IP interconnection is
21 subject to 251/252?

22 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:**
23 Michigan – well, go ahead.

24 **MR. DAVID J. MALFARA, SR. [ETC Group]:** I was
25 going to say that Michigan certainly has exerted,

1 you know, an authoritative control over negotiation
2 of 251/252 agreements, including IP. I don't know
3 the particulars about the Michigan order, itself,
4 so I hesitate to go past that. And the –

5 **COMMISSIONER ELAM:** Is that order on appeal?

6 **MR. DAVID J. MALFARA, SR. [ETC Group]:** –
7 issue is – pardon me?

8 **COMMISSIONER ELAM:** Is that order under
9 appeal?

10 **MR. DAVID J. MALFARA, SR. [ETC Group]:** It may
11 be. It may be. And I know Massachusetts has the
12 issue before it, as well, because I participated in
13 that case.

14 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** As
15 does Kentucky, as does California, as has Illinois.
16 I think that the states – right now, everyone is
17 dancing around this. And I think that, to be
18 really honest with you, CLECs are afraid to go up
19 and say, "Do you have authority?" I mean, you
20 know, it would be great if the state commission
21 asserted jurisdiction over this, so it's clear.
22 Otherwise, it would come before you and you say,
23 "No, I don't have jurisdiction over this," then I'm
24 not sure – I'm not sure where we'd go, to the court
25 or to the FCC? There's this big question mark

1 that's kind of hanging over top of this.

2 **MR. DAVID J. MALFARA, SR. [ETC Group]:** One of
3 the issues with regard to that subject,
4 specifically, is, you know, the difference between
5 having authority over a retail service – VoIP –
6 provided to consumers, and your continuing
7 authority over the interconnection of networks that
8 actually provide those services. And we believe
9 they are separate and distinct. We believe that,
10 you know, there's federal obligations or federal
11 requirements with regard to the responsibilities of
12 orchestrating those agreements that fall directly
13 with the state, that really have nothing to do with
14 what's offered on the retail side of things where
15 there might be a legislative restriction over
16 oversight of those services.

17 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** And
18 that's actually a really good point, that a lot of
19 – in a lot of the Southeast states, in particular,
20 there's been retail deregulation, but that did not
21 affect your wholesale authority, and that is
22 included in South Carolina. So you still do have
23 the authority pursuant to federal and state law
24 over wholesale issues, including interconnection.

25 So I would – really, that's my one policy

1 pitch is this point, exactly. It's my first bullet
2 point there, is that you continue to have that
3 authority.

4 The other two points on this slide – and
5 really, the real point about bringing this whole
6 presentation to the Commission – is to say that
7 there are technical and operational issues that
8 really do need to be addressed, in order for the
9 whole industry to move all of their networks to IP,
10 or to a managed packet environment. It needs to –
11 you know, not only do we have to address
12 interconnection, not from a policy perspective but
13 the physical interconnection of our networks on an
14 IP basis; we have to address all of the back-office
15 stuff, all the wholesale ordering, the
16 provisioning, the maintenance. There's a lot of
17 different things, because the technology is
18 changing, and that does change the physical
19 components in our network and it changes physically
20 how we have to – what is going to be available in
21 the systems to be ordered and maintained.

22 So we do need to have some type of orderly
23 transition to IP, and we really do think that
24 that's still where states can play a role.
25 Specifically, whether that's in an industry

1 transition group – and there's one that I mentioned
2 here, the Alliance for Telecommunications Industry
3 Solutions. They came out with a paper in September
4 of 2015, and I brought copies of those papers with
5 me.

6 [Reference: ATIS 9/2015 Attachment]

7 But just to show you that there are groups
8 that are out there that are trying to peel the
9 onion back. They're trying to say, like, "How is
10 this going to impact consumers? How is it going to
11 impact public safety? How is it going to impact
12 competition?" And there are lots of technical and
13 operational questions that need to be addressed.

14 For example, in Dave's presentation he says
15 that, in South Carolina alone, there's 127 TDM
16 switches, the circuit switches. All those switches
17 have to be cut over to an IP environment, either to
18 the IP switch or to these other interconnection
19 points. Those are physical things that have to
20 happen. Customers and competitors hang off of
21 those switches. And it's a lot that's involved in
22 cutting over a switch. Well, if you can see there
23 are 127 in South Carolina alone, multiply that by
24 all the states. All of that still has to take
25 place before this presumed sunseting of the public

1 switched telephone network in 2020.

2 So it gives me pause. I hope, if nothing
3 else, it gives you pause, just to sort of say,
4 like, "You know, the next time I'm talking to AT&T,
5 maybe I need to ask them a question or two. Maybe
6 we need to get everybody together in here and have
7 a workshop, or maybe we need to start asking some
8 tough questions to say, 'How's this going to impact
9 the people in South Carolina? How is it going to
10 impact the businesses? How's it going to impact
11 competition?'"

12 So that's actually everything that I had, that
13 I wanted to share with you all today, and, again,
14 we're happy to answer questions, and we're happy to
15 give you all questions to pose to AT&T.

16 So, any questions for me? But otherwise, I
17 appreciate your time.

18 **CHAIRMAN HALL:** Okay. Commissioner Fleming.

19 **COMMISSIONER FLEMING:** Yes.

20 First of all, thank you for bringing this
21 before us. We really have not dealt much with
22 telecom in several years, so this is very
23 informative for those of us who aren't on the
24 national Telecom Committee. Several times, you've
25 talked about the customer and what it could do to

1 the customer, but you mentioned taking the customer
2 backwards, even. Could you go into a little bit
3 more detail about –

4 **MR. DAVID J. MALFARA, SR. [ETC Group]:** I
5 would love to, yes.

6 [Laughter]

7 **COMMISSIONER FLEMING:** – why – how it will be
8 taking the customer backwards?

9 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sure.
10 Let's take the example, as we said – well, first of
11 all, Carolyn mentioned an area that I was remiss
12 with, with my presentation, and that really is the
13 fact of the 127 switches that AT&T owns within the
14 State of South Carolina. Well, think of all of
15 those customers having to make this transition.
16 Well, from a small-to-medium-sized-business
17 perspective, if that customer currently is served
18 with a DS1 service right now, and they're operating
19 – a DS1, by the way, just to go down into the weeds
20 a little bit, it's 1.544 megabits per second.
21 That's the speed of a DS1. So not very quick by
22 today's standards, but sufficient for their modest
23 requirements. Maybe they have two, okay? Well,
24 for AT&T to remove copper and put fiber in an area,
25 they are going to have to run a fiber lateral to

1 that customer location, and it's going to have to
2 be lit and it's going to have to be functional,
3 okay? Now, prior to that happening, the carrier,
4 the competitive carrier who serves that customer
5 with that wholesale input, is going to have to be
6 notified by AT&T of what the particular technology
7 is that they are going to serve that area with, to
8 supplant the TDM and copper, and they're going to –
9 the CLEC, then, will have to go out and assess,
10 evaluate equipment that is congruent with that
11 technology; they're going to have to acquire that
12 equipment, test that equipment within its own
13 network, and have it ready for deployment.

14 Once AT&T has that functional replacement
15 service available within the building of that
16 customer, the competitor is going to have to
17 configure one of those boxes with the exact
18 configuration that the customer currently has on
19 their existing service, into the customer premise_[sic]
20 equipment, the new CPE. Then they have to take
21 that CPE out there, interconnect it to that new
22 functioning service, and then, one by one, transfer
23 all of the services that the customer is using –
24 probably voice, managed network services, maybe
25 private WAN services, LAN services, things of that

1 sort – on a singular basis from the old to the new,
2 okay? Then they're going to have to let the
3 customer have maybe a 90-day period where the
4 customer can make the panic call – "Hey, throw it
5 back to the old system. Something isn't working,"
6 okay? So it's a very complex process.

7 We're talking about tens of thousands of
8 customers served by 127 different switches. Now,
9 that's assuming AT&T – long way to answer your
10 question – that's the way AT&T will operate when
11 conditions are good. Okay? When conditions are
12 not good for deploying that fiber to that location
13 – say it's a doc-in-the-box somewhere and that's
14 all that's there is a single physician doing
15 diagnostic work on an outpatient basis, okay? If
16 that's not there, if the demand is not there for
17 fiber – meaning that that guy is not going to
18 produce thousands of dollars' worth of need every
19 month, but simply a few hundred dollars of need – I
20 don't believe that, first of all, he'll make the
21 Top 10 list as far as getting fiber deployment.
22 And then, once AT&T does have fiber in that area,
23 even if they will serve that customer, I don't know
24 how long it will be until that specific premise_[sic]
25 is served with fiber by AT&T.

1 So in the interim, what happens? Okay? If
2 the copper is retired, if TDM is retired on a date-
3 certain basis, but the customer has no physical
4 transmission medium at its building in order to
5 transition to, then what happens? AT&T has not
6 answered that question. Okay? And that's what I
7 mean by taking a step backward. They could go from
8 having fully functional service available on
9 copper, through the competitor, to a scenario where
10 that is retired and there is no alternative.

11 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** And
12 short answer, fax machines might not work, phones
13 in elevators might not work. It simply might not
14 work – unless they're totally rewired and IP
15 equipment is put into those areas, they just won't
16 work.

17 Also, in order to make them work, they might
18 have to spend 10 times what they're paying to get
19 that service to work. So that's another step back,
20 is just purely, right now, the financial
21 implications that we are seeing, is that a \$126
22 circuit is now going to cost \$1260, so that's a
23 huge step back for customers.

24 **MR. DAVID J. MALFARA, SR. [ETC Group]:** And,
25 of course, those are published figures, as far as

1 price is concerned.

2 **COMMISSIONER FLEMING:** So it would be the
3 customer or it would be the carrier that would have
4 to –

5 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Both.
6 In both cases. You know, if the customer is buying
7 the service directly from AT&T, it's a direct
8 potential increase in cost for them on their
9 service. We were really talking about from the
10 perspective of a carrier buying a circuit and,
11 then, in turn, supplementing – I don't know why I'm
12 having trouble with that word – supplementing our
13 own network with facilities we would buy from AT&T,
14 we potentially will see a huge increase in price,
15 unless that is addressed at the FCC.

16 **COMMISSIONER FLEMING:** Now let me ask you
17 this. There's got to be advantages to this.

18 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:**
19 Absolutely. And we love it. Here the irony is –
20 and I'm glad that you actually just said that,
21 Commissioner, because it's the CLECs that are
22 embracing the move to IP. It's absolutely much
23 more cost-effective and we'd like – and, you know,
24 the customers that we have, we want to bring all of
25 the benefits of the new technology to them. But

1 what we're cautioning is that it's really not the
2 CLECs who are causing the delay; it's AT&T – it's
3 the ILECs that are causing the delay, in that
4 they're causing the delay in terms of not saying
5 that we can have – clearly saying, "Absolutely
6 Section 251/252 applies to IP interconnection."
7 That's the single most thing. Second thing, not
8 filing their agreements that they have so that we
9 can opt in, instead of having to negotiate if we
10 want to go that path. Thirdly, not providing
11 wholesale replacements to the TDM products on an IP
12 basis.

13 So, until we have those three things, that's
14 the deterrent. But there are absolutely phenomenal
15 benefits to moving to a total IP network.

16 **COMMISSIONER FLEMING:** And so you are saying, to
17 get to that point, there have to be negotiations –

18 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:**
19 Exactly.

20 **COMMISSIONER FLEMING:** – both on the state and
21 federal level.

22 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** There
23 has to be negotiations for – you know, for our
24 networks to be able to talk to each other, and
25 there have to be questions answered about

1 technically and operationally how are we going to
2 do this. They've kind of gone radio silent. They
3 kind of said, "We're going to do our trials in
4 Alabama and Florida." We never hear anything about
5 the trials in Alabama and Florida. How are those
6 going? That could be Question No. 1.

7 But really and truly, to say, "Of these 127
8 switches that you have in South Carolina, what's
9 the plan? Show me the plan about how – when and
10 how – you're planning on cutting these switches
11 over in South Carolina to move to an IP world or
12 environment," those are basic questions that have
13 huge, huge implications.

14 **MR. DAVID J. MALFARA, SR. [ETC Group]:** If I
15 might, when AT&T filed its proposal for wire center
16 trials with the FCC, it stated that: AT&T also is
17 working diligently to develop IP replacement
18 services that it will make available as soon as
19 possible, although it is likely that the final
20 commercial products will not be available until the
21 trials are already underway. That was filed with
22 the FCC on February 27, 2014. So if we're working
23 diligently to come up with a design for replacement
24 services, they've had almost 2 years to do that,
25 right now. And I could go into the fact that, you

1 know, they're espousing the use of software-defined
2 networking and network functions' virtualization
3 right now, which they say is allowing them to move
4 to provisioning timelines that are measured in
5 minutes rather than months. So where is that same
6 sort of development^{al} structure as it pertains to
7 replacement services using new technologies that
8 will be provided as wholesale inputs to
9 competitors?

10 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** I
11 feel like I have to be his translator sometimes.

12 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sorry.
13 I'm sorry.

14 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** That
15 just means there's a lot of benefits out there,
16 once it gets going.

17 [Laughter]

18 **CHAIRMAN HALL:** Commissioner Hamilton.

19 **COMMISSIONER HAMILTON:** All right. Mr.
20 Malfara, when you talk about the switches and the
21 priority, and the low priority, I think that's
22 where I live. Technology's been slow to come to
23 where I am.

24 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

25 **COMMISSIONER HAMILTON:** And I probably need

1 some of those questions that you were talking about
2 that you had, that we need to ask.

3 **MR. DAVID J. MALFARA, SR. [ETC Group]:**
4 Absolutely.

5 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** I'll
6 make sure that those are filed with you all.

7 **COMMISSIONER HAMILTON:** I'd appreciate that.

8 **MR. DAVID J. MALFARA, SR. [ETC Group]:**
9 Certainly.

10 **COMMISSIONER HAMILTON:** We appreciate your
11 time here today, too.

12 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Thank
13 you.

14 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Thank
15 you, very much.

16 **CHAIRMAN HALL:** Okay. Commissioner Whitfield.

17 **VICE CHAIRMAN WHITFIELD:** Thank you, Madam
18 Chairman.

19 Mr. Malfara, I've got one quick question for
20 you. I think the first question that was asked of
21 both of you was by our attorney, Mr. Melchers, and
22 he asked a question about fiber requiring battery
23 backup.

24 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

25 **VICE CHAIRMAN WHITFIELD:** And I think you went

1 on to explain that was because the fiber – well,
2 this transition to IP, that you don't have the CO,
3 the central offices, and you don't have the
4 switches and, obviously, it operates differently.
5 But then one of you – might have been you, Ms.
6 Ridley. One of you went on to say that the FCC had
7 – you said a lot of things that the FCC has not
8 ruled on, but one of you went on to say the FCC had
9 ruled on battery backup.

10 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

11 **VICE CHAIRMAN WHITFIELD:** And that's – can you
12 expand on that or tell me what their ruling was on
13 that?

14 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Go
15 ahead.

16 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sure.
17 The ruling was that, immediately – and this came
18 out in the Tech Transitions Order?

19 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:**
20 [Nodding head.]

21 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yeah.
22 What they ruled on immediately was that all
23 providers will, within a length of time that
24 escapes me – but it's immediate – will provide
25 eight hours of battery backup on all systems that

1 serve customer premise_[sic] with fiber, and, further,
2 that within three years, that number will be 24
3 hours, not eight hours. Okay? So, you know, the
4 issue is the FCC has certainly recognized the fact
5 that, when you talk about – when you talk about
6 battery backup for a single customer premise_[sic],
7 that's one thing – okay? – but if you talk about a
8 disaster where –

9 **VICE CHAIRMAN WHITFIELD:** That's where I'm
10 going, for an emergency. That's where I was going.

11 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Great.

12 **VICE CHAIRMAN WHITFIELD:** Go ahead.

13 **MR. DAVID J. MALFARA, SR. [ETC Group]:** So
14 when you're talking about an area where, all of a
15 sudden, you're reaching the eight-hour timeframe,
16 and you know that everyone in that community that's
17 served by fiber – arguably, because all of the
18 copper is gone – they are going to lose
19 communication capability, and there is nothing they
20 can do about it. You know, that's a huge Homeland
21 Security issue, I believe.

22 **VICE CHAIRMAN WHITFIELD:** And the FCC, did
23 they have any language in that ruling about that,
24 or – I know you say eight hours, but –

25 **MR. DAVID J. MALFARA, SR. [ETC Group]:** No,

1 they have not yet. To my knowledge, they've
2 recognized the issue. They understand that it's
3 problematic. But they, in my opinion – and this is
4 not CompSouth; this is simply my opinion – I
5 believe that the FCC and, frankly, other entities
6 interested in public safety – and I would certainly
7 believe that the state commission is in that domain
8 – should take a look at the advancements in
9 technology, in battery technology, that has allowed
10 you to do a number of things that could not be done
11 even three years ago.

12 I have a buddy who I believe has testified in
13 front of this Commission, by the name of Joe
14 Gillan. Joe is an economist. Joe also rides
15 motorcycles, and he just got a new battery for his
16 Harley, and he can't imagine how they can make this
17 battery so light – it's a newer style battery, new
18 technology – and it provides equal and better
19 performance than his old one.

20 Well, advancements like that are taking place
21 also in the realm of ONT – optical network terminal
22 – battery backup systems. In addition to that,
23 ONTs are getting better. ONTs used to be boxes,
24 you know, this big [indicating] that hung on the
25 outside of your home. They are now reduced in size

1 to about that size [indicating], about three and a
2 half inches square, maybe an inch and a half tall,
3 that can sit on your desk or sit on a shelf
4 somewhere within your home. So the demand of that
5 box for power is significantly less than the ONTs
6 of the past.

7 So we tend to think about battery backup
8 systems in terms of lowest common denominator, you
9 know, looking at the highest-demand devices and the
10 battery systems that are maybe a couple of
11 generations old. And I think it's more important
12 right now for state commissions and for the FCC,
13 itself, to take a realistic look at what's
14 available today and to build requirements based on
15 what's achievable today, and give the public that
16 benefit.

17 **VICE CHAIRMAN WHITFIELD:** Well, thank you.
18 You had even referenced the 911 dialing, I think,
19 in your slides, so –

20 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes.

21 **VICE CHAIRMAN WHITFIELD:** – thank you.

22 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yes,
23 thank you.

24 **CHAIRMAN HALL:** All right. Commissioner Elam.

25 **COMMISSIONER ELAM:** If you would clarify, when

1 you're talking about a customer served by fiber,
2 are you talking about fiber all the way to the
3 premises or just somewhere in the loop? Because,
4 you know, I'm an AT&T U-verse customer –

5 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sure.

6 **COMMISSIONER ELAM:** – but I don't have fiber
7 to my house.

8 **MR. DAVID J. MALFARA, SR. [ETC Group]:** No,
9 you have copper. Yeah.

10 **COMMISSIONER ELAM:** Yeah. And the fiber just
11 has to be, like, within a mile?

12 **MR. DAVID J. MALFARA, SR. [ETC Group]:**
13 Commissioner, could I ask you one thing, though?

14 **COMMISSIONER ELAM:** Sure.

15 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Okay?
16 If AT&T is believing so much in copper to your
17 home, why do they want to retire it? If they admit
18 that they can provide you broadband service –
19 right? – over that copper, is copper not useful?
20 Of course it is.

21 No, what I was referring to, basically, is
22 fiber directly to your home or, in your case,
23 copper terminating to an active device that needs
24 to perform a modulation scheme to allow it to
25 support broadband – and yours does. Yours has an

1 active box; it's a DSL modem that actually supports
2 U-verse service. So for that also, yeah.

3 **COMMISSIONER ELAM:** Okay. And, last one, a
4 lot of the time when you were talking about
5 customers during this, you were talking about, you
6 know, multiline business customers.

7 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Yeah,
8 as opposed to consumers.

9 **COMMISSIONER ELAM:** Right.

10 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sorry.

11 **COMMISSIONER ELAM:** Can you talk a little bit
12 about what you think the impacts of this are for
13 individual residential consumers?

14 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Sure.
15 For residential customers, the loss of a copper
16 line as a communication service can cause a number
17 of different problems. AT&T is very – has, on many
18 occasions, stated that "Fax works on our service.
19 So does modem service." And these are devices that
20 are older in technology, but still in use – still
21 in wide use. As a matter of fact, modems are used
22 very much in medical monitoring equipment. You
23 know, the base station for a Holter monitor for a
24 patient may use a modem to periodically dial in to
25 a collection device that will accept data from that

1 Holter monitor.

2 AT&T is right: They do work, so long as both
3 sides of that connection are on AT&T's network.

4 Okay? The problem comes in when we [indicating]
5 have to do an IP-to-TDM conversion, okay, or – and
6 this would be to support you, to support your
7 U-verse voice service – in order to contact the
8 healthcare facility who is our customer and is
9 served by IP. Okay? So your device is making a
10 call and, rather than going via IP directly to the
11 healthcare facility on AT&T's network, it's going
12 now to a hospital that is served by us as a
13 competitor, and it's got to go through a media
14 gateway and a transcoding ^{with} ~~of~~ what are called codecs
15 – coders, decoders. The problem is, codecs are
16 lossful devices: They distort signals. Okay?

17 So every time you go through a transcoding
18 like that, you are degrading the signal. So to the
19 extent we are forced to go through these services,
20 the modem connection may not work, the fax
21 connection may not work, while AT&T – with, you
22 know, passing the red-face test – can say to you,
23 "Yes, the fax and modem work on our network." And
24 that's the key: "on our network."

25 **COMMISSIONER ELAM:** Okay. Thank you.

correction per errata sheet

1 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** And
2 just to add one tiny point on that, those 127
3 switches in South Carolina, they serve residential
4 as well as business customers. So when they're
5 doing the cutovers at some point in time, I mean,
6 there may be some type of an issue that they need
7 to address from a technical or operational
8 standpoint. It is – the greater impact is when
9 there's another carrier involved versus totally on
10 their network, but there's still degradation in the
11 quality, as Dave was pointing out.

12 **MR. DAVID J. MALFARA, SR. [ETC Group]:** One
13 other thing I might point out is the operational
14 support system and business support system
15 transactions that are needed to effect this
16 complete transition. You know, if we're talking
17 about transitioning all of the products and
18 services that are out there, being used by AT&T's
19 wholesale and retail customers, by 2020, imagine
20 the number of orders that includes. Okay? And
21 going through that order process – look, I once ran
22 a company that used UNE-P – we remember that, back
23 when? – and we provided that service across the
24 country. As a matter of fact, very successful
25 company. I generated 22,000 orders a month, and I

1 broke Verizon's system. I just broke it. So if we
2 talk about trying to handle that volume of orders
3 between now and 2020, I think we have a problem
4 there.

5 **CHAIRMAN HALL:** Okay. Thank you. Are there
6 any more questions?

7 [No response]

8 Okay. Ms. Ridley, Mr. Malfara, thank you so
9 much for bringing your perspective to our
10 Commission on our jurisdiction and on this issue.

11 And we are now adjourned.

12 **MS. CAROLYN RIDLEY [CompSouth/Level 3]:** Thank
13 you all, very much.

14 **MR. DAVID J. MALFARA, SR. [ETC Group]:** Thank
15 you.

16 [WHEREUPON, at 3:00 p.m., the hearing in
17 the above-entitled matter was adjourned.]

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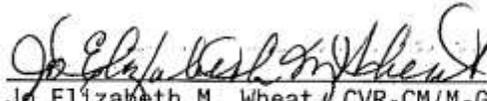
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C E R T I F I C A T E

I, Jo Elizabeth M. Wheat, CVR-CM-GNSC, do hereby certify that the foregoing is, to the best of my skill and ability, a true and correct transcript of all the proceedings had in an Allowable Ex Parte Proceeding held before THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA in Columbia, South Carolina, according to my verbatim record of same.

IN WITNESS WHEREOF, I have hereunto set my hand, on this the 25th day of October, 2015.


Jo Elizabeth M. Wheat, CVR-CM/M-GNSC
Hearings Reporter, PSC/SC
My Commission Expires: January 27, 2021.