1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION 2 3 4 In the Matter of UNDOCKETED : 5 : Status of operational 6 support systems. 7 **VOLUME 2** 8 Pages 212 through 366 9 10 PROCEEDINGS: WORKSHOP 11 **BEFORE:** 12 CHAIRMAN JOE GARCIA COMMISSIONER J. TERRY DEASON 13 COMMISSIONER SUSAN F. CLARK COMMISSIONER JULIA L. JOHNSON 14 COMMISSIONER E. LEON JACOBS, JR. 15 DATE: Wednesday, May 6, 1999 TIME: 16 Commenced at 9:30 a.m. 17 PLACE: Betty Easley Conference Center Room 148 18 4075 Esplanade Way Tallahassee, Florida 19 20 REPORTED BY: H. RUTHE POTAMI, CSR, RPR KIMBERLY K. BERENS, CSR, RPR 21 FPSC Commission Reporters 22 IN ATTENDANCE: DOCUMENT NUMBER - DATE 55 23 (As heretofore noted.) 24 25 35 0

1	i			INDEX		
2				MISCELLANEOUS		
3	ITEM				PAGE	NO.
4						
5	PRESENTATION AT&T	BY	MR.	BRADBURY	214	
6	PRESENTATION	BY	MR.	GREEN	320	
7	MCI WorldCom					
8						
9						
10						
11						
12	4					
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
	11					

1	PROCEEDINGS
2	(Workshop reconvened at 9:30 a.m.)
3	COMMISSIONER DEASON: The Chairman has asked
4	that we go ahead and get started this morning.
5	Ms. Keating?
6	MS. KEATING: Our first presenter this
7	morning is Jay Bradbury on behalf of AT&T.
8	MR. BRADBURY: Good morning, Commissioners.
9	Thank you for this opportunity to talk to you this
10	morning about the status of OSS implementation.
11	My presentation this morning will be broken
12	into about eight parts. We'll spend some time
13	initially talking about OSSs in general, their
14	definition, and their role. We'll talk about AT&T's
15	interface use over the years and our internal
16	developments, and then we'll talk about the five
17	business functions that OSS supports; preordering,
18	ordering, flow-through provisioning, maintenance and
19	repair. Obviously flow-through is not a business
20	function, but it describes what happens in ordering.
21	One of the things we need to be very careful
22	about is to understand the full scope of OSS. The
23	name and the abbreviation make it very easy to assume
24	that OSS is only concerned with technology. And OSS
25	is actually concerned with process.

In fact, the U.S. Department of Justice originally described what they call wholesale support processes. There's really a much better name for what's going on here, but OSS is the terminology that has stuck in the industry and in the process that we're in today.

Operations Support Systems include three
things: Systems, information, and personnel that
support the use of network elements or services.

There are two types of processes that are 10 included within operation support systems; automated 11 processes and manual processes. Both are important, 12 and both must be considered when you evaluate the 13 status of OSS. And these processes are required to 14 make resale services and unbundled elements 15 meaningfully available to competitors. They support 16 the five business functions that are often called the 17 five OSS functions, but these are really business 18 functions. 19

In implementing OSS functions, again, to be very careful, we must not focus only on the technology. We are in turn working with processes, the top tier that you see here. These are the tasks that need to get done. People and technology are what we use to get those tasks done with. Terrible

# FLORIDA PUBLIC SERVICE COMMISSION

sentence. But you have to have both people and 1 technology and processes that describe how they're 2 used to manage the network elements or the portions of 3 the data that you're trying to get. 4

So you see network elements, NEs. You see 5 databases, DBs. You see people that you recognize on 6 the third tier, and what we're trying to accomplish on 7 the business process is represented on the upper tier. 8 And so you've got to plan your OSS technology, your 9 business processes that support that technology, your 10 personnel training, your data architecture, and your 11 data communications together to support all of the 12 forms of market entry; resale, the use of unbundled 13 elements or facilities-based interconnection. 14

There's been a general consensus in the 15 industry, over the last four years that I've been 16 involved in working on OSSs, that gateways are the 17 potential solution to this problem. You saw yesterday 18 with Telcordia, they're talking about the many-to-one 19 problem. 20

They have a solution that's designed that 21 the industry, you know, longer term, people like AT&T 22 and MCI and some other players, we each are building 23 our own gateways to deal with folks today. 24 But what a gateway does, it allows new

25

FLORIDA PUBLIC SERVICE COMMISSION

1 entrants and BellSouth's operations support systems, 2 both the people and the computers, in this case 3 largely the computers, to exchange information with 4 each other as if they were one system seamlessly, yet 5 they can still operate independently from each other 6 internally.

We've had both successes and failures in
developing these gateways, between AT&T and BellSouth
specifically, and AT&T and other ILECs around the
country. Some of the things that help are the use of
industry standards, but you can develop gateways
without industry standards. Doing that helps promote
the development of industry standards.

One of the ways industry standards come about is two trading partners somewhere in this country figure out how to do something, and then they go tell the rest of the industry about it. They build a consensus around that solution and the industry adopts it. That's happened several times over the last four years.

But, ultimately, the two trading partners involved in any transaction have got to agree upon the data elements that they're going to transmit, how they're defined, what message formats they're going to use, and what communications protocols they're going

### FLORIDA PUBLIC SERVICE COMMISSION

1 || to use. Okay.

2	Gateways come in a pair. I've got a gateway
3	that talks to BellSouth about a lot of things. They
4	have a gateway that talks back to me. The Telcordia
5	solution today we put you saw yesterday actually
6	puts another gateway in the middle that talks to both
7	of them. And, again, that's a long-term, potential
8	solution to some problems that are facing the
9	industry.
10	But the important thing is that what we're

But the important thing is that what we're trying to do -- Sharon, you can go on to the next one -- is accomplish processes. Again, these are the business processes -- and this is an eye test for you folks with the half-page charts out there. It's not too much better for you Commissioners, I understand, and it's -- clearly it's not good here.

But across the top tier are the five business processes that OSSs support, and below each of those I've shown some of the functionality that we're talking about. You heard Mr. Stacy and the folks from GTE and Sprint talk about things like address validation and so forth yesterday, so you're familiar with those terms.

The next tier down are the OSSs and the work processes and the people that are necessary to

1	accomplish that. And in that tier I've tried to use
2	the BellSouth names for things in most cases, and so
3	you'll you see LENS and you see TAG and you see the
4	LCSC, and I've got a little plus sign there. That
5	means the LCSC and its other associated centers.
6	There's a UNE center that's part of that organization,
7	for example. There's some repair centers on the
8	wholesale side of BellSouth. So those names and
9	acronyms are all, to the best of my knowledge, you
10	know, we're doing with BellSouth.

So the business processes are what we're 11 trying to accomplish. The OSS and work processes are 12 the means to accomplish those business processes. And 13 then the next tier down is how are we doing; how is 14 success to be measured. And that's where you see the 15 performance measurements, and, again, these names come 16 out of the BellSouth region-wide SQM, service quality 17 management -- or measurement package. So these are 18 the measurements that are generally in place to 19 measure the success of the business processes being 20 21 supported by the OSSs.

And, finally, at the bottom is the goal. What we're trying to accomplish here is competitive choice for consumers. If we fail to provide to the CLEC industry equivalency to what happens in

FLORIDA PUBLIC SERVICE COMMISSION

BellSouth, the CLECs' customers will perceive the
 CLECs' business and service and products as being
 inferior.

Sharon -- and you can go on to the next one. 4 We've used a number of interfaces to work 5 with BellSouth since our initial market entry in 6 February of 1997. Again, I began discussing 7 interfaces with BellSouth in August of 1995, and we 8 did do some trial work in late '96, but we entered the g 10 resale market in the state of Georgia in February of 11 1997.

12 These are some of the interfaces that we've 13 used since then. These are the preordering 14 interfaces. Some of them were used as an interim 15 basis. We had what was called -- we had a direct 16 access to the regional street address guide, a thing 17 call IC ref, and we used that until about September of 18 1997.

We had, and still have a direct, download on occasion from the P/SIMS and COFFI databases at BellSouth. We've maintained that because throughout the iterations of the preordering interfaces that have been available to us, we have found that we get more information from this download than we get on a transaction by transaction using either LENS or ECI or

1 EC-LITE that we built or the TAG interface today.

2 COMMISSIONER JACOBS: That's an interesting
3 point. So in essence you get a better cat -- I should
4 say you get a better menu of features when --

5 MR. BRADBURY: It's what we're getting there 6 is a download of those entire databases where it will 7 take that download and put it into our computers and 8 manipulate the data as we want to manipulate it on a 9 transaction basis.

With the on-line interfaces, you go across and you ask on a specific customer-by-customer thing for that. By an address, you find out what features and services are available as BellSouth is delivering across those interfaces, and they're filtering some information out when they do that.

With -- this copy of the database that they
were providing to us had more information.

18 COMMISSIONER DEASON: How do you receive 19 updates to that database?

20 MR. BRADBURY: It's a network data mover 21 download. I think you saw that term yesterday. It's 22 a batch download, and this is a reasonably stable 23 database. You know, we're talking about the features 24 and services that are available in BellSouth's central 25 offices. That doesn't change every day. So I think

typically we have been taking that download about once
 a month.

3	Again, we also had a direct connection for a
4	while to the ATLAS, the number administration system,
5	so that we could get telephone numbers, and that was a
6	similar sort of thing, a network data mover. We sent
7	a request over for blocks of numbers, say, 100
8	numbers. We brought them. We managed those numbers
9	until we ran out of them and then we asked for another
10	block. And so that was an interim process we used
11	until we started using LENS.
12	You see right there we used ATLAS to
13	September of '97, and from September of '97 on we have
14	been making use of the BellSouth LENS ordering,
15	preordering interface.
16	We jointly built and we did use for a period
17	of time another preordering interface called EC-LITE.
18	We used it from January through July of last year. It
19	had the same functionality as LENS basically. We are
20	currently also making use of the preordering
21	capability in the TAG interface that BellSouth
22	developed and put into service last year.
23	We turned it up on January the 15th and, to
24	the best of my knowledge, we were the first CLEC that
25	actually put that into a production mode with

# FLORIDA PUBLIC SERVICE COMMISSION

BellSouth. We're not making a great deal of use of it right now. We're slowly integrating that into our back-end systems, but we are using it and, as I'll talk about later, we're only using it for a limited set of functions.

6 Ordering and provisioning: We use 7 predominantly the EDI interface, and this is the 8 mainframe version of EDI. There's a difference 9 between that and what I'll call the PC version of EDI 10 we'll talk about later. We use it for ordering 11 provisioning.

We turned it up for use in early '97. We've 12 gone through each of the changes, inversions that have 13 come out, and we're looking forward to the OSS '99 14 version that will come out now in probably September 15 or October of this year; and this is the merged 16 version that's designed to save each of us some IT 17 development resources in not having to step 18 individually through 8, 9 and 10. So we're looking 19 forward to that. 20

We also make use of the exact interfaces, the same interface that's used in the interconnection world in the IXC world to get trunks and things of that nature.

25

We did make use of LENS in testing, but

never used it in production for ordering. 1 EDI-PC, we also became certified in that 2 last year. One of our business units looked at it 3 briefly for an interim use. They never really got 4 that far with it, but we maintain our little secure 5 6 card and we use it on a dial-up basis; so we can still 7 use it if we need to. And of course we do a considerable amount of 8 9 business in our ordering provisioning over manual facilities by sending faxes. There are many things 10 that you can only do today by sending a fax. 11 COMMISSIONER JACOBS: Are you at liberty to 12 say why LENS never -- for this particular function 13 never moved into production? 14 MR. BRADBURY: We've been an EDI user all 15 along. EDI has much fuller capabilities. It's 16 17 machine to machine. It's integratable into our back-end systems, whereas the LENS is a human to 18 machine interface; and so if you're going to use LENS 19 to maintain your own database, you have the double 20 entry. 21 22 COMMISSIONER JACOBS: And LENS, your focus there would be entering stuff, but now you can do 23 direct --24 25 MR. BRADBURY: Yeah.

FLORIDA PUBLIC SERVICE COMMISSION

COMMISSIONER JACOBS: 1 Okay. 2 MR. BRADBURY: A couple other -- I lumped together here maintenance and repair billing in a 3 miscellaneous interface that we've made use of over 4 5 the years. There's been an electronic bonding interface 6 in the interexchange community for a long time called 7 8 EBI. It had potential use for local. You could pass a ticket that way. We've never used it that way. We 9 10 did build to and utilized BellSouth's ECTA. This is a version of electronic bonded interfaces that's 11 12 specific to local, and we did build and use that in 13 the March to April time frame last year. 14 We stopped because it takes a critical mass 15 of a large number of customers to make that efficient. Okay. It's a machine to machine. It's designed for 16 high volume. 17 18 We have a new chairman of our corporation, 19 came on board about 18 months ago. He looked at our 20 market entry plans, at that point which were based on resale, and he said, folks, I can't continue to lose 21 22 \$4 a month on every customer you sign up; so he put an end to that. 23 24 We put then the EBI ECTA interface on the

FLORIDA PUBLIC SERVICE COMMISSION

shelf. We still have all the hardware and software

running. When we have a critical mass of customers
 again, we would turn that back on and use that as our
 maintenance and repair interface.

We did a brief evaluation of TAFI. Our business units concluded when they did that in July of '97 that because that of the lack of back-end integration on our side -- it's a -- again human to machine, so if we used that -- and I'll talk about this later -- I would have to work in TAFI, then turn around and update my own databases' dual entry.

In terms of billing interfaces, we make use of all of the available usage records that are out there; the ODUF, ADUF (phonetic). Extended -- ODUF you saw. And I don't think we were going to talk a whole lot about billing here, but I wanted to show that we've been doing that.

We receive most of the billing that we get from BellSouth where we have to pay them over the CAB system, carrier access billing system. And there's one other interface that we have that manages who is the long distance carrier for this local customer. We exchanged that over a system called CARE, and that's up been up in service right along.

24 COMMISSIONER DEASON: Let me ask a question
25 before you leave that slide.

FLORIDA PUBLIC SERVICE COMMISSION

ļ	
1	What interface are you currently using for
2	maintenance and repair?
3	MR. BRADBURY: Telephone. When we turned
4	down the EBI interface, we went back to telephoning
5	our orders in. And, you know, I've got a section on
6	maintenance where I'll talk about why we do that.
7	It's a consistency of process issue.
8	Okay. So those are so that's what we've
9	used with BellSouth.
10	I'll use the next two slides here to talk
11	about what's on the left side of the screens. I get
12	turned around here every once in a while.
13	This is our side of the gateways, and the
14	right side is what's on BellSouth's side of the
15	gateways. Again, starting from the top, we do still
16	have a capability to use web LENS for preordering and
17	are using it that way.
18	We still do get the P/SIMS download that we
19	put in a database we call LUDM (phonetic), local
20	gee whiz; what was that? I can't even remember but
21	that's we've put it in that database, and we
22	integrate it to our what's called here the AT&T
23	integrated front-end system.
24	This is a new system that we're coming up on
25	line with now. Its other name is BLISS. Great name

FLORIDA PUBLIC SERVICE COMMISSION

for an interface. It's our business local integrated 1 support system. In past years we've had a host of 2 systems out there. Each of the business units would 3 have potentially a different front-end system that 4 their service reps worked with. We're trying to get 5 to a common system. BLISS is that system that's being 6 implemented across the business units this year and 7 next. 8 COMMISSIONER DEASON: Do you all have 9 someone whose responsibility it is to come up with 10 these acronyms? (Laughter) 11 MR. BRADBURY: I have had no idea. 12 **COMMISSIONER DEASON:** Okay. Pretty 13 ingenious, some of them. 14 MR. BRADBURY: Some of them are. BLISS, as 15 you see, talks to an order manager, and then the next 16 thing over an order gateway. It's got the name ECIP 17 18 on it, ECIP. That's electronic communications 19 integration platform. 20 We've built three different versions of that 21 over the last three years. When it first came up, we 22 were using what we called ECIP-1. We're now on ECIP-2, and ECIP-3 is tied to the BLISS development 23 and being implemented as we speak. So we've gone 24 through quite a few systems on our side of the 25

FLORIDA PUBLIC SERVICE COMMISSION

1 interface over the last three years.

We do maintain the capability of using BEDI-PC. One of the things I want to show you that's different here between EDI -- and I'll use BLISS --BLISS works over EDI. And we talk to BellSouth's EDI gateway.

You'll notice that in BLISS or an EDI
interface you've got the two gateways that we were
talking about before. I've got my system on my side.
It's separate from BellSouth's. I can build all of
the functionality and editing capability of that
interface that I want to make it be mine.

If you use the EDI-PC interface, you'll see 13 that there's no gateway on the CLEC's side of this 14 This is a PC stand-alone provided by a diagram. 15 third-party vendor that BellSouth has given the 16 specifications to. You buy this package from them and 17 So you can't really effectively you use it. Okay. 18 add a lot of edits to that aren't already in it. 19

So you're -- then you're using this, you're dependent on the edits that come with it, which may not be as robust as what you would build yourself. So it's -- while it still uses an EDI format, it is different from a full EDI operation.

Sharon, we can go to the next.

25

Again, here's -- you see our integrated front-end system again, BLISS. Here we're talking to BellSouth's TAG interface. The gateway we're talking to here is TAG instead of the EDI gateway. We're using this for preordering, so you see it's preordering. We're not using the leg down here of TAG that is designed for ordering.

So what we're doing is taking preordering 8 TAG information using our ECIP and BLISS systems to 9 integrate that with the EDI ordering that you saw on 10 the previous page to send an EDI order back. So we're 11 doing that integration on our side. Others may elect 12 to take and use the two pieces of TAG and integrate 13 them on their side. We do still place an awful lot of 14 orders by telephone. 15

We place all of our trouble tickets today by telephone, although we have the hardware and software in place to reactivate the ECTA interface if we wanted to or when we reach that critical mass that makes it economically efficient to do that. And we looked at TAFI and are not using that.

All right. I'd like to move now into the preordering section.

24COMMISSIONER DEASON:Before you leave that,25how do you -- you just do it by telephone -- and I'm

#### FLORIDA PUBLIC SERVICE COMMISSION

talking about the trouble tickets. Do you have some 1 type of internal system where you keep track of those 2 so you can determine the time period it takes to 3 reconcile a --4 5 MR. BRADBURY: Yes, we do. COMMISSIONER DEASON: -- trouble ticket and 6 7 that sort of thing? MR. BRADBURY: We have a -- that's one of 8 the reasons we do that. We have a standard process on 9 10 our side that makes use of a trouble report system. We enter our troubles into that system so that we can 11 keep track of what our customers' trouble conditions 12 13 were. 14 We can -- it constantly updates the database 15 that tells what our customers' experience has been throughout time, and then we telephone the report to 16 BellSouth using a script that we have negotiated with 17 them so that that transaction is very -- we call in, 18 we say who we are, and go straight down the script and 19 20 pass them the trouble. COMMISSIONER JACOBS: If I recall, TAFI had 21 the capability of you hooking into a live test on the 22 line; is that correct? Was that --23 MR. BRADBURY: TAFI has a lot of great 24 functionalities, and one of the things -- again, we 25

started talking about maintenance in 1996 and, in 1 fact, that's when we first found out about TAFI. And 2 when we first found out about it, we asked BellSouth, 3 please provide us the TAFI functionality over the 4 electronic bonded interface. 5 So we've had that request on the table with 6 them since April of 1996. We don't have it yet. It 7 appears that maybe sometime a couple years down the 8 road that might happen. It's been technologically 9 possible for the entire period of time. 10 COMMISSIONER JACOBS: Now, absent that 11 capability, I assume that you're doing something 12 before you call in. Have you gone through and done 13 14 your own live tests or are you --MR. BRADBURY: I can't -- with the 15 16 configuration I have now, I can't look into 17 BellSouth's network and conduct any tests. 18 COMMISSIONER JACOBS: Okay. So they have to do that on the other end. 19 20 MR. BRADBURY: Right. COMMISSIONER JACOBS: And if I recall, one 21 22 of the other LECs yesterday -- I think it was GTE --23 said that they expect that the CLEC would have done that before they called. 24 25 MR. BRADBURY: What we can do is -- you

know, with this script we've negotiated, we've asked 1 all of the questions of our customer that BellSouth 2 needs the answers to when we call them. 3 COMMISSIONER JACOBS: Okay. 4 MR. BRADBURY: But since I don't have any 5 physical connectivity to BellSouth's network if I'm 6 dealing with a resale customer, I can't test that, do 7 8 a test. If I had -- you know, with the EBI 9 10 interface, if it had the full functionality, I could do all of it myself and never even have to talk to 11 12 BellSouth. 13 Again, I've got a section at the end; we'll see several slides on maintenance and make this 14 explanation a little clearer at that point. 15 Mentioned earlier that we had done testing 16 and we have the TAG interface for preordering up and 17 running in BellSouth's production machine and AT&T's 18 production machine. We're only using two of the 19 transactions currently; the address validation and the 20 customer service record retrieval. And the business 21 unit that's using this right now is our AT&T digital 22 link product line. This is our -- it's a large 23 customer. 24 We already have a physical connectivity 25

between that customer's PBX and our 4ESS machine. So 1 there's a lot of things that we're not interested in 2 about that customer that is in BellSouth's database. 3 An interesting thing about TAG, it's been 4 available for preordering use since August of last 5 year, yet BellSouth has produced absolutely no 6 operational data about its operation for preordering. 7 Similarly, it's been available for ordering 8 use since November of last year. On the March 9 flow-through report, there were two TAG orders, both 10 of which failed to flow throw because of BellSouth 11 programing errors. So TAG really, in my estimation, 12 is not a commercially available interface today. 13 Mr. Stacy talked about he's got seven folks 14 15 who are going to come up on it here in the next 30 16 days or so. That may be fine, but at this point in 17 time, there's no operational data to support the fact that TAG has any commercial operations. 18 COMMISSIONER DEASON: How many orders have 19 you placed through TAG? 20 MR. BRADBURY: We don't use TAG for 21 ordering. 22 23 COMMISSIONER DEASON: So it's kind of hard to get information from BellSouth as to whether it's 24 25 working, isn't it? I mean, you say you want

FLORIDA PUBLIC SERVICE COMMISSION

li	
1	information, but you've not used it.
2	MR. BRADBURY: I'm using it for preordering.
3	COMMISSIONER DEASON: I'm asking you about
4	ordering, and you're
5	MR. BRADBURY: For ordering, since I'm not
6	using it, I can only look at the information BellSouth
7	produces about who is using what interfaces, the
8	flow-through. There have been no data for TAG in the
9	flow-through report until March when there were two
10	orders placed by someone.
11	COMMISSIONER DEASON: And you want somebody
12	else to be the guinea pig before you do it
13	MR. BRADBURY: No. This is just not an
14	interface I'm going to use for ordering. We're doing
15	the EDI interface for ordering. But it appears from
16	BellSouth's data that there is no one in commercial
17	production through the end of March for ordering using
18	TAG.
19	COMMISSIONER JACOBS: Is this something that
20	ATTIS or someone like that should undertake?
21	MR. BRADBURY: No, sir. I think from
22	what I hear from the states, there are going to be
23	people using it. If you've got this large customer
24	that's going to move from the ordering vehicle they're
25	using to your LENS or an EDI-PC to this, you should
	I

# FLORIDA PUBLIC SERVICE COMMISSION

----

start to see data in the flow-through reports about 1 TAG in the future; but the absence of data today just 2 tells me that there's nobody using it. 3 COMMISSIONER JOHNSON: Why did you all 4 decide not to use the TAG methodology, or whatever 5 6 it's called, for ordering what --7 MR. BRADBURY: Because we were already using 8 the EDI ordering interface. The two interfaces, EDI and TAG, for ordering have the same functionality. 9 COMMISSIONER JOHNSON: Why would someone --10 I'm just trying to better understand those, too, then, 11 and I know that Mr. Stacy said that they were similar; 12 they just use different software. I thought I had 13 some notes. 14 But just better understanding the two, I'm 15 assuming that those seven customers that he referred 16 to, weren't they EDI but they're switching over to 17 TAG? 18 MR. BRADBURY: Mr. Stacy said yesterday that 19 they were LENS switching to TAG. 20 21 COMMISSIONER JOHNSON: Oh they were LENS, and LENS isn't integratable --22 23 MR. BRADBURY: Correct. COMMISSIONER JOHNSON: But EDI is 24 25 integratable, so --

#### FLORIDA PUBLIC SERVICE COMMISSION

MR. BRADBURY: EDI mainframe is 1 integratable. EDI-PC is also not integratable. 2 That's the point I tried to make earlier. 3 COMMISSIONER JOHNSON: Okay. Well, then 4 what's the difference in the two? Why would you need 5 TAG is a -- I thought TAG was kind of like the 6 a TAG? next step, more advanced technology. Why would one go 7 to TAG at all? Why is it necessary? So it may not 8 matter if it works or not if EDI does, you know. So 9 what's --10 MR. BRADBURY: Mainframe EDI -- and, Bill, 11 12 you can correct me if I'm wrong -- I think the only two regular users, or even reasonably regular users of 13 mainframe EDI, have been AT&T and MCI on occasion. We 14 talked to the other people who -- there just aren't 15 any people making use of mainframe EDI. You know, 16 17 it's expensive. It's designed for large carriers. TAG covers a much broader scope of carriers. 18 **COMMISSIONER JACOBS:** It was web based? 19 20 MR. BRADBURY: No, it's not web based. You can reach TAG off the Internet, but its -- its 21 technology has a lot of the similarities, and it's 22 also used there, but it is not, you know, a web based 23 thing. It's much better than that. 24 25 COMMISSIONER JOHNSON: So because EDI is --

FLORIDA PUBLIC SERVICE COMMISSION

you said it's mainframe EDI, it would be a more 1 expensive proposition for smaller carriers and 2 providers, and that's why they're developing, you 3 would think, the TAG, to accommodate mid to smaller 4 5 users? MR. BRADBURY: It cover a much -- yeah. It 6 allows a much larger scope of the CLEC industry to 7 have an integrated interface. 8 COMMISSIONER JOHNSON: Otherwise those CLECs 9 currently probably would have been using LENS, and 10 that was not integratable? 11 12 MR. BRADBURY: Correct. **COMMISSIONER JOHNSON:** Okay. I'm following 13 14 you. Thanks. COMMISSIONER CLARK: What makes TAG less 15 16 expensive or more attractive to the medium to small carriers? 17 18 MR. BRADBURY: Okay. TAG generally runs on today's modern world of information technology called 19 client server. These things are, you know, not much 20 bigger than your desktop PCs -- it can be real 21 22 large -- but it's a much more flexible architecture. 23 It's much cheaper. Those machines don't cost what a 24 large mainframe costs. 25 The software that supports TAG, the CORBA

software, is a much more commonly understood software. 1 There are many more programmers around who can deal in 2 CORBA than can deal in the software that supports the 3 integrate -- the interfaces like an EDI full gateway 4 5 to gateway. COMMISSIONER CLARK: Well, then why isn't it 6 7 to your advantage to change to TAG? MR. BRADBURY: I'm already invested in a 8 full mainframe EDI format. I've already made that 9 investment. It has the same functionality that TAG 10 has. There's no -- you know, no incentive for me to 11 qo that direction. 12 COMMISSIONER CLARK: Okay. 13 MR. BRADBURY: (Pause) Due date has been at 14 issue within the preordering arena for some number of 15 years. BellSouth recently added a preorder due date 16 calculation capability in TAG and LENS for resale. 17 I'm uncertain, from the discussion I heard 18 yesterday, whether there's such a capability in TAG 19 for UNEs, and the reason I'm uncertain is Mr. Stacy 20 said, you know, UNEs have this fixed interval and are 21 always going to do that. So I'm not sure if I can 22 calculate that in TAG. 23 But even with a due date calculation 24 capability, we still don't have nondiscriminatory 25

access to due dates with BellSouth. BellSouth, unlike 1 GTE and some of the other CLECs -- or ILECs, doesn't 2 provide a due date reservation capability, where if 3 I'm doing preordering and I get a due date, if I 4 submit an order within X number of hours, that due 5 date is good. You saw GTE talk about that yesterday. 6 That capability doesn't exist with BellSouth. So I 7 only get that due date when BellSouth issues --8 CHAIRMAN GARCIA: But isn't the UNE more of 9 a technical function than necessarily a client issue? 10 In other words, getting the unbundled network element 11 12 is something that you have to do with -- between you 13 and the new client, not necessarily between you and BellSouth? That's something to be determined by 14 15 technicians at a future date? MR. BRADBURY: No. Getting the UNE is 16 between me and BellSouth. 17 CHAIRMAN GARCIA: Right. 18 19 MR. BRADBURY: Okay. 20 CHAIRMAN GARCIA: But the due date there, if I remember correctly the presentation, is they get 21 back to you in two days for that span, and then they 22 confirm that, and then you're able to work that into 23 your schedule or -- isn't that how it worked? 24 25 MR. BRADBURY: That has not been our

1 experience with it to date. Okay. BellSouth has not 2 made consistently the interval -- the target intervals 3 that are in their interval guide. We've not been able 4 to depend on them making a loop, a UNE loop, available 5 in seven days.

6 COMMISSIONER DEASON: I have a question. 7 Your concern that there is not a due date reservation 8 capability in, I take it that what you would like to 9 have is that when you go through ordering and you get 10 an estimated due date, that you want that spot 11 reserved so that that installation can take place on 12 your indicated reservation date; is that correct?

MR. BRADBURY: If my -- I'm getting that due 13 date while I'm doing my preordering work with my 14 customer. What I've been asking for for three and a 15 half years is if I give you an order within a 16 reasonable period of time after that, eight hours or 17 less, if that due date that I obtained in preordering 18 would still be good whenever -- within the next eight 19 hours, I submit to you a good order. 20

21 COMMISSIONER DEASON: But aren't you asking
22 them basically -23 MR. BRADBURY: The reason-24 COMMISSIONER DEASON: Let me ask my
25 question, and you can explain.

#### FLORIDA PUBLIC SERVICE COMMISSION

Aren't you basically then asking them -because every time you do a preorder, you're not going to do an order, and every time you do an order, you're not going to get a firm order.

5 So if you have that reservation, isn't it 6 kind of analogous to selling more seats on a airplane 7 than actually -- because you know that some people 8 aren't going to show up -- are you asking them to give 9 you a reservation date, and then if everything flows 10 through, they may have to cancel some of those --

11 MR. BRADBURY: I would expect that to be 12 very small. Again, I'm -- here I would be dealing 13 with a customer who is saying, I want service. I'm 14 taking the order from the customer. I have a firm 15 order from the customer before I obtain that due date 16 and reservation in the computer mode.

Then what I'm into is managing my process to get that order clean to BellSouth within whatever that window is. Let's call it four hours. At the end of that four hours, that reservation vanishes.

21 COMMISSIONER DEASON: So you basically --22 what you want then --23 MR. BRADBURY: Only --

24 **COMMISSIONER DEASON:** -- is when you get 25 that reservation, you want it to be good for at least

a period of time that if you process that order within 1 that period of time, you know that's a good date. 2 MR. BRADBURY: That's correct. 3 COMMISSIONER JOHNSON: And they don't 4 provide that now? Tell me how it works now. 5 MR. BRADBURY: How it works now is, I talk 6 with my customer. I see that due date. I tell the 7 customer then. I submit my order. And let's say I 8 submit my order and it gets to BellSouth in three and 9 a half hours, and BellSouth FOCs that order, puts the 10 order into their system. 11 In that three and a half hours' time, other 12 people, BellSouth, other CLECs, have been placing 13 orders in that same central office or for that same 14 work group. The due date that I saw three hours ago 15 may not be available now because of other orders that 16 have processed in that period of time. 17 COMMISSIONER JOHNSON: And --18 MR. BRADBURY: And so what happens then --19 20 CHAIRMAN GARCIA: -- who are the --MR. BRADBURY: -- is when I get the --21 CHAIRMAN GARCIA: Who are the orders you're 22 23 worried about? Other companies, or BellSouth --MR. BRADBURY: Both. There's multiple --24 CHAIRMAN GARCIA: Don't they all have the 25

I	
1	same don't they all end up at the same place?
2	MR. BRADBURY: Because of the difference in
3	process, BellSouth when BellSouth submits that
4	order, when they don't have the delay, the
5	potential delay, that the CLEC community has.
6	COMMISSIONER JOHNSON: Could you explain the
7	delay again. I don't know why I'm missing this point.
8	But what's the delay that the CLECs have that
9	BellSouth
10	MR. BRADBURY: Okay. When BellSouth submits
11	an order using let's use RNS, the RNS system, that
12	order automatically flows over to their SOC system
13	within in near realtime and is unless they've
14	really screwed up their order, is accepted right then.
15	And so the period of time between when you
16	have worked with a customer and the order is accepted
17	by SOCS is minutes. The period of time for a CLEC,
18	depending on the type of ordering interfaces they're
19	using, could be at a minimum, right now with EDI
20	it's a minimum of 15 minutes, which is not too bad.
21	Actually that's just to get at their front gateway
22	there's two other gates in the LEO LESOG that it's
23	actually a 30-minute minimum that it's going to get
24	there if you do absolutely nothing wrong and you do
25	everything right.
	1

Some -- you know, that's for me with an EBI. 1 If you're using some of the other interfaces, there 2 may be longer delays. 3 COMMISSIONER JOHNSON: So it's just getting 4 it processed is --5 MR. BRADBURY: Right. 6 COMMISSIONER JOHNSON: -- a 30 to --7 MR. BRADBURY: 30 to something. 8 COMMISSIONER JOHNSON: -- 30 to 9 10 something-minute wait, whereas BellSouth is processed automatically. So they get in the queue -- there's 11 12 is --Their order --13 MR. BRADBURY: COMMISSIONER JOHNSON: -- more 14 15 predictability --MR. BRADBURY: Right. 16 COMMISSIONER JOHNSON: -- with respect to 17 getting in the queue. Okay. 18 COMMISSIONER JACOBS: And not until you --19 the date is not official until you get accepted in 20 SOCS, right? 21 22 MR. BRADBURY: That's correct. COMMISSIONER JACOBS: And, of course, 23 24 || yesterday -- if you edited out of SOCS, you still haven't gotten your reservations yet. 25

That would 1 MR. BRADBURY: That's correct. also be true for BellSouth. If their order falls out 2 of SOCS, their due date isn't good either. Okay. 3 So I don't want to --4 COMMISSIONER JOHNSON: And the solution --5 I'm sorry. Go ahead. 6 COMMISSIONER JACOBS: It sounds like, then, 7 8 you're getting a real date -- well, let me ask you this -- ask it this way: Once -- whatever time delay 9 10 has -- has it expired, you've gotten your date, how effective are you in, let's say, in EDI in getting 11 that back now; you know, do you then get back the real 12 date within some reasonable period of time? 13 MR. BRADBURY: That's the firm order 14 confirmation interval. And I've got a slide much 15 further on to show you what current performance is on 16 that. It varies from eight hours to several days. 17 COMMISSIONER JOHNSON: And how do the 18 19 other -- you said GTE and the other ILECs have a different --20 MR. BRADBURY: Some other ILECs have a 21 process that allows you to -- as you're doing a 22 preorder and come upon a due date, you can reserve 23 24 that due date, and if you --COMMISSIONER JOHNSON: Before the FOC --25

FLORIDA PUBLIC SERVICE COMMISSION

MR. BRADBURY: -- successfully submit an 1 order within a window period of time -- and you saw 2 GTE yesterday. If you reserve one by noon, if you 3 submit your order by 5:00, you're good. If you 4 reserve one after noon and if you order before noon 5 the next day, it's good. 6 So there's a window in there. 7 The reservation disappears so you're not looking up many 8 times beyond what we think is a reasonable request. 9 Okay. Sharon. 10 We had some discussion yesterday about 11 customer service record information. We can retrieve 12 that information using a number of databases. 13 However, that information is not parsed today the same 14 way that BellSouth is capable of parsing and does 15 parse it for itself as you saw in the RNS 16 17 demonstrations yesterday. Okay. Sharon. 18 CHAIRMAN GARCIA: Go back. Tell me what 19 exactly you mean by this. Walk me through this. 20 21 MR. BRADBURY: Okay. CHAIRMAN GARCIA: What do you want, I think 22 would be the better question. 23 MR. BRADBURY: Okay. With parsing, I will 24 be able -- if I'm doing an order where I need to send 25

back to BellSouth information about the customer that
 BellSouth already has, okay -- in the customer service
 record, so I have to build that order that replicates
 that customer service record.

And this is true of a migration. With --5 what we used to do with migrations is specified, okay, 6 because there are certain things that are in that 7 customer record I don't want when I migrate a 8 customer. For example, we didn't want inside wiring, 9 okay. But I had to replicate everything else that was 10 in that customer's service record back to BellSouth. 11 12 Okay.

Without parsing, I had to take that block of text, read it -- I have -- my people have to read those codes that BellSouth's people have, and read those same codes, turn them into whatever I'm putting into my system; because I don't put those -- my people don't put codes into their system; they put English.

So I have to do an English -- a code to
English on a manual basis, put it into my system,
which does then an English back to code to send to
BellSouth.

With a full parsing capability, I can accept that machine -- code, machine to machine, put it over into my order, show my rep that in English. They

never have to enter it because it's already in there, 1 but you avoid errors. 2 The process I've got now it's easy for us to 3 miss something that's on a customer service record or 4 to input it -- reinput it incorrectly converting it 5 6 from their code to my English; I may retype it wrong. COMMISSIONER DEASON: If you know what the 7 8 codes are, can't you do that yourself? 9 MR. BRADBURY: No; because, again, my people don't type in code. Just like Bell's people in RNS 10 type in English, our front ends type in English. 11 COMMISSIONER DEASON: I'm talking about --12 MR. BRADBURY: -- (inaudible overlap) -- the 13 customer service record --14 COMMISSIONER DEASON: -- if you --15 MR. BRADBURY: -- in code in a format that I 16 17 can't machine load it, so I have to display it. They 18 have --19 COMMISSIONER DEASON: Well, I guess my 20 question is, whose burden is that? Is it your burden -- if they give you the information for you to 21 22 take it and put it in whatever format or language or protocol you want, or is it their responsibility to 23 serve it to you the way you want it, in the format you 24 want, in the protocol you want? 25

1MR. BRADBURY: Okay. I believe it's their2responsibility to provide it to me the same way that3they are providing it to their own people. And you4saw yesterday that they provide to the RNS system a5customer service record that is parsed in such a6fashion that the RNS system can put the English on it7to display. Okay.

I'm not getting that. I'm getting a version 8 that is only code, blocked together such that I can't 9 do what the RNS people have done as easily. Now, I 10 would be lying to you if I said I can't do something 11 with that record. I can do something with it, but I 12 can't do it as efficiently because of the way -- as 13 BellSouth does it in our nest because of the way it 14 comes to me. 15 They have the capability of giving it to 16 you parsed, broken into segments that are machine 17 handleable very easily.

 18
 COMMISSIONER JOHNSON: And that's what they

 19
 do - 

MR. BRADBURY: But they --

20

COMMISSIONER JOHNSON: -- for themselves?
MR. BRADBURY: That's what they do for
themselves when they submit that information to RNS.
COMMISSIONER JOHNSON: And you want them to
do it for you and just charge you for it? It's

#### FLORIDA PUBLIC SERVICE COMMISSION

cheaper for them to do and then just charge you for it 1 as opposed to you to get it not parsed and --2 MR. BRADBURY: I don't have any -- any feel 3 for charging on it. 4 COMMISSIONER JOHNSON: Well --5 MR. BRADBURY: I work on the technical side. 6 COMMISSIONER JOHNSON: Aha. 7 COMMISSIONER DEASON: Well, you see, 8 yesterday it seemed to me when the BellSouth 9 individual indicated that they provide the information 10 to -- they're kind of the support group, and they 11 provide it in whatever format those other 12 organizations within BellSouth that want it. 13 And there was one organization that did 14 complex business that basically wanted to do it in 15 16 code because they had the expertise and training and it was more cost-effective for them to do it than it 17 was to set up the capability to put it in English, for 18 19 lack of a better term, but that they did that for another group that wanted it that way. 20 21 And I got the impression that it was like he was treating those groups within BellSouth as a 22 23 customer like he treats you as a customer in that it's 24 a question of if they want it and are willing to pay 25 for it type situation. And am I misunderstanding how

that works? 1 MR. BRADBURY: That is what Mr. Stacy said. 2 What I find wrong with that is that is all BellSouth. 3 This line that Mr. Stacy has drawn on there between 4 BellSouth retail and BellSouth wholesale doesn't mean 5 anything in the context that we're here in. That's 6 all BellSouth. That retail is not a separate legal 7 entity. It's the same organization. It's BellSouth. 8 And their obligation is for BellSouth to provide to 9 competitors what they're providing to themselves. 10 That's Bradbury, nonlawyer, but that's how I 11 read the Act. And that's all BellSouth; that 12 distinction between BellSouth retail and BellSouth 13 wholesale is meaningless. 14 15 COMMISSIONER DEASON: So if they spun that off into a separate subsidiary and had their own 16 entity within, you wouldn't have a reason to complain, 17 then, in that --18 19 MR. BRADBURY: It would certainly change the 20 ground rules. 21 COMMISSIONER DEASON: Oh; okay. MR. BRADBURY: All right. Talk about 22 response times: How quickly do I get information back 23 as compared to how BellSouth gets information back. 24 25 BellSouth reports these response times in

1 their SQM reports in other states. I don't think they
2 have a regular reporting here in this state that I
3 recall.

What I have done is taken the information that they report and created a weighted average across all of the transactions, because they do it by several different databases.

8 Historically you can see here a difference 9 around 3%, three seconds per transaction, weighted 10 transaction, November, December last year. It is an 11 abnormality, I think, in January where it looks like 12 there's only one second difference. There were a lot 13 of things very funny about that particular month's 14 data, and I'll just give you one as an example.

15 Historically in this data, CLECs make preorder inquiry requests 10 or 12 times per 16 || mechanized order. For the month of January, that 17 18 ratio went up to 20 times. So there's something a 19 little screwy, I think, in the data collection there. 20 So historically there's been about a three-second -difference on a weighted basis, but I'm doing this 10 21 or 12 times in my conversation with you in this 22 contact that we're having about establishing service 23 24 II or changing your service.

25

Now, each of you probably occasionally makes

your own travel reservations; hotel, motel, airline. 1 You know how frustrated you get when you're talking 2 with that rep and they say, I have to wait on my 3 computer. We've been become a very impatient society. 4 One, two, three seconds' delay in a normal 5 conversation is perceived as being poor service. 6 If that happens to me five, six, seven, 7 eight times in a transaction, my feeling about that 8 transaction continues to degrade. So three seconds' 9 difference is important when it occurs 10 times. 10 COMMISSIONER JOHNSON: And this --11 MR. BRADBURY: Or any number of times. 12 13 COMMISSIONER JOHNSON: And this preordering response is -- it's all the computer transaction, you 14 getting the data --15 MR. BRADBURY: Correct. 16 17 COMMISSIONER JOHNSON: It has nothing to do with the human beings. 18 19 MR. BRADBURY: Right. 20 COMMISSIONER JOHNSON: And what would you 21 say is the cause for that? 22 MR. BRADBURY: Well, obviously it does have 23 a cost, and it --24 COMMISSIONER JOHNSON: No; the cause of --25 MR. BRADBURY: Cause ---

ĺĺ	
1	<b>COMMISSIONER JOHNSON:</b> of the delay.
2	MR. BRADBURY: of that?
3	COMMISSIONER JOHNSON: Just for
4	MR. BRADBURY: I don't really know what the
5	cause is. You know, it's just the difference in how
6	the two systems are operating today, how BellSouth
7	systems are operating for themselves and how the
8	systems they're providing for us are operating for us.
9	COMMISSIONER JOHNSON: And the systems that
10	are operating for you all, there's a I guess
11	there's a couple extra steps, the diagram I mean,
12	the traffic travels a greater distance and through
13	more gateways, for lack of a better word? That may
14	be
15	MR. BRADBURY: Where this measurement is
16	taken?
17	COMMISSIONER JOHNSON: Yeah; that's what I'm
18	trying to
19	MR. BRADBURY: Okay. Where this measurement
20	is taken doesn't does not build in any delay that
21	occurs on my side of
22	COMMISSIONER JOHNSON: That would be
23	MR. BRADBURY: their gateway.
24	COMMISSIONER JOHNSON: Yeah.
25	MR. BRADBURY: Okay. If there's any delay

on my side of that gateway, I'm not --1 COMMISSIONER JOHNSON: That's not counted. 2 That's what I was wondering, if it --3 MR. BRADBURY: No. 4 COMMISSIONER JOHNSON: So this is all on 5 BellSouth's side of the --6 MR. BRADBURY: That's --7 **COMMISSIONER JOHNSON:** -- gateway? 8 MR. BRADBURY: -- correct. 9 COMMISSIONER JOHNSON: Okay. Thanks. 10 MR. BRADBURY: Thank you for the question. 11 There are some other issues around 12 performance measurements with preorder. We talked 13 about the average weighted transaction. Customer 14 15 service access intervals are longer yet. They 16 traditionally have about a four or five or six-second 17 differential between what BellSouth does. BellSouth -- we get such a transaction 18 typically in about six seconds. They get it in about 19 two. So that particular transaction has a much larger 20 21 differential, and that's very important, because that 22 particular transaction in the CLEC world represents 50 23 to 60% of all the transactions that are done. For BellSouth, it's only 14 of their transactions. So 24 II I've got a transaction that has a longer interval and 25

1 I use it more often. Okay.

The data that's been presented today -again, I've said this earlier -- TAG has been an available preordering interface since August, but there has been no TAG response time data ever presented.

7 Similarly, BellSouth only provides data about its RNS system. It doesn't provide data about 8 the response times that people using DOE to receive 9 information in BellSouth get. Why is that important? 10 That's the business side. You know, BellSouth says, 11 well, you know, in LENS you're getting both business 12 and residence. Well, they're only comparing that 13 against residence. 14

Another measurement is called percent 15 availability. This is, are the systems available for 16 17 use. The way BellSouth reports this particular one is as a percentage. What's wrong with that? If I see 18 19 100%, you think we're all getting the same thing. But 20 if my system was scheduled for 100 hours and up 100 hours, the BellSouth system was scheduled for 200 21 22 hours and up 200 hours, who had more availability? 23 The system that was up more hours. But the hours that the systems are up are not presented. 24

So the percentage, while it appears to

25

represent a fair comparison, masks the actual number 1 of hours that might be available between systems. 2 Any other questions on preordering? 3 COMMISSIONER DEASON: Can you go back? I 4 guess I missed the point on the percent availability. 5 I understand that if it's the same percent applied to 6 a higher base, one is a greater absolute value than 7 the other. Is that the point you're --8 MR. BRADBURY: Yeah. 9 COMMISSIONER DEASON: And how do they 10 determine how many hours one is going to be available 11 for one versus the other? 12 MR. BRADBURY: That's -- you know, they 13 determine that themselves, and some of the -- is 14 15 maintenance needs. You know, you do have to turn the computers systems down at certain hours of the day. 16 17 At this point in time, as I recall, I think we've got all of the systems pretty much on the same 18 19 amount of maintenance hours, but they may have other reasons to be out of service. Over the fall last year 20 21 there were several upgrades to the CLEC systems that didn't occur to the BellSouth systems that took the 22 CLEC systems out of service for periods of eight, 10 23 or 12 hours. Okay. Scheduled, yes. But hours not 24 || 25 available, also, yes. Reflected in the measurement?

(Indicating) You know, there -- if BellSouth 1 No. systems were up those 10 hours and mine were down, 2 they had more availability for that 10-hour period of 3 time than I did. 4 COMMISSIONER DEASON: And so you're saying 5 that you have information that shows they're 6 discriminatory in choosing which system to --7 MR. BRADBURY: No, I don't have it. 8 COMMISSIONER DEASON: Oh. You --9 MR. BRADBURY: Without the hours, I don't 10 know what's happening. 11 COMMISSIONER DEASON: Oh. So you're saying 12 that the percentage --13 14 MR. BRADBURY: It's the --COMMISSIONER DEASON: -- the percent 15 availability, you're just showing a flaw in the basis 16 of that calculation and what it represents, but you 17 don't have any information to show the actual 18 19 availability of hours to --20 MR. BRADBURY: No, I do not. COMMISSIONER DEASON: -- to show that 21 22 there's something discriminatory. 23 MR. BRADBURY: I do not. 24 COMMISSIONER DEASON: Okay. MR. BRADBURY: Okay. Over the years 25

BellSouth has developed a number of interfaces for 1 CLECs to use. Many of them don't provide the CLECs 2 with the same ordering capabilities that BellSouth 3 4 enjovs. What happens when BellSouth elects not to 5 provide CLECs with the same capabilities, then it's 6 got -- then it has to provide those capabilities using 7 people, through the intervention of human people. 8 There are a large number of issues that come 9 out of the integration situation, and we'll try to 10 discuss some of those as we go along. 11 And there are several available interfaces 12 for ordering. We've talked about several of them 13 already today; LENS, which is human to machine, 14 nonintegratable. 15 EDI-PC. It is EDI, but it is also, like 16 LENS, not integratable to the back -- BellSouth's 17 back -- to our back office system on the CLEC side. 18 EDI mainframe is. Has some limitations. Where it has 19 20 the limitations BellSouth puts a person to fill that 21 gap. 22 TAG API, again, from the data that's available, it really isn't in commercial operation. 23 Two separate interfaces that, with proper 24 documentation, a CLEC should be able to integrate, but 25

II	
1	as you saw in the Telcordia demonstration yesterday,
2	they haven't done it yet. I'm not sure, you know, if
3	Telcordia, one of the world's greatest software
4	developers, hasn't done it yet, where the other CLECs
5	might be. It's just just a question.
6	Sharon.
7	Again, only mechanized, partially
8	mechanized, four complex services. From the data, I
9	don't see any actual mechanization of unbundled
10	element ordering. Okay.
11	Go on to the next one, Sharon.
12	Editing is a big difference between the
13	system that we have available for our use compared to
14	BellSouth. The RNS and DOE systems both have
15	extensive editing capabilities. This allows BellSouth
16	to have some very high flow-through rates. These are
17	the March numbers; 96% for residence and 83% for
18	business.
19	COMMISSIONER CLARK: Can we go back for a
20	second to the slide previous to this?
21	MR. BRADBURY: Yes, ma'am.
22	COMMISSIONER CLARK: Is it your view that
23	BellSouth has fully mechanized their ordering process
24	for those systems? I had understood that theirs
25	wasn't either.
l	

FLORIDA PUBLIC SERVICE COMMISSION

MR. BRADBURY: Yes, ma'am. I have a
 different opinion of BellSouth's mechanization
 capability, and I've got a slide later where I'll talk
 to that.

#### COMMISSIONER CLARK: Okay.

5

Okay. If I'm a CLEC using MR. BRADBURY: 6 LENS -- and this is a proprietary interface -- and 7 BellSouth provides all of the editing that's available 8 on that interface; comes out there. Yet in March, the 9 LENS interface didn't detect almost 14,000 orders 10 which contained errors. It allowed a CLEC to think it 11 had submitted a perfectly good order, and it was 18% 12 of the LENS orders are that way. 13

14 COMMISSIONER JOHNSON: Could you explain
15 that CLECs using LENS ordering must rely upon
16 BellSouth to incorporate an on-line edit capabilities
17 because LENS is a proprietary interface -- so what
18 actually happens? Tell me the physical--

19MR. BRADBURY:If I'm working with LENS, I20work with LENS and I place an order in LENS --

21 COMMISSIONER JOHNSON: So you're on your -22 MR. BRADBURY: I'm on this computer. Okay.
23 And it's connected to BellSouth. Okay. I formulate
24 my order. I submit it. I tell LENS to send that
25 order. LENS, the terminal I'm working with, accepts

that order as being valid according to the edits that 1 BellSouth has put forth to edit the "inputer's" work. 2 It goes on into BellSouth's system and hits 3 those LEO and LESOG editors in BellSouth who say, 4 there's something wrong with your order. Well, 5 that -- because BellSouth is providing the LENS front 6 end, it ought to have the same editing capability as 7 the parallel system in BellSouth RNS. 8 RNS is a 96% flow-through system, because 9 the edits that are applied to RNS won't allow that 10 person to release an order that won't flow through the 11 FUEL and SOLAR editors before it goes to SOCS. But 12 here they've provided a very similar interface to the 13 CLECs that doesn't provide that same level of editing 14 15 to the input personnel. And the CLEC can do nothing about that. 16 17 COMMISSIONER JOHNSON: So --MR. BRADBURY: And 72% -- excuse me -- in 18 March, 81% of electronic orders submitted by CLECs 19 were submitted using LENS. 20 21 COMMISSIONER JOHNSON: So how does a CLEC 22 find out that there was an error, and what happens when there's a mistake, or --23 24 MR. BRADBURY: They receive a reject message for the order that LENS accepted, sometime down the 25

FLORIDA PUBLIC SERVICE COMMISSION

1 road. **COMMISSIONER JOHNSON:** Then what happens? Ι 2 mean, how do they rectify --3 MR. BRADBURY: Then they go back into LENS 4 and correct that order according to the instructions 5 that they received in the reject message. 6 COMMISSIONER JACOBS: And it won't know --7 they won't know if that correction was adequate until 8 it goes back to LESOG. 9 MR. BRADBURY: Repeats the cycle; that's 10 11 correct. COMMISSIONER JOHNSON: And what kind of time 12 are you -- does that take how much time? 13 14 MR. BRADBURY: I have some data on reject notification times coming up in about two slides. 15 16 COMMISSIONER JOHNSON: Okay. MR. BRADBURY: But, again, so for LENS as --17 you know, BellSouth is really responsible for 18 providing the front-end edits that are being used by 19 the CLECs; and it's clear that those are not edits of 20 the same quality that are available to BellSouth's 21 reps using RNS. 22 For EDI mainframe -- and, again, I'm -- the 23 best I know, AT&T is still the only regular user of 24 EDI mainframe, and that's what -- I'm responsible for 25

those edit capabilities, but I'm dependent on 1 receiving accurate business rules, edit rules and 2 interface specifications to make that work. 3 So, you know, there's a dependency there 4 that it is my job to take that information that I 5 receive from BellSouth and put it into my front-end 6 7 systems. Okay. 8 EDI-PC --COMMISSIONER JOHNSON: Is that a problem --9 I mean, you state that there are --10 MR. BRADBURY: There are problems with 11 business rules, edit rules, and interface 12 specifications, but I wasn't prepared to bring those 13 problems here to this. I just --14 15 COMMISSIONER JOHNSON: I just -- I mean, it 16 just strikes me that given the nature of how this is set up, I don't know how -- what else could be done 17 about that. 18 19 To the extent that -- BellSouth, they do provide you with the business rules, edits, and 20 whatever interface specifications --21 22 MR. BRADBURY: There is --23 **COMMISSIONER JOHNSON:** -- as they're developed, right? 24 || 25 MR. BRADBURY: There is information provided

i	
1	by BellSouth. The quality of it, we have an ongoing
2	dialogue with them as to whether it's adequate or not.
3	COMMISSIONER JOHNSON: Okay.
4	MR. BRADBURY: Okay. EDI-PC users, though,
5	different from EDI mainframe users, are again
6	dependent on what BellSouth told their third-party
7	vendor to put into the system to do edits. Okay.
8	And, again, from the flow-through reports, you see in
9	March that about 19% of orders came from EDI. Again,
10	based on my knowledge of whose mainframe and whose PC,
11	I would say most of that is coming from PC based
12	COMMISSIONER JOHNSON: But what
13	MR. BRADBURY: and they're dependent upon
14	BellSouth.
15	COMMISSIONER JOHNSON: What do you how
16	I'm assuming that the way you're stating this is
17	you're stating it as if it's a bad thing, like the
18	last one there that the EDI-PC that they're
19	dependent that BellSouth has to direct the EDI-PC
20	vendor to incorporate edit capabilities; but I'm not
21	seeing I'm not having a problem with that.
22	Why is that problematic? I mean, it's their
23	system, you know, that
24	MR. BRADBURY: The only problem is in doing
25	that, the edit capability that they provide through
	1

that interface and their third-party vendor should be 1 equal to the edit capability they provide to 2 themselves, and I'm just saying based on the data, 3 4 that does not appear to be true. Oh. So you're going COMMISSIONER JOHNSON: 5 to the -- I see what you're -- okay. It's not a 6 process; it's whether or not they're the same or --7 MR. BRADBURY: That's right. 8 9 **COMMISSIONER JOHNSON:** -- if there's parity. MR. BRADBURY: Right. 10 COMMISSIONER JACOBS: On the business rule 11 12 edits, when you enter into the arrangement, do you 13 get -- yesterday there was mention of this huge manual. You get that, and what you're saying is that 14 15 that's not adequate? MR. BRADBURY: We continue to find 16 inaccuracies, omissions, and contradictory information 17 within that documentation. We have an ongoing 18 dialogue with BellSouth about that both individually, 19 AT&T to BellSouth, and often industry players to 20 BellSouth. 21 COMMISSIONER JACOBS: Okay. 22 I have a question 23 COMMISSIONER DEASON: about LENS. BellSouth does not utilize LENS, correct? 24 25 MR. BRADBURY: Correct.

FLORIDA PUBLIC SERVICE COMMISSION

COMMISSIONER DEASON: Okay. So what do you 1 compare -- when you're using LENS, what do you compare 2 to what BellSouth uses to see if they're as comparable 3 as far as editing capabilities? 4 5 MR. BRADBURY: It's used in virtually the same fashion as BellSouth's RNS system. The 6 architecture is the -- is virtually identical. And I 7 could go forward to a slide and show you. 8 9 COMMISSIONER DEASON: If you're going to get 10 to it eventually, that's --MR. BRADBURY: It's several slides back, but 11 I will get there and show, you know -- and show you --12 COMMISSIONER DEASON: That's fine. 13 MR. BRADBURY: -- how they're the same, very 14 similar. And you would, therefore, expect similar, 15 16 but we're not seeing that. COMMISSIONER DEASON: So you're just saying 17 18 that the tools you're using don't have the 19 capabilities that the representatives in BellSouth 20 were using --21 MR. BRADBURY: Yeah. 22 COMMISSIONER DEASON: Is that your bottom line? 23 24 MR. BRADBURY: Yeah. And in the particular case of LENS, BellSouth is providing that tool to the 25

FLORIDA PUBLIC SERVICE COMMISSION

You know, they're -- you know, they put that 1 CLECs. one out there themselves, and yet it doesn't have the 2 same capabilities to edit a service rep's work. It's 3 a big -- to me that's a big gap. Okay. 4 What happens when these edits fail? If they 5 fail to detect an error, we use -- CLECs are 6 experiencing very long delays in receiving the 7 rejection notices. 8 This is the data for March. (Indicating) 9 These are orders that were submitted electronically, 10 encountered an error. How long on average did it take 11 the CLECs to know about that error? For resale 12 residence, it was 56 hours and 34 minutes; business, 13 22 hours and 43 minutes, and for a UNE order, 77 hours 14 and 56 minutes. 15 COMMISSIONER DEASON: Can you give us a feel 16 of what type of errors occur? Is it incorrect 17 information in a field that won't be accepted, or some 18 verification that didn't take place that should have 19 taken place before the order -- I mean, what type 20 errors result in these rejects? 21 MR. BRADBURY: I don't have -- there's a 22 very nice letter out from BellSouth right now that 23 I'll make -- that lists the top 20 -- or 12 and how a 24 CLEC might go about solving those, and I'll make that 25

1 letter available to you.

2	COMMISSIONER DEASON: Okay. I guess then my
3	next question is, has AT&T attempted to determine what
4	are causing these rejects and put some type of a on
5	the front end before you actually submit the order, do
6	some type of editing yourself.
7	MR. BRADBURY: Okay. Here again I need to
8	split things up. In the case of LENS, I'm not using
9	that. Okay. And if I were using it, there's no
10	capability to do what you said.
11	EDI, I am analyzing the errors that come
12	back to me comparing that to the documentation that I
13	have from BellSouth about what I should be putting in
14	and having this dialogue. Your documentation says, do
15	this; I did it; it failed. Or I didn't follow your
16	we're trying to find a I didn't follow your
17	documentation, so I'm at fault. We are doing that
18	discussion day in and out, because as an EDI mainframe
19	user, I am responsible for putting my front-end edits
20	in.
21	UNIDENTIFIED SPEAKER: (Inaudible comment
22	away from microphone.)
23	MR. BRADBURY: Yeah. This is again, this
24	is CLEC aggregate data, not AT&T-specific data.
25	Thank you, Sharon.

One of the reasons that we have such long 1 delays in receiving the fact that our orders were --2 the CLECs' orders were incorrect appears to be that 3 BellSouth manually processes nearly one-third of all 4 the error notices that it sends back to CLECs for 5 orders that CLECs submitted electronically, but there 6 is human intervention in the reject process. 7 Sharon, we'll go on to the next slide. 8 COMMISSIONER DEASON: Well, let me ask: So 9 I mean, what's the significance? Because what? 10 11 there's --MR. BRADBURY: Because --12 **COMMISSIONER DEASON:** -- human intervention? 13 14 Some people will say, well, I'm getting personalized attention and that's great. Other people would say, 15 is it because of the delay. Are you indicating that 16 you think they're doing it that way just to increase 17 the delay time? 18 MR. BRADBURY: No, I don't think that's --19 don't think that's their intention is --20 COMMISSIONER DEASON: Well, what's the 21 22 point, I guess --The impact of having -- not 23 MR. BRADBURY: having a fully automated reject process is that it 24 lengthens the time. Okay. 25

BellSouth originally had no automation in 1 the process. I mean, this is an improvement. There 2 was originally no automation in that reject process, 3 but at this point in time it still involves, you know, 4 5 human intervention in 32% of the orders. COMMISSIONER DEASON: But the bottom line, 6 though, is that an --7 MR. BRADBURY: At the time BellSouth --8 COMMISSIONER DEASON: -- error is an error, 9 and it's your input that is the error. 10 MR. BRADBURY: But once I've committed that 11 error, BellSouth has an obligation to tell me about it 12 in a timely fashion, and that's not happening. Okay. 13 BellSouth tells itself about its errors in a timely 14 fashion. 15 COMMISSIONER JACOBS: What are those 16 numbers? 17 MR. BRADBURY: When BellSouth -- if you 18 submit an order from RNS that is subsequently edited 19 in SOCS that we saw yesterday -- Mr. Stacy talked 20 about yesterday -- that drops out to a centralized 21 group that takes care of those, and that happens no 22 longer than 24 hours on a batch process, but they 23 actually have a 30-minute -- they have a 30-minute 24 capability to do that. 25

FLORIDA PUBLIC SERVICE COMMISSION

11	
1	Similarly on business orders, the
2	explanations that I've had from BellSouth in the past
3	is the business rep makes an error in a DOE order; DOE
4	accepts, sends to SOCS, and SOCS edits and finds that
5	error. That error is returned to the center that sent
6	it in, and it's returned the last I saw it was
7	returned on a nightly batch is a message called the
8	Questionable Activities Report, or something of that
9	nature. And so the worst thing that happens is
10	overnight.
11	These definitely
12	COMMISSIONER JOHNSON: And in BellSouth's
13	MR. BRADBURY: (inaudible overlap)
14	longer than overnight.
15	COMMISSIONER JOHNSON: In BellSouth's own
16	internal systems, the process is electronic as opposed
17	to manual? You noted here that the reason why you
18	believe the delays for
19	MR. BRADBURY: I really
20	COMMISSIONER JOHNSON: the CLECs is
21	because it's manual and not electronic. Is it
22	different for BellSouth?
23	MR. BRADBURY: The reject notice drops out
24	to them. I'm not sure on where it goes, to their
25	trouble error and error correction center, but it

# FLORIDA PUBLIC SERVICE COMMISSION

drops out at worst on a printer in a reasonable period 1 2 of time. Again, they have -- I think there's a 3 30-minute objective that they had in the RNS side to 4 correct errors when they thought -- that when an error 5 occurs, SOCS drops out to this center, they have 30 6 7 minutes to correct it. COMMISSIONER JOHNSON: For themselves or 8 9 for --MR. BRADBURY: For themselves. This is 10 11 their process. 12 COMMISSIONER JOHNSON: Okay. And they -you have something that shows that they meet their 13 objectives? 14 15 MR. BRADBURY: No. BellSouth does not 16 provide any information on reject notice intervals for 17 BellSouth. They claim they don't have a parity -they don't have an analog in their process to this 18 19 measurement. 20 I disagree with them. The FCC disagrees 21 with them. 22 COMMISSIONER JOHNSON: So there is no --23 MR. BRADBURY: So there is no comparative data available. 24 25 COMMISSIONER JOHNSON: To the extent that

FLORIDA PUBLIC SERVICE COMMISSION

there was and it demonstrated the same amounts of 1 time, then, that at least you'd have your parity. 2 MR. BRADBURY: If it demonstrated that. 3 But, again, from the information they've told us about 4 their process, it's a 30-minute process on the 5 residence side, is of the objective side. 6 This is a little longer view of the same 7 (Indicating) You see March data on the far 8 thing. right. This gives you a feel for the trend. It 9 doesn't look like an improving trend. 10 On the bottom you see the percent of 11 mechanically or electronically submitted orders that 12 are rejected and BellSouth has to inject themselves in 13 that process with a human intervention. You see the 14 last three months, 34, 29, 32%, so still a very high 15 level of manual intervention in rejecting electronic 16 17 orders. 18 CHAIRMAN GARCIA: I guess we asked this 19 before. Maybe you'll -- what is the errors that are 20 being made? I mean, you said BellSouth gave you a letter. 21 MR. BRADBURY: There's a letter about the 22 CLECs' most common errors, yeah; and I'm -- you know, 23 be glad to give it -- and in each of the flow-through 24 25 reports they do -- they also -- there's an error

FLORIDA PUBLIC SERVICE COMMISSION

analysis summary that lists those, too. I don't have 1 them memorized, but we can make that information 2 available to you. 3 CHAIRMAN GARCIA: But obviously it's not in 4 your interest to get more errors, is it, because -- I 5 6 mean --MR. BRADBURY: Absolutely not; no. My --7 CHAIRMAN GARCIA: Let me understand --8 MR. BRADBURY: -- my interest is to submit 9 clean orders --10 CHAIRMAN GARCIA: Obviously -- (Inaudible 11 12 overlap) --MR. BRADBURY: -- everybody -- (Inaudible 13 overlap) --14 15 CHAIRMAN GARCIA: But you're giving us the problems here. I mean -- (Inaudible overlap) --16 17 (Court reporter asked for clarification.) 18 MR. BRADBURY: Pardon me. I'm sorry. 19 CHAIRMAN GARCIA: I'm sorry. I assume that it's not in your interest to get rejects. That said, 20 21 is there any retraining of your people when they get these, or is it you just have ongoing problems? Is it 22 that, you know, the 10 most made errors you try to 23 internalize them into your input people, and then you 24 get another 10 problems? Is that what's happening? 25

1 Are there corrections going on on your side, or you're 2 just simply just downloading and this is the result of 3 that?

MR. BRADBURY: Yes, sir. We don't ignore errors, you know. If we -- we look at the errors that we receive and we find that we have a training problem, process problem, on our side, we're going to fix that. Absolutely. And you'll see over --

9 CHAIRMAN GARCIA: All right. But -- and I 10 know computers make mistakes, but they don't screw up 11 one in every four as a typical thing. It's usually a 12 small percentage. What's going on here then is, I 13 guess, the question.

What is it that you need that -- I know you want quicker return time when something is wrong, but what exactly is it that's going on wrong?

MR. BRADBURY: Again, two things as -- say,
an EDI user or a TAG user in the future needs good
documentation of the business rules so that they can
do their front-end edit work to avoid errors.

A LENS or a EDI-PC user needs BellSouth to have provided in those interfaces the same level of edits that are available to the BellSouth service rep. That's the need.

25

CHAIRMAN GARCIA: I'm sorry. I just don't

#### FLORIDA PUBLIC SERVICE COMMISSION

understand. I don't --1 MR. BRADBURY: I'm sorry I'm not --2 The point that I COMMISSIONER JACOBS: 3 think -- what I heard you say earlier is that the 4 business rules are essentially a moving landscape, or 5 at least not cast in stone. 6 MR. BRADBURY: They are not cast in stone. 7 They, you know --8 CHAIRMAN GARCIA: So every morning you get 9 up and BellSouth has a different set of rules? 10 MR. BRADBURY: It's not that bad. Don't --11 CHAIRMAN GARCIA: All right. But every --12 MR. BRADBURY: -- want to imply that. 13 CHAIRMAN GARCIA: I mean --14 MR. BRADBURY: Don't want to imply that. 15 CHAIRMAN GARCIA: -- obviously you were down 16 19% and we ended up at 31%. Three months of 17 experience should have made it better, not worse, 18 19 so --20 MR. BRADBURY: No. This -- that percentage is where BellSouth is intervening in telling us. 21 22 CHAIRMAN GARCIA: Either one. I mean, go up to the top. You --23 MR. BRADBURY: That's the interval it takes 24 them to tell us. Let me find the --25

FLORIDA PUBLIC SERVICE COMMISSION

CHAIRMAN GARCIA: Okay. So explain to me 1 what exactly is the problem. Because clearly your 2 interest is to get as many orders through without a 3 4 problem --MR. BRADBURY: Correct. 5 CHAIRMAN GARCIA: Especially because it 6 takes you so long to get it back; so you want to get 7 it right on the front end. 8 9 Now, you said that BellSouth gave you a memo listing the top 10 problems. But what exactly is it 10 that you do with that information? You retrain your 11 people and what happens is that then BellSouth changes 12 the rules on the front end so then you end up at the 13 same place? 14 15 MR. BRADBURY: I wouldn't want to couch No. it that way. 16 17 CHAIRMAN GARCIA: No. But you're just giving us a problem, and I just want to understand --18 19 MR. BRADBURY: Okay. We need to -- the problem has several parts to it. Depending on which 20 interface you're using, the problem was different. 21 22 For AT&T, the problem is an ongoing documentation of 23 business rules. And we have an ongoing dialogue with BellSouth about when we find that they've told us one 24 25 thing and we do it and it doesn't work. We do that.

# FLORIDA PUBLIC SERVICE COMMISSION

We also take the errors that come back to us 1 when we have violated the rule, our error. We retrain 2 our people about those violations, absolutely, because 3 we want as few errors as possible. 4 CHAIRMAN GARCIA: Correct. 5 COMMISSIONER JACOBS: Is it the case that 6 the original statement of business rules was correct 7 and it wasn't interpreted properly in the system, or 8 is it the case that the original statement was 9 incorrect and the system is doing it correctly? Which 10 do you find most prominent? 11 MR. BRADBURY: Early on we found the second 12 one. The business rules that we provided were 13 incorrect. Okay. 14 What we're finding now is as changes to 15 those business rules come out, a certain number of 16 17 those are also incorrect, and so if that new business 18 rule has come out and we've built to it and, in fact, 19 BellSouth implemented it differently, then our initial orders for that business rule will fall out. 20 21 We'll call them up and say, what did we do 22 wrong or what did you do wrong; and we'll figure out 23 which one is right. So it's an ongoing thing. 24 UNIDENTIFIED SPEAKER: (Inaudible comment away from microphone.) 25

COMMISSIONER JOHNSON: You need to turn your 1 mike on. 2 UNIDENTIFIED SPEAKER: (Further comment away 3 from microphone.) 4 MR. BRADBURY: As Sharon said, a third 5 impact there is the lack -- or has been the lack of 6 integration between preordering and ordering where you 7 have to rekey a lot of stuff, and so you get those 8 kinds of errors, which aren't business rule errors. 9 Those are just human types of errors. 10 If you have preordering and ordering 11 integration and you don't have to inject on our end, 12 or any other CLEC's end, the human and translating 13 information or rekeying information, you reduce those 14 types of errors. 15 COMMISSIONER JACOBS: And you --16 MR. BRADBURY: And that's -- TAG should go a 17 long way to reducing that type of an error. 18 19 COMMISSIONER JACOBS: And the way it does 20 that, it makes that a machine-to-machine interface between preordering and ordering? 21 MR. BRADBURY: Correct. 22 23 COMMISSIONER JACOBS: You don't do that now? 24 MR. BRADBURY: We do that now. I'm not sure of the extent, you know. 25

COMMISSIONER JACOBS: In the other CLECs. 1 In the others. MR. BRADBURY: 2 COMMISSIONER JOHNSON: EDI mainframe allows 3 that? 4 MR. BRADBURY: Correct. 5 It COMMISSIONER JOHNSON: I need Page 24. 6 didn't come in my packet. But looking at Page 24 7 there, the first section is just how long it takes 8 before you receive a reject notice? 9 MR. BRADBURY: That's correct. 10 COMMISSIONER JOHNSON: And you think that 11 January was an anomaly as it relates it UNEs? 12 MR. BRADBURY: It would certainly look like 13 it, but I would say that December was probably an 14 15 anomaly, too. COMMISSIONER JOHNSON: Yeah. I was going to 16 ask you, because I thought you had raised that --17 MR. BRADBURY: Average the two. I don't 18 19 know. 20 COMMISSIONER JOHNSON: And on the bottom 21 there, help me understand what this represents. 22 Percentage --23 MR. BRADBURY: This is the percentage of errors that occur on the electronically submitted 24 order where BellSouth has to intervene in rejecting 25

FLORIDA PUBLIC SERVICE COMMISSION

that order and send us back the intervention -- the 1 mechanized orders there -- mechanized -- two 2 components of mechanized reject. 3 If I send an order that has a fatal error in 4 it, that comes back to be mechanized. If I send an 5 order over that has what BellSouth calls an 6 autoclarification error, that comes back mechanized. 7 The bottom one is if I send an order over 8 that was good enough not to be fatal, good enough not 9 to encounter an autocorrection so it's gone through 10 LEO and into LESOG but had something wrong with it 11 that LESOG or SOCS found, BellSouth has to intervene 12 in that order. 13 14 CHAIRMAN GARCIA: Is that intervention back to you, or they intervene and just keep it going on 15 the system? 16 17 MR. BRADBURY: This is back to me. CHAIRMAN GARCIA: Even though it wasn't a 18 fatal --19 MR. BRADBURY: It wasn't a fatal. It wasn't 20 automatically identified to be returned to me. It had 21 to be sent to a BellSouth person to determine that it 22 wasn't -- to determine that it was my error. 23 CHAIRMAN GARCIA: So what you're -- let's 24 25 look at March, then; okay. So you're telling -- that

FLORIDA PUBLIC SERVICE COMMISSION

31% of ALEC your orders were returned because --1 MR. BRADBURY: Again, that --2 CHAIRMAN GARCIA: -- there wasn't a fatal 3 flaw? Or is that cumulative of all your flaws? 4 Because you just said this went through LEO, LESOG, or 5 SOCS or whatever, and then at the back end someone 6 catches it and has to send it. 31% of them that 7 8 happened. MR. BRADBURY: That's correct. 9 CHAIRMAN GARCIA: Okay. And we saw some 10 11 demonstrations where before they ever got there, something around 10, 15% were being stopped on the 12 front end before it ever got to the manual side. 13 14 MR. BRADBURY: Right. CHAIRMAN GARCIA: So 15% percent of --15 MR. BRADBURY: That's the mechanized line-up 16 17 there. CHAIRMAN GARCIA: Okay. So that's a total, 18 19 then. 20 MR. BRADBURY: Okay. The total in March would have been 19,000-some CLEC errors spread between 21 fatals, all those, and CLEC errors found after 22 BellSouth intervened --23 CHAIRMAN GARCIA: So that's a total number. 24 25 MR. BRADBURY: Yeah. Okay. So that's the

FLORIDA PUBLIC SERVICE COMMISSION

interval, how long it take them to tell us we made an
 error and how many that they had to intervene in to be
 able to tell us that.

Going on to the next page, Sharon.

5 There are other impacts of BellSouth's 6 manual intervention of the ordering process besides 7 their intervention in the rejection process.

4

8 BellSouth manually rekeys a relatively high 9 percentage of the EDI and LENS orders that we send 10 over in the SOCS; actually, DOE here in the Florida 11 region.

For example, in March there were some almost 12 20,000 orders that were valid orders the CLECs 13 submitted, but BellSouth had to intervene into the --14 put them back into the DOE machine. It is composed of 15 the M orders that Mr. Stacy talked about yesterday, 16 orders that we send over electronically but they 17 process manually, or orders that we send over 18 19 electronically they encounter some sort an of error in 20 BellSouth's process and they drop out for manual 21 treatment. So there were -- to get those 20,000 22 orders processed, BellSouth had to intervene into that 23 process.

Now, I can't look into BellSouth's SOCS machine and see my order that's pending. Okay. So

BellSouth has taken these 20,000 orders and retyped 1 There is some probability that they made an them. 2 error when they did that, but I can't see that because 3 I can't look into my pending order in SOCS. 4 So the first time I know that BellSouth made 5 an error on these 20,000 -- or the CLEC industry --6 again, this is all CLEC data -- knows about that is 7 when my customer tells me, hey, I didn't get what you 8 said I was going to get. And so that's a customer 9 "non-satisfier". 10 COMMISSIONER DEASON: Why does BellSouth 11 12 find it necessary to do this rekeying? 13 MR. BRADBURY: Again, there are two things -- two causes of that; those types of orders 14 15 that I'm allowed to send electronically, but they do not allow to flow through; okay, and then those 16 orders --17 18 COMMISSIONER DEASON: Okay. Now, why don't 19 they allow it to flow through? There is an error? 20 MR. BRADBURY: No, there's no error on this 21 order. It's just they've not provided a process that 22 allows that order to flow through without human 23 intervention. 24 COMMISSIONER DEASON: And they process it 25 the same way for themselves internally, similar

orders? 1 MR. BRADBURY: Internally, my contention is 2 that they have submitted -- they would submit that 3 same order themselves and it would flow through to 4 SOCS without human intervention. 5 COMMISSIONER JACOBS: You listed those back 6 here somewhere, right? 7 COMMISSIONER CLARK: What types of orders 8 are they? 9 These are the M orders that MR. BRADBURY: 10 Mr. Stacy talked about yesterday. And the definition 11 of M orders when it first came out -- and Mr. Stacy 12 started talking about this -- last year at the FCC was 13 complex orders only and for EDI only. 14 That definition has recently been expanded 15 to include 12 different categories of orders that 16 17 crosses both the EDI ordering interface and the LENS 18 ordering interface. I haven't memorized that list, 19 but I can -- I could get it and read it to you, but I -- you know, things like an account that's in 20 It's an account where BellSouth has denied 21 denial. service to the customer but the CLEC is going to pick 22 23 it up. That account falls out. That's a new expansion of the definition in recent weeks. 24 25 COMMISSIONER JACOBS: And also that no UNE

FLORIDA PUBLIC SERVICE COMMISSION

order can go through without human intervention? 1 MR. BRADBURY: It is my belief that no UNE 2 orders currently flow through BellSouth's system. 3 COMMISSIONER JACOBS: What's the main 4 purpose, or what's the main point at which 5 intervention is required? 6 MR. BRADBURY: The main point? 7 COMMISSIONER JACOBS: Where in the process 8 is the most common place where human --9 MR. BRADBURY: I really don't have that 10 information. The data that we get from -- that's 11 12 available from BellSouth in public forums, I can't tell. 13 14 COMMISSIONER DEASON: So what are you 15 asking? You want either BellSouth to do it electronically, or do you want the ability to review 16 17 what they've done manually? MR. BRADBURY: I need both. Okay. 18 To the 19 extent that BellSouth must rekey an order, if there are valid conditions under which BellSouth must 20 21 intervene in my order to put it in, I need the capability when they've done that then to look into 22 23 SOCS and see if they put it in correctly. 24 If there's no valid reason for them to have 25 intervened in that order at all, I need them to

provide the process that allows that order to flow
through.

Okay. Flow-through: Now, successful 3 flow-through of an electronically submitted order is 4 truly a win/win/win situation for BellSouth, for the 5 CLEC community, and for the customer. It reduces 6 BellSouth's and the CLECs' expenses for people, for 7 programing, everything else. It reduces the errors 8 that occur on orders, and it provides more timely 9 services to the customers. So successful flow-through 10 is absolutely in everybody's best interest. 11 Flow-through is being measured today. What 12 it's designed -- should be designed to measure is what 13 did not flow through the system for reasons that 14 BellSouth caused. 15 16 There's a definition in two orders here in the south, in Georgia and Louisiana, that accomplishes 17 that objective. Those two definitions also comport 18 with the FCC's definition of flow-through in its 19 notice of proposed rulemaking last April, but 20 21 BellSouth currently doesn't measure in conformance with those definitions. 22 23 All right. COMMISSIONER DEASON: Did you hear Mr. Stacy 24 25 say that he thinks he's gotten the FCC to agree with

FLORIDA PUBLIC SERVICE COMMISSION

1 his calculation?

2 MR. BRADBURY: Yes, sir. And I have --3 again, strangely enough, I have a different opinion of 4 what the FCC has done there.

5 They have not agreed with what Mr. Stacy is 6 doing. They have said if BellSouth follows certain 7 steps, that -- and can prove certain things, their 8 process might be acceptable. BellSouth has yet to do 9 those things, to do that.

10 So it's not -- the FCC hasn't agreed. 11 They've -- and, again, it's a common carrier really 12 that's issued this letter. It's a very good letter. 13 We'll talk about it later. But it's not an agreement 14 with BellSouth.

It's a view that if BellSouth does certain 15 things, that that would be satisfactory. BellSouth 16 hasn't done those yet. But this is the definition 17 that exists in the Georgia order. The Louisiana order 18 is similar to it. And here what we're talking about 19 is that percent flow-through service requests measures 20 21 the percentage submitted electronically that utilized BellSouth's OSS without manual human intervention. 22

Then there's a calculation, total number of valid service requests that flow through to BellSouth divided by the total number of valid service requests

1 delivered to the BellSouth OSS.

The one exclusion is rejected service requests. A true CLEC error is excluded from this process.

Now, the next four slides I'm going to skip 5 over. Okay. They are an example of how BellSouth 6 calculates this -- how it should be calculated and how 7 BellSouth is calculating it using, you know, the old 8 100 minus 10 minus 10. I'm going to do the same thing 9 with some real data in some other slides, so these are 10 simply here for referral later. It's a little easier 11 process in working with the real data. 12

13 What are we talking about? We're talking about how many of what went where, when, and why did 14 15 they go there. You know, in order to evaluate flow-through or, for that manner -- matter, any other 16 17 measurement process -- measurement of a process, you've got to be able to count and account for all of 18 19 the things that go into the process and all of the things that go out of the process. 20

So here's a funnel -- and I'm going to ask you to write, if you've got a pen or pencil with you. I wasn't as clever as Mr. Stacy and able to do this in advance.

25

At the top there we see the universe of CLEC

LSRs coming in. They can come in for resale, for UNE, 1 for interconnection. They could be for business or 2 residence. They could be for many types of 3 activities, and they could come in over a number of 4 interfaces. 5 If you put a number, say, in the upper left 6 of that -- those of you who have got the big ones can 7 probably do this -- 198,537. We're going to do a 8 little math exercise. That's the number of CLEC LSRs 9 submitted to BellSouth in March, both manually and 10 11 || electronically. Okay. The next thing to do is put right in here 12 the number 108,467. That's the number of those orders 13 that came in up here, that came into BellSouth as 14 manual requests. They received those either as fax or 15 a box of mail or whatever. 16 CHAIRMAN GARCIA: Repeat -- which one of 17 those? 18 MR. BRADBURY: The 108,467 arrived manually; 19 fax, mail. So that's 55% of all the local service 20 21 requests that BellSouth received. And, again, this is February data. Did I say March earlier? I thought I 22 did. That's February data. 23 So the center core of this funnel is all 24 manual. That's the last we know in terms of volumes 25

about manual order processing in BellSouth. In fact,
 BellSouth does not even report that number on any
 regular basis in any jurisdiction.

Now, we see percentages throughout the rest
of the performance reports about what percentage of
manual orders received rejections and so forth, but we
have no volume data to go with it, and in most months
we have no volume data at all. It's just through
another source that this number for February became
available to us.

If you've got room down this side here, the first number to put there is 90,070. That's the number of electronically submitted LSRs that were received in February. Obviously that's 45% of the grand total.

Now, below that we can put in two more numbers. And I'll tell you the first number will be the number of EDI LSRs, which is 25,189; and that was 28% of the electronic orders. That's 28% of the 90,000.

The next number down would be the LENS orders; 64,881, and that's 72% of the electronic orders that were received in February. Okay. So we know what came in now.

25

The objective of flow-through reporting

FLORIDA PUBLIC SERVICE COMMISSION

would be applied to what you wrote over here, the electronic orders, and you would try to then determine how many of those -- ultimately what you want to know, how many of those resulted in a service order over here. That's the objective is to get as many of those to be service orders as you possibly can.

Many different things are going to happen to 7 them, as you go through that process. Several of them 8 will drop out for manual processing as an M order 9 10 Mr. Stacy talked about yesterday. Several of them will drop out even before that and come in over here. 11 (Indicating) Several of them will drop out for being 12 fatal errors; drop out for having -- being an 13 autoclarified error. 14

15 Others will have gotten through LEO and into LESOG and will either drop out as a CLEC error, which 16 17 is returned to the CLEC to correct, or a BellSouth error, which they correct. So for BellSouth errors, 18 19 they correct and put them back into the system. They 20 also put back into the system the M orders. Okay. 21 Again, the objective in any performance 22 measurement, you should be able to continue down 23 through the process and determine what happened to every one of those orders. We're not going to do that 24

25 math, though.

#### FLORIDA PUBLIC SERVICE COMMISSION

Sharon, can we go on to the next chart. 1 COMMISSIONER JOHNSON: But for the manual, 2 the 108,000 for March, you're saying that there is --3 MR. BRADBURY: That's for February. I'm 4 5 sorry. COMMISSIONER JOHNSON: Oh. This is 6 7 February? 8 MR. BRADBURY: Yes, February. COMMISSIONER JOHNSON: There is no --9 MR. BRADBURY: There's no other volume data 10 11 about that. COMMISSIONER JOHNSON: There's no other 12 what? 13 MR. BRADBURY: No other volume -- I can't 14 tell you what happened. In other words, I don't know 15 how many of those became issued service orders, how 16 17 many of those were returned to CLECs as errors. I don't know how many. I know some percentages of 18 things, but BellSouth never on a regular basis 19 20 produces that number anywhere. COMMISSIONER JOHNSON: And they've been 21 required to do that --22 MR. BRADBURY: No. 23 COMMISSIONER JOHNSON: -- by the FCC, any --24 MR. BRADBURY: No. They haven't -- there's 25

no requirement that I'm aware of for them to do that. 1 However, not doing it glosses over the tremendous 2 amount of manual effort BellSouth must perform, 3 because not all of those -- we'll see another chart 4 later -- not all of those things are manual because of 5 the CLEC's choice to do manual. 6 COMMISSIONER JOHNSON: Well, wait a minute 7 then. Of the manual requests, you said the 108,000, 8 that they were actually the faxes, the mail, they came 9 in as manual requests. 10 MR. BRADBURY: Correct. 11 COMMISSIONER JOHNSON: In those there's no 12 flow-through accountability information. But of the 13 90,000 electronic submissions, some of which became 14 15 M class or whatever you --MR. BRADBURY: Right. 16 COMMISSIONER JOHNSON: -- now those, there 17 would be the information for what happened in a 18 flow-through process, wouldn't there? 19 MR. BRADBURY: Actually, we know how many of 20 them there were, but we don't know how many of them 21 subsequently turned into orders. 22 BellSouth -- it falls out, BellSouth 23 manually processes it. But I actually do not now how 24 many of those subsequently turn into orders. That's a 25

missing "goes-out-of" in this process. 1 Likewise -- Sharon, just go back to the 2 slide. 3 So I really don't know how many of those 4 turn into orders from the data that's being presented 5 6 now. (Indicating) CHAIRMAN GARCIA: How much longer do you 7 have? 8 MR. BRADBURY: Probably a half hour. 9 10 CHAIRMAN GARCIA: All right. Let's take a break right here and we'll reconvene in 20 minutes. 11 (Brief recess.) 12 13 CHAIRMAN GARCIA: We're going to get back 14 started. I'm going to ask that those who are set to 15 speak after AT&T -- we're going to take a lunch after 16 this presentation is over. If you could look at your 17 presentation. There's been substantial questions 18 asked. I think it's been brutally exhaustive, the 19 information we've gotten. So if you have a 20 presentation, try to cut it down because according to 21 our schedule we'll be here till 6:30, and I just don't 22 think that we're going to get to where we need to get 23 to if we last that long, at least in terms of learning 24 25 what is going on.

So if you could, please, limit it. Let's 1 not cover the same territory that's been covered here 2 with our questions, and that'll put us back on 3 schedule. And also, I leave the hearing in the 4 5 capable hands of Commissioner Deason. 6 COMMISSIONER DEASON: Okay. We shall 7 proceed. 8 MR. BRADBURY: All right. Thank you, sir. You all hear me in the back okay? Sharon, we'll go on 9 10 to the next slide. 11 In the Louisiana II order the FCC did find certain deficiencies with BellSouth's flow-through 12 reporting. Three of the four still exist today. 13 BellSouth does now disaggregate its data by EDI and 14 LENS and TAG. However, we are still -- there still is 15 16 as dispute about the treatment of "M" orders, a dispute about the treatment of error allocation, and 17 UNE data is still aggregated. 18 19 Sharon. 20 This is the impact of the exclusion of "M" 21 orders. These are valid CLEC orders. There is 22 nothing wrong with them when they're submitted. 23 Nothing really has changed since the LA II order. The 24 exclusion over states flow through so it makes it 25 appear that the win/win/win situation for BellSouth,

the CLECs and our customers is greater than it really 1 2 is. You can see over time that the numbers of 3 these orders has been increasing and has been 4 increasing relative to the total orders. The 5 percentages have been increasing. 6 7 Sharon. On the error allocation dispute, these are 8 those -- yeah -- "E"s that came out and BellSouth has 9 to manually intervene to determine whether it's a 10 BellSouth program that caused the error or a CLEC 11 input error. 12 There was a change in methodology that 13 occurred in November. Prior to November, the 14 September and October data is fairly representative. 15 CLECs were being allocated 60% to 75% of those E-type 16 17 errors. With the change in reporting methodology that occurred in November, you can see that that has 18 The first month it was 11%. The consistent 19 changed. 20 number seems to be something in the mid 30's these days. Big, big change. 21 The other thing that is interesting in the 22 data here is the increase in the number of BellSouth 23 errors that has occurred in the last two months. 24 25 10,000, almost 11,000. 9,500.

1 Okay. What does this mean at the reporting 2 level? There is a number that I refer to as a basic 3 flow-through number. This is how you measure the 4 win/win/win. This is where you can determine how 5 efficient this process is being for BellSouth, for the 6 CLECs and for our customers.

7 Okay. It's the number of service orders 8 that are issued, divided by the number of local 9 service requests that came in electronically. It 10 doesn't assign blame for why that happened or why 11 there's a difference between the two. It just says, 12 "Hey, in March only 61% of the LSRs that came in the 13 front door resulted in an issued service order."

BellSouth applies "M" order exclusion and CLEC error exclusion and reports for that same month in March the number 85.2%. It's my belief that if they reported it in conformance to the orders guiding them, that it would be 73.5%.

BellSouth's performance for RNS, the
residential orders, in March was 96.5%. For business
flow-through was 83.2%. On waited average, and I used
a 90/10, based on BellSouth's testimony in the past
that that's about the relationship of orders between
the two systems, their overall flow-through of their
orders is in the 95% range.

Up at top, regardless of which one you pick, 1 my basic flow-through, what their reporting and what I 2 think they should be reporting, you can see in 1999 a 3 definite downward trend in all three. It doesn't 4 matter which one you pick to look at right now, CLEC 5 6 flow-through is going down this year. Not up. Not 7 improving. 8 COMMISSIONER JOHNSON: What do you think the 9 cause of that might be? 10 MR. BRADBURY: Well, jump back one slide. 11 One of them is the increased number of 12 BellSouth programming errors. We've gone here in February and March up to, you know, 11,000, 10,000, 13 14 BellSouth calls, errors. Used to be as low, back in September, as 2,000. Again, the allocation process 15 16 that's been used here in the past is questionable, so 17 the past allocation and even the present allocation is subject to question, but that would be a cause. 18 COMMISSIONER JOHNSON: What would be the 19 20 types of errors that BellSouth may be making? 21 MR. BRADBURY: I can't tell you. They don't 22 tell us. 23 COMMISSIONER JOHNSON: Oh, they just report 24 that there were errors on their part? 25 MR. BRADBURY: Yes, ma'am.

FLORIDA PUBLIC SERVICE COMMISSION

COMMISSIONER DEASON: Is this an increase in
 the number of errors or just that they're being
 reported more correctly?

MR. BRADBURY: Again, I really can't answer that question because of the problems that have existed in BellSouth's error allocation. If I take their reporting at face value, it's an increase in errors on their part.

9 Okay. Let's go forward and let's take a
10 different view, forgetting formulas. This is what I
11 like to call the whole experience. And again, now I'm
12 working with March data. Before I was working with
13 February data when I had you writing in numbers. Now
14 I've got some numbers you don't have to write.

We've taken that one data point we were 15 given about March and made an assumption -- about 16 17 February and made an assumption that, you know, that same relationship about 54%, 55% would hold in March, 18 so, we grossed up here. And so we see that there were 19 20 some 200,000 orders that came in the front door at BellSouth from the CLECs. About 110,000 of them 21 dropped out for -- didn't drop out, came in the door 22 manually. These came in, you know, on the hand cart 23 or in the mail or over the fax. 24

25

Some of those came that way simply because

the CLEC has made a business decision to do that. 1 Okay. No fault on BellSouth's part. Some of those, 2 though, came in the door because there's no other way 3 to get that order to BellSouth. You know, you can't 4 submit it electronically so you have to send it 5 manually. We do not know what the relationship 6 between those two is. 7 Next, we see dealing in electronic orders, 8

9 that there were 4,500 rejects, fatal rejects. I would 10 like to point out that 4,200 of those were made by one 11 company.

Next, we see that there were 10,251
electronic orders submitted, fell out from manual
processing because of BellSouth's decisions not to
provide flow-through for those orders.

Next, we see that CLECs made errors that resulted in auto clarification, almost 9,000 times. 86 -- 8,700 times. So, here CLECs possibly have inadequate front-end or they're using an interface that BellSouth is providing that has an inadequate front-end editor.

I'd like to point out here that of those -that's what? 8,700? There is one company responsible for 3,000 of them.

25

COMMISSIONER JOHNSON: Of which ones? I'm

1 sorry. MR. BRADBURY: Of the auto clarifies. One 2 company is responsible for 3,000. It happens to be 3 the same company that was responsible for the 4,200 4 fatal rejects. 5 **COMMISSIONER JOHNSON:** Which company was 6 7 that? I don't know. Let's just MR. BRADBURY: 8 9 call it company 128-B. COMMISSIONER JOHNSON: Do you have 10 anything -- was there a unique problem or something? 11 MR. BRADBURY: I don't know because I don't 12 know who the company is. 13 COMMISSIONER JOHNSON: Oh, I got you. 14 MR. BRADBURY: All I can tell you is they're 15 submitting orders via EDI and since the volume and so 16 forth, and I know the EDI main frame players, it's 17 EDI-PC that they're using to submit them. 18 **COMMISSIONER JOHNSON:** Okay. 19 MR. BRADBURY: Next, we see that BellSouth 20 made 9,500 errors in processing these. These are 21 BellSouth bugs in their programming. And that there 22 were 6,200 CLEC errors. Now, we've -- you know, 23 we've -- this is where we've gotten to the point where 24 they have to divide the two. We've gone through LEO 25

and we're in LESOG and there were 6,200 of those. 1 And again, I'd like to point out that there 2 was one company that was responsible for 5,800 of 3 And guess what? It's that same company that 4 them. was responsible for the 3,000 auto clarifies and the 5 4,000 fatal rejects. 6 So we have one company who, in the month of 7 March, skewed the data completely out of -- that one 8 company had 13,000 errors out of the 19,400 CLEC 9 errors that were made in that month. So, just a fact 10 of point. 11 But like I said, that's the big 12 Okav. 200,000 in, 55,000 out electronically. picture. 13 Don't know how many out manually. The data is not 14 available. 15 Okay. Like to skip over the next two 16 slides. 17 COMMISSIONER DEASON: Let me ask you a 18 question, and to an extent, I guess, it's kind of 19 facetious. It seems to me we've got too many errors. 20 Those are errors being made on both sides. Should we 21 have some type of an incentive plan that for every 22 error you make, you pay BellSouth so much; for every 23 error they make, they pay you, so that everybody has 24 got a good incentive to not make errors? 25

MR. BRADBURY:I'd really like not to answer2that question.

3	COMMISSIONER DEASON: Well, I mean, how do
4	we solve the problem? I mean, we're caught in the
5	middle as regulators. You're sitting over there
6	saying, "We got all these errors. Things aren't
7	working right." BellSouth is saying, "Things work
8	really well and we're doing well, but we make as many
9	errors for ourselves as we make for them." And we sit
10	here and we try to determine where the truth is, and
11	we really don't have the tools to know ourselves. And
12	maybe we need a mechanism out there to try to minimize
13	the errors and usually what gets people attention more
14	than anything else is when you start talking about
15	dollars.
16	Have you thought about it as a policy
17	question as to how do we go about minimizing the
18	errors, because no one wins when there is errors. And
19	not only does customers get unhappy, but it cost the
20	system more money, too, to reprocess all of these
21	things.
22	MR. BRADBURY: No, I have not thought about

22 MR. BRADBURY: No, I have not thought about 23 it as a policy matter. I think about error correct as 24 an operational and a cost product -- cost of doing 25 business all the time. That's why I wanted to point

FLORIDA PUBLIC SERVICE COMMISSION

out, in this particular month, there is one company 1 who's responsible for --2 COMMISSIONER DEASON: Well, maybe somebody 3 needs to get their attention. 4 MR. BRADBURY: It's not my company. You 5 6 know --COMMISSIONER DEASON: Maybe somebody needs 7 to get their attention some way. Maybe they are --8 they're imposing unreasonable burdens and cost on the 9 system which is not -- which is not helping anyone, 10 and I don't know who they are either. 11 MR. BRADBURY: I don't know they're identity 12 either. 13 COMMISSIONER CLARK: Well, let me ask the 14 question. 15 MR. BRADBURY: Again, this is CLEC aggregate 16 nine state data. Please understand that. 17 COMMISSIONER CLARK: It seems to me one of 18 the things -- I don't disagree that you might want to 19 do something like that, but one of the things to get 20 right is that the performance standards that BellSouth 21 or whoever needs to be held to, should only be those 22 over which they have control. The fact that bad data 23 was put in by the CLEC should not impact their 24 performance standards at all. 25

## FLORIDA PUBLIC SERVICE COMMISSION

MR. BRADBURY: And the calculation, as in
the Georgia and Louisiana orders and proposed by the
FCC, if a CLEC is, indeed, making errors that are CLEC
caused errors, those do not penalize BellSouth's
performance. The formula works that way. Okay.
BellSouth is not penalized for a true CLEC -- the only
dispute here --

8 COMMISSIONER CLARK: Is what is a true CLEC. 9 MR. BRADBURY: And it's not -- this is not a 10 dispute at the fatal reject level or at the auto 11 clarify level. It's at the "E" level where that error 12 could have been either BellSouth's or the CLEC's. 13 That's where the dispute on those errors is.

So on that pipe, there were 9,500 BellSouth errors and 6,200 CLEC errors, per BellSouth's allocation of those errors. Don't know if that allocation is right or wrong. We have questions based on prior data that it may not be correct. It's never been audited.

All right. Like to skip over the next two and go to one more chart that talks about flow-through.

MS. NORRIS: Jay, could I just add one
thing? This is Sharon Norris. I work with Jay on OSS
issues for AT&T. And in response to the question,

FLORIDA PUBLIC SERVICE COMMISSION

what can we as regulators do, there really -- and
 everything that's been said by you is absolutely
 accurate.

My position or my thoughts about -- in 4 responding to your question, is as a regulator you can 5 ensure hopefully through some methods that all the 6 things that the CLECs need to minimize errors on the 7 front end are done; that integration is available; 8 that business rules are adequate; that the change 9 control process or changes in business rules is 10 managed well. And if you don't have the tools to do 11 that -- as you said, you may not have those -- some 12 other states have undertaken having an independent 13 third party to go in and take the business rules and 14 documents and systems of an RBOC back and see if they 15 can use them. And it sort of eliminates this he 16 said/she said stuff that kind of gets you in the 17 So that's one alternative that you have. middle. 18 And then, absent that, then you're right. 19

Then it gets to auditing the performance measures and saying, "Let's have somebody look at this, all of this allocation process, and see if it's an equitable one." Those are two things that I would offer as regulators that you have as tools at your disposal to resolve this problem.

FLORIDA PUBLIC SERVICE COMMISSION

MR. BRADBURY: 41. Okay. It was postulated
 yesterday that BellSouth has no flow-through for its
 business orders. I'm a picture oriented person. This
 picture is my explanation of yes, they do, and that
 Mr. Stacy and BellSouth have been accurately reporting
 it for the last 18 months.

On the BellSouth side here we see a service 7 representative who could be inputting those into DOE 8 and SONGS or RNS. I saved myself one block. Only one 9 service rep. But in both cases they are inputting 10 into a system that applies edits to an order and then 11 sends the order to SOCS, which also applies edits, 12 which turns the order -- service request into a 13 service order. 14

Similarly on the CLEC side, I have a service
representative typing into my system, sends it across
to BellSouth where it also receives some more edits,
goes to SOCS where it's edited finally, resulting in a
service order. There is no difference in my mind.

BellSouth has been accurately reporting its business flow-through for the past 18 months, and that their argument that they don't have flow-through for business is bogus. And that closes my section on flow-through.

25

Like to talk very briefly about provisioning

I	
1	and the FCC said a couple of things about
2	provisioning.
3	Sharon, we can go on to the next slide.
4	There are two measurements that they talked
5	about, relationships to intervals. They wanted to
6	look at the long interval, which is from the receipt
7	of when they got a valid order until the CLEC received
8	a completion notice. And then they had, within that
9	interval, from the receipt of a valid order until the
10	service was actually provided.
11	It's very difficult to calculate these
12	intervals from the data BellSouth is providing. For
13	the long run, BellSouth has not been providing
14	reliable data on completion notice intervals, and I
15	will show you why I say that in a minute.
16	The way the data is presented is
17	disaggregated differently for FOC and installation
18	internals so it's hard to add those together to get
19	that one. And BellSouth, just like they provided no
20	comparison (telephonic interference) rejects
21	are we still alive for rejects, also provides no
22	comparative data for FOCs, claiming they have no

similar process. 23

25

Sharon, the next slide. 24

This is the completion notice interval data

# FLORIDA PUBLIC SERVICE COMMISSION

that has been provided. (Telephonic interference.) 1 UNIDENTIFIED SPEAKER: The thing needs to be 2 taken off the --3 MR. BRADBURY: Where do I --4 UNIDENTIFIED SPEAKER: Saturn mission was 5 successful. (Laughter.) 6 MR. BRADBURY: Okay. Are we back on? All 7 right. This is the data that's been provided recently 8 regarding completion notice intervals. In November 9 BellSouth sent out a blank table. In December there 10 11 was a percent distribution but no intervals. January 12 we saw some intervals for residence in business. We 13 see them again in February. Picked up a UNE design 14 interval. And we see intervals for residence, 15 business, resale of UNE and design. I really don't think it's taking BellSouth 16 29 days to provide us with completion notices in the 17 CLEC world. I think their data here is still 18 unreliable. 19 20 Firm order confirmation. We talked about this and you've been following along and you really 21 22 know that firm order confirmation belongs back in 23 ordering. The reason it's here is because I was trying to do what the FCC said to do with provisioning 24 intervals and added to it. 25

See some marked improvements recently in the 1 residential mechanized -- "M" stands for mechanized. 2 "NM" for nonmechanized -- January, February and March 3 intervals for that type of an order returning to us. 4

5 This is where I have submitted what is a clean order and it gets FOCed mechanically. Looks 6 pretty good. I don't think I'd say the same about the 7 rest of them in the mechanized world. Business 30 8 hours, UNEs 71 hours, reading from the March. No data 9 10 for loops with LNP, which is a very common transaction, which indicates to me that none of those 11 are flowing through. 12

And the other -- kind of a real interesting 13 14 change there between February and March. Like to see 15 more data to see what is going to happen with that 16 one.

What period of time 17 COMMISSIONER DEASON: are you measuring? From the time that you submit an 18 19 order which has no errors, goes through the system, it takes this long to get an FOC or does this measure the 20 amount of time that it takes to correct the errors? 21 22 MR. BRADBURY: No. This is just a clean order to FOC. 23 24 COMMISSIONER DEASON: Clean order? 25

MR. BRADBURY:

FLORIDA PUBLIC SERVICE COMMISSION

Right.

1 COMMISSIONER DEASON: Okay. MR. BRADBURY: Okay. Like to turn next to 2 3 maintenance and repair, and walk through some slides. This is -- it's very important when you talk about 4 maintenance and repair to start from the CLEC's 5 perspective. It's the CLEC who's dealing with the 6 7 customer. Okay. So we have a system at AT&T that's 8 set up and we can talk to our databases that contain 9 10 our customer service information, our problem information, our trouble report information. If it's 11 12 a facility-based customer we'd have that kind of information also. 13 These days, I can be talking to a customer 14 about his long distance, his wireless, his local, his 15 Internet, his video, so I've got about six different 16 things that I could be talking to my customer about, 17 18 so I have to have my own database. So my process is 19 set up to meet the needs of the CLEC, AT&T, first. 20 Assumes that I can go out and get what I need from other providers. 21 Next slide is my current "standard" 22 23 maintenance process with BellSouth. It's a telephonic 24 process. We talked earlier, we had used the EBI interface for a little bit. I make a phone call to 25

BellSouth's wholesale repair center where they have
 access to the WFA system and the TAFI system and they
 take my trouble report using the pre-agreed to script
 that we have between us and that's how I'm doing
 business with them today.

6

Next slide please, Sharon.

We looked at using TAFI back in 1997 and you 7 see what it did to my process then, is I had to split 8 my process if I was going to be using TAFI. If I had 9 a trouble report that I could use TAFI on, I'd use it. 10 But if I didn't, I'd go use a telephone. So I now had 11 two processes to accomplish the same thing. And I 12 now, since I'm doing data entry into TAFI, I now have 13 two data entries and I can make errors between the 14 two. So what I put into TAFI may not match what I put 15 16 into my internal database.

There was sufficient additional cost related to this operation that the business unit said, "I don't want to do this," because we were looking at that point at EBI coming up. Within six months time we'd have had a machine-to-machine capability. So we tested it and evaluated it and then did not continue to use it.

This is the electronic bonding to ECTA interface that we did use. And very, very briefly,

because we left the resale market, we didn't have the critical mass of customers to make this an efficient operation.

I would like to point out that while we call this a machine-to-machine operation, it's only machine-to-machine right here. Everything falls out to the BellSouth person, and Mr. Stacy said that yesterday, for handling. We knew about this as early as April of '96.

And Sharon, we can go on to the next slide. 10 And what we have been asking for since April 11 of '96 is a configuration that would look like this 12 where we would have a machine-to-machine capability 13 between ourselves and BellSouth that would allow us 14 the access to TAFI and WFA and only reach a person as 15 a final default. That request has been on the table 16 for three years. 17

18

All right. Sharon.

Last July, BellSouth submitted its third application to the FCC. In conclusion, I'd like to just present to you the overview of BellSouth -- of the FCC and BellSouth's application.

Couple of key things. The FCC says here they filed a second application for Louisiana without fully addressing the problems we had identified in

previous applications. Particularly evident in
 Operations Support Systems.

Again, BellSouth had a map before they came back there the second time. Actually, this was their third time because they did it in South Carolina before. The argument that they don't know what the FCC wants is a little hallow. Clearly reflected in the FCC's order here.

The next three pages outline more of the 9 FCC's conclusions specifically about preorder. They 10 started out, again, restating their overall 11 conclusions about failures to provide 12 nondiscriminatory access. Also in the unbundled 13 network world, and highlighted preordering and 14 flow-through that we spent a lot of time talking 15 about. 16

17 Stated the evaluation standards. The same 18 ones that Bill talked about yesterday. Substantially 19 same time and manner; meaningful opportunity to 20 compete; and that their preference is for performance 21 measurement of actual commercial usage.

In terms of preordering, they were pretty
harsh about the lack of integration in preordering.
Next slide.

25

Ordering has spent considerable amount of

1	
1	time on flow-through, as we have here today. They
2	were very, very concerned about manual processing.
3	And I think we talked today about how much manual
4	processing still exists within BellSouth's systems,
5	both for orders that are submitted manually and for
6	orders that are submitted electronically and require
7	subsequent manual handling.
8	Next slide.
9	Provisioning, and they talked about the
10	installation intervals that are unable to compute
11	easily.
12	Maintenance this is (telephonic
13	interference.)
14	Talked about the differences in the
15	functionality available between TAFI and the
16	electronic (telephonic interference) interface.
17	Had some comments on billing. Those two
18	comments probably I would say have probably been
19	pretty well addressed by BellSouth at this time. They
20	highlighted several other of the check list items that
21	were impacted by OSS.
22	What's remaining? Most of the issues that
23	the FCC addressed in LA II are still unaddressed today
24	in an efficient manner.
25	There is a very interesting letter that

Mr. Stacy referred to yesterday from the Chief of the 1 Common Carrier Bureau, February 10th. Talks about 2 3 five issues; flow-through, TAFI integration, performance measurements, complex ordering and 4 5 third-party testing. 6 And third-party testing, again, they state 7 their preference for commercial usage, but where there 8 is none or it's inconclusive, he said/she said, some 9 form of testing is necessary to demonstrate that the 10 BOC's OSS is operationally ready. 11 Wasn't particularly enamored with internal 12 testing or carrier-to-carrier testing, but that a 13 third-party test would serve as a reasonable safe 14 harbor. 15 It's a very good letter. We'll make this available to you if you don't have it already. And if 16 17 you have other questions, I'm through. 18 COMMISSIONER JACOBS: I'm sorry. That 19 letter is from the FCC Common Carrier in response to 20 what? 21 MR. BRADBURY: Actually BellSouth and the 22 FCC had a dialog in mid December and this documents 23 that dialog. It presents their viewpoints -- the Common Carrier's viewpoints on these five issues. 24 It 25 is not an approval of anything that BellSouth is

1 doing. It is a series of suggestions. There are 2 things here that BellSouth needs to do. As they say, 3 they can't make a conclusive determination until they 4 receive the next -- (telephonic interference) --5 application.

6 COMMISSIONER DEASON: Okav. Thank you. Let 7 me ask, at this point, has MCI reviewed their presentation to see whether it can be shortened any? 8 9 We're still before the noon hour. I would suggest we 10 go ahead with MCI. If we have to break during the middle of it, fine, but perhaps we can go ahead and 11 12 conclude MCI and try to get back on schedule.

MS. KEATING: If I could just point out one thing before we move on. I think we're getting the phone situation worked out so that if people want to call in for the rest of the session they shouldn't have a problem.

I just want to remind people, though, not to put the line on hold because we get the music that is on your hold line, but to also put us on mute or to make sure that your office is quiet.

MR. GREEN: Good morning everybody. Mr. and Mrs. Commissioner. My name is Bryan Green and I am with MCI and today I'm going to present to you a brief overview. I'm not going to retread ground that was

1 already trenched today and/or yesterday.

2	But what I will go through is just real
3	briefly where MCI is with their development with
4	BellSouth. Talk to you a bit about some of the
5	results of an operational trial that MCI commenced in
6	the beginning of or late 1998, early 1999, as well as
7	talk about where the issues reside with the
8	development process going forward and some of the
9	things that the Commission may be able to do to help
10	expedite that to make sure that the operational
11	interfaces are up and operational to support market
12	entry.
13	With that, let me dive right into sort of
14	the objective of our development efforts with
15	BellSouth. Obviously, it's to get machine-to-machine
16	interfaces up and operational, such that MCI has the
17	means by which to submit orders effectively through
18	the BellSouth system such that we enhance the
19	efficiency of the MCI systems through mechanized
20	interfaces, as well as gives us the opportunity to
21	meaningfully compete.
22	The end goal of that is for our customers

that will be transitioning to MCI to experience the same level of service that they're used to getting from BellSouth themselves. At a minimum that same

level of service. And without the means of having
 operationally efficient interfaces, we won't
 successfully be able to meet that goal.

Before I go to the next slide, because I 4 5 don't have a slide prepared to share with you where 6 MCI is with the development of BellSouth, I'm going to 7 break this up into the five silos of OSS, which would 8 be preordering, ordering -- and I'm going to lump 9 provisioning in with ordering. We'll talk about maintenance and we'll talk about where we are with 10 11 billing.

Billing is less of an issue for us right now because of the number of customers we have operational and the amount of information we've been able to derive, but that will probably be the next horizon where their issues will reside because of lack of functionality in that arena as well.

Specifically from a preordering vantage point, as Mr. Stacy mentioned yesterday, MCI elected to place on hold or to delay the development of our interactive agent requests using the TCPIP protocol based on SSL3 architecture. Bill Stacy defined that yesterday as the interactive agent.

24Our decision to place that on hold was25principally decided because of the fact that we don't

### FLORIDA PUBLIC SERVICE COMMISSION

have a UNE-P offering in key states in the BellSouth 1 2 region. Preorder, obviously, is one of those mechanisms that has a much greater impact on our 3 4 residential business customer -- on our residential customers than it does on our business customers. 5 6 Therefore, until we have a UNE-P offering in key 7 BellSouth states, we will not be moving forward with 8 the development of preordering.

9 Now, MCI is committed to that development 10 and we're in the process of developing that 11 architecture today in the New York Bell Atlantic region where we do have a UNE-P offering and we are 12 13 actively in the market with a commercial service 14 delivery method that allows us to be successful in 15 that market. So we will be moving forward expeditiously with BellSouth as soon as we get that 16 17 capability for UNE-P.

18 From the ordering vantage point, where we 19 are is we are still in the midst of the developing, 20 tweaking, adding the necessary functionality for EDI 21 Version 7 with BellSouth. Specifically designed for 22 the delivery of orders associated with local number 23 portability and stand-alone loops and loops plus 24 number portability. That development effort has been 25 underway. I have some slides to talk about the

1	process we've been through thus far and some of the
2	issues that are still outstanding with that interface.
3	Provisioning is lumped into that, and
4	specifically, when I talk about provisioning with OSS,
5	I am specifically talking about the electronic
6	notifications that are necessary. Those would be the
7	service jeopardies. Those would be the completion
8	notices. Those would be the rejects. Those would be
9	the notifications that are necessary that feed the MCI
10	back-end system such that those systems know what the
11	status of orders are in BellSouth land as well as
12	allows us to kick off other processes downstream for
13	us. Particularly, for example, with the completion
14	notice. Our systems would kick off information to our
15	maintenance centers as well as to our billing centers
16	that we now have ownership of that customer.
17	From the maintenance vantage point, we never
18	elected to use the TAFI system that BellSouth offered
19	early in this whole OSS development cycle, but have
20	developed with BellSouth the electronic the ECTA
21	interface for maintenance with BellSouth based upon
22	the current industry standard.
23	There's an issue or so that exists with that
24	interface but we have been up and operational with
25	that interface for I would upwards of about six

FLORIDA PUBLIC SERVICE COMMISSION

months or longer. And then from billing, we're using
 the same billing systems and functionality that AT&T
 talked about earlier today so I won't go into those.

Okay. Let me take you through some of the 4 development that we have gone through with BellSouth 5 just to sort of get you up to speed of where we are, 6 and this is going to be from a historical perspective, 7 but it's going to have some bearing on some of the 8 things that we've been able to uncover as we move 9 through trying get this interface up and operational 10 and rolled out into a production environment. 11

12 Specifically, we began the development of this interface about 15 months ago with BellSouth. 13 As a matter of fact, we began this development in January 14 of 1998 where we began to review the documentation 15 provided by Bell and work in teams with BellSouth to 16 go through that documentation, business rules, EDI 17 specifications and the like. And that process took 18 about three to four months to get through all of that 19 information. 20

Beginning in April through June, we began to submit what we define and what the industry defined as EDI simulation orders. The significance of that is that we, on the MCI side of the interface, would submit orders to BellSouth that we would generate

#### FLORIDA PUBLIC SERVICE COMMISSION

manually, send them through the Bell interface that was up and operational at this time, such that before we got to the coding of those actual EDI maps as is defined in the technical realm, we would be able to identify any errors in the documentations, any errors that were in the operation of the system.

7 And through that process, we were able to 8 identify at least 14 problems either with the 9 documentation that was provided by Bell that we spent 10 the last three months reviewing and/or problems with 11 the operation of the interface.

12 Specifically, there was three things that we 13 uncovered. One was the inconsistency of the 14 documentation and the operation of the interface. The 15 other was the fact that there was no test environment 16 for local number portability orders.

What that means is, that when we did submit local number portability orders as part of the EDI stimulation testing, they were manually reviewed by BellSouth's reps. In other words, we pull them -they pull them off, look at them, say, "yeah, this stuff looks right based upon the business rules, so we think they'll be okay."

And then we also uncovered the fact that Bell could not transmit to us electronic firm order

1	confirmations or completion notices throughout this
2	trial. We worked with Bell to try to get those issues
3	resolved and there were promises made as a result of
4	those findings that they would get those issues fixed.
5	We completed end-to-end testing in the
6	August time frame with Bell, but that end-to-end
7	testing, again, did not include local number
8	portability end-to-end testing because there was no
9	test environment to available to do that in.
10	Subsequently, in September of 1998 we
11	accepted the interface from BellSouth with the
12	promised enhancements that Bell committed to us that
13	would be necessary in order for us to use this
14	interface in a production environment.
15	Two things specifically that we needed Bell
16	to provide to us were partial migrations. Partial
17	migrations is necessary because when you initially
18	approach a customer who has been doing business with
19	BellSouth for an extended period of time, nine times
20	out of ten they're going to be reluctant to migrate
21	their entire service over to you. So the way that
22	you're going to prove to the customer that you can
23	provide the level of service necessary for them is to
24	take a portion of that service.
25	In order to do that we needed to send what's

been defined in the industry as partial migrations 1 over to BellSouth. BellSouth systems, at the time 2 that we received and accepted the interface, did not 3 support partial migrations. That was one 4 functionality that was absolutely critical to us. 5 The other one that was absolutely critical 6 was the fact that the Bell system did not support 7 electronic notifications for local number portability. 8 And specifically, it did not provide rejects and 9 clarifications electronically for LNP orders, nor did 10 they provide at the time automated maintenance -- or 11 I'm sorry -- missed appointment jeopardies and/or 12 13 service jeopardies. So those were the commitments that Bell 14 committed to enhance the system. 15 The target date for partial migrations was 16 March 28th of 1998. So, you can see that that was 17 about six months after we had accepted the interface 18 that they got that functionality provided. And to 19 date, that functionality still hasn't been thoroughly 20 tested, but just recently they said that that 21 functionality was available. 22 As well as electronic rejects for -- or 23 electronic rejects and clarifications also came on 24 line per Bell 3-28. We're still, to date, waiting for 25

service jeopardies for local number portability 1 2 orders. COMMISSIONER JOHNSON: I'm sorry. You said 3 the electronic rejects that that is -- that they did 4 5 implement? MR. GREEN: Bell shared with us that that 6 7 functionality had been integrated into the interface as of 3-28. We haven't had the opportunity to test 8 through that, but that's a commitment that Bell has 9 10 said they've met. 11 COMMISSIONER JOHNSON: So both the partial 12 migration and electronic rejects --13 MR. GREEN: Electronic rejects, both on 14 3-28. COMMISSIONER JOHNSON: They just haven't 15 been tested? 16 17 MR. GREEN: Right. By MCI or any other provider in the industry. 18 **COMMISSIONER JOHNSON:** But service jeopardy 19 20 for number portability, that is not in place? 21 MR. GREEN: Still is not available. Their commitment date for that functionality is May of 1999. 22 So, this month. That is suppose to be there. Okay. 23 24 From there, let me walk you through the operational trial information that we did with 25

FLORIDA PUBLIC SERVICE COMMISSION

i	
1	BellSouth, and let me share with you just to make sure
2	everybody is grounded on operational trial.
3	This operational trial was conducted by MCI
4	as an effort to prove that the interface actually
5	operated as prescribed. In other words, even though
6	we knew that we were missing some functionality, we
7	wanted to confirm that the functionality that Bell
8	said was there, that we believed was there, was
9	actually there and could be used in a production
10	environment.
11	We used real orders. And when I say real
12	orders, they were test orders from MCI. They were
13	real to BellSouth. They had no idea that we were
14	sending these orders as part of an operational trial.
15	They believed that these were real production orders
16	and were to treat these as real production orders.
17	MCI used their own facilities to submit
18	these orders. What we submitted as part of the test
19	was stand-alone loop orders, local number portability
20	with loop orders. These were full migrations of
21	customers' accounts.
22	And subsequently, throughout the trial as we
23	got these lines installed, obviously we needed to
24	disconnect these lines as well. So subsequent or
25	after January, we began to issue some disconnects and

through the process we had some cancellation orders
 that we submitted as well.

Okay. The operational trial identified a number of problems that were existent with the BellSouth interface. Primarily, there was a lack of flow-through. In other words, there were -- all of the orders that we submitted through the Bell interface were handled manually; had some means or at some point were handled with manual intervention.

We received from BellSouth invalid rejects. Now, let me define an invalid reject. MCI submits an order that is based upon the business rules provided to us by BellSouth. BellSouth receives that order via the electronic interface, and subsequently sends us back a reject for an error that -- for a problem that is not an error.

17 In other words, they may reject and have rejected the orders for invalid user name. Well, the 18 19 user name on the order was the right user name on the 20 order, but they rejected it in error. Says that a 21 service rep looked at that order, wasn't quite 22 familiar with what the rules should have been and 23 rejected that order back to us, delaying the MCI 24 process and impacting our process as well.

25

Let me talk about what happens when we

### FLORIDA PUBLIC SERVICE COMMISSION

receive manual notifications that we transmit
 electronically.

MCI has built on their back-end systems that 3 interface with the Bell EDI system. So what we are 4 5 looking for when we transmit orders across to BellSouth are electronic notifications back. We are 6 7 looking for those confirmations that they received the 8 orders, that either they are negative or affirmative, what's defined as 997s. We are looking for firm order 9 10 confirmations. We are looking for rejects. We are 11 looking for clarifications. We are looking for 12 completion notices. We are expecting all of that information to come back electronically because our 13 systems are set up such that if we do get it, it 14 triggers some response downstream. 15 16 What happens if I get these things manually

10 what happens if i get these things manually
17 is that now I have to deploy people to go find the
18 order because it comes across fax. What is it? And
19 then go update our systems to allow our service reps
20 to make the necessary changes to the order in order to
21 get those things sent downstream.

And for 15 orders that we sent through this interface between November 1998 and January 1999, that was a horrendous process. Very horrendous process. We also were missing completion

FLORIDA PUBLIC SERVICE COMMISSION

1	notifications. We, on many instances, didn't receive
2	a completion notice whatsoever. And again, a
3	completion notice is important because it allows MCI,
4	No. 1, to know that we should begin billing our
5	customer. No. 1.
6	No. 2, we should expect to begin to receive
7	billing from BellSouth on "XY" date, as well as being
8	able to communicate to the customer that your service
9	is up or it's not up or we have some problem. So,
10	those things are important.
11	Jay spent a lot of time on performance
12	measurements, going through timeliness of
13	notifications. Well, during our trial, our
14	operational trial with BellSouth, we identified the
15	fact that our notifications were very untimely, as
16	well as there was inconsistency in processing of
17	orders, specifically there with the disconnects and
18	the cancellations orders that I will talk about later.
19	I mentioned already that all of the orders
20	that were submitted in November to January that were
21	for loop, loop and LNP were handled at some point
22	during the transaction manually. All of the orders
23	let me reiterate here that we sent through the
24	interface was either defined by Bell as simple,
25	flow-through and/or 100% flow-through.
	I

So we specifically issued orders that we 1 believed should flow through the interface; 2 stand-alone loops, loops plus LNP. And Bill in his 3 documentation yesterday showed that LNP orders flow 4 through as well as loop orders flow through so you 5 would suspect that loop plus LNP orders should flow 6 7 through. COMMISSIONER JACOBS: I'm trying to 8 This morning I think we heard that none of 9 remember. the UNE orders that AT&T sent through were 10 flow-through. There was manual intervention in all of 11 those. Is it -- do the business rules provide for 12 automatic flow through of UNE orders? 13 MR. GREEN: The expectation, when we 14 15 developed our system, was that stand-alone loop orders, which are UNE orders, loop and LNP orders 16 would flow through the interface without human 17 intervention. So the expectation there is, 18 19 absolutely. Of the -- from the lack of flow-through we 20 received 20 rejects on the 15 orders that we submitted 21 through the Bell system. Some of that was -- some of 22 those were valid rejects. Others, and many of those 23 were invalid rejects. Rejects that we should have 24 never received. 25

FLORIDA PUBLIC SERVICE COMMISSION

1 And again, what we also saw was a situation where we received individual rejects for multiple 2 errors on an order. What I mean is that once the 3 order gets sent through the system, Bell's commitment 4 5 to us is that they will send back a reject or 6 clarification identifying all of the errors, not just 7 one. In many instances we got multiple clarification 8 for errors on the same order, which that shouldn't be the case as well. 9

And then again, most of the FOCs that we received were received manually as opposed to electronically which caused that problem in our back-end systems of our service reps having to grab that information and update our system so that we could keep track of it.

16 Now, during this time we were communicating 17 with BellSouth and identifying for them the problems that we were uncovering, so it's not as if we were 18 19 gathering this information to all of a sudden come to a Commission hearing or go to the FCC and say that 20 21 things aren't working the way that they're suppose to. 22 So we began to communicate with BellSouth 23 shortly after we began to see these types of problems.

We identified through -- from the November through
December, 20 issues. Bell responded to our issues in

FLORIDA PUBLIC SERVICE COMMISSION

the January time frame, so it took them about 60 days 1 just to respond back to us with what they believed the 2 issues were. And of the nine problems we 3 identified -- or of the 20, rather, that we identified 4 5 with BellSouth, nine of those were identified as BellSouth training rep issues. 6 7 Let me give you a couple of examples. Multiple clarifications via EDI was identified as a 8 BellSouth service rep training issue. 9 10 Local number loop and number portability missing the firm order confirmation was identified as 11 a BellSouth service rep training issue. 12 13 So there is a number of things in here that 14 if the system was fully automated, supported total 15 flow-through, you would not expect to see a situation 16 where it was a BellSouth service rep training issue for things that shouldn't involve a BellSouth service 17 18 rep. 19 Okay. Next slide, Dee. 20 Of the rejects that we did receive, 60% of 21 them were invalid. And again, invalid reject reasons 22 were they ran the gamete, but the -- I will jump down a slide. 23 24 The primary reasons that Bell rejected our 25 orders in error was the fact that they rejected valid

network channel codes that we put on the order that
 were provided to us by Bell, and the fact that they
 rejected our end user names.

Now, let me explain the end user name
scenario, if you would. When you submit a new
installation order for a loop, you have control over
what that end user name is going to be. MCI, for
these trials, so that we could keep track of them,
were placing end user names of EDI Atlanta-02 on the
order.

Well, the Bell service rep, who is manipulating these orders, was expecting to see a person's name. Therefore, they were rejecting these errors in order -- I mean, they were rejecting these orders in error, which was a problem because we can put any name on that order that we so choice because we are maintaining a relationship with that customer.

Other problems were that three of the invalid rejects we received electronically. Now, that begs a question. You wouldn't expect to receive an invalid reject electronically. Says one of two things.

One is, either the system is programmed incorrectly and kicking you back these errors when it shouldn't; or that they're service reps involved in

#### FLORIDA PUBLIC SERVICE COMMISSION

this process and that they have the ability to
 manipulate the EDI system such that they can send you
 back EDI transactions as opposed to sending them back
 to you via fax, which we believe the latter to be the
 case.

And again, I talked about the fact that we received multiple rejects, and at least on two orders we received multiple invalid rejects. So not only did we receive the first invalid reject, but we received a second invalid reject on that exact same order.

And I'll say this. That for the most part, when we got an invalid reject we did absolutely nothing with the order. We didn't send another order in. We would call BellSouth and tell them that this order should not have been rejected and then subsequently, in at least two instances, we received additional invalid rejects.

18 COMMISSIONER JOHNSON: I think I must be 19 missing a major point here. You are sending these 20 orders over electronically?

21 MR. GREEN: Yes. Via the EDI 7 interface
22 that was turned up in September.

23 COMMISSIONER JOHNSON: And you stated
24 though, that you don't expect to receive the rejects
25 back electronically. Wouldn't you -- when you were

talking about the machine-to-machine interface, if the 1 user name was invalid because you didn't use the right 2 business code, wouldn't you want it to come back 3 electronically and --4 MR. GREEN: There is two points there. 5 First of all, that the system is coded correctly. I 6 7 wouldn't expect to see an invalid reject electronically. Otherwise, that's suggesting to me 8 that the system is not designed correctly. 9 COMMISSIONER JOHNSON: I see what you're 10 saying. I was just thinking -- so, is the fact that 11 it was an invalid --12 MR. GREEN: But I do expect to get rejects 13 electronically. I just don't expect to get those that 14 are invalid electronically. 15 COMMISSIONER JOHNSON: I'm following you. 16 MR. GREEN: Okay. Let me go to completion. 17 COMMISSIONER JACOBS: Excuse me. Do you 18 have the front-end editing on your EDI -- front-end 19 20 gateway on yours, your inputs to EDI? MR. GREEN: Let me make sure I heard the 21 22 question. 23 COMMISSIONER JACOBS: If I recall, earlier this morning AT&T had a -- sort of like a 24 pre-processor, if you will, on their inputs to EDI. 25

1 Do you have a similar process?

MR. GREEN: Absolutely. When we build the 2 interface with BellSouth we take the business rules. 3 And the reason the business rules are so important is 4 it allows us to develop the editing capability on our 5 front end so that if we were inputting information 6 correctly -- in other words, if one of the business 7 rules, for example, said that a Network Channel Code, 8 for example, was all ALFAs or should be five ALFAs, 9 and we go in and we -- our service reps enter the 10 information and they get fat fingers and type it in 11 wrong, and let's say that they put some numerics in 12 13 there and make it eight characters. Well, our system will reject that order back to our service rep because 14 15 it doesn't meet the business rules for BellSouth. So there is a pre-editing function that is included in 16 our front-end systems. 17

Completion notices. 57% of the orders or 8 18 out of 14 did not receive a completion notice. Now, 19 20 you see that there is only 14 there. That's because one of the orders we had to cancel due to some 21 inherent problems and there was a couple of problems. 22 23 One was, MCI had made an error on that order so we had cancelled that one because another order was 24 actually the right one, so we only expected to see 14 25

1 completion notices. Then we only received 8 out of 2 14.

I will say that all of the completion 3 notices, when we began to receive them, came 4 electronically. We did not receive one completion 5 notice manually. One completion notice, however, we 6 7 received five days after we cancelled the order. So, you wouldn't expect to see a completion notice on an 8 order that was cancelled. And I will talk more about 9 some of the issues we found with cancellation orders. 10

And then, again, this is one of those situations where Bell identified this issue as a service rep training issue. So, again, it baffles MCI to understand how it's a service rep issue if these orders are truly flowing through the interface as tallied.

Lack of timely notifications. And I think this correlates fairly well with some of the information that Jay Bradbury of AT&T had up here earlier this morning.

21 Bell's commitment to MCI via our 22 interconnection agreement is that they will provide us 23 with firm order confirmations in four hours; four 24 hours from the time that we submit a clean order to 25 BellSouth. Their rejects are one hour from the time

that they receive the order from MCI, and we will get
 completion notices within one hour of the service
 being completed.

As you can see there from the results of 4 just our 15 orders, Bell didn't meet those objectives. 5 They failed to meet those objectives in every way. 6 7 On average -- and these I will say, in my numbers here, I excluded weekends and holidays. Now, 8 that's to give Bell the benefit of the doubt. One 9 would suspect that the system doesn't care about 10 weekends and holidays, so if I sent an order, that 11 order would at least be processed through the system. 12 It may not be worked by BellSouth representatives if 13 it needed provisioning, but I would expect that the 14 system, if the system was up, would be transmitting 15 the information regardless of if it's Christmas Day or 16 17 Saturday. Okay. So these time frames that you see here do 18 19 not include even those weekends and holidays, so the 20 number would be higher if I did. On average 2.9 days to return a reject. 21 22 4.69 days to return a FOC, and for the completion 23 notices -- I'm sorry -- that I did receive, on average

24 || three days after the order was due to be completed.

I mentioned that we submitted some

25

FLORIDA PUBLIC SERVICE COMMISSION

additional orders, some cancellation orders, some
 disconnect orders, but we also transmitted three
 additional loop orders, two cancellation orders and 14
 disconnects.

Let me talk about the cancellation problems 5 because these may not seem like a big deal and you 6 don't hear much about -- you know, you hear a lot 7 about migrates as-is, migrates as specified, new 8 installs, add, move, changes, but what about 9 cancellations and disconnects? Those things never get 10 discussed. And unfortunately -- well, I guess I'd say 11 unfortunately or fortunately, we stumbled on this. 12 We did not expect these things to be an issue. We 13 expected these things to flow through the system not 14 15 have any problem.

But what we found was that the cancellation 16 orders, when we did send them weren't cancelling the 17 18 original order that we submitted. In other words, I submitted an order to be installed on -- let me pick a 19 date. December 5th. I send a cancellation order in 20 for that order on December 1st. What I get back from 21 BellSouth is a firm order confirmation for that 22 23 original installation order. I don't get a firm order 24 confirmation back on the cancellation order. That 25 costs us some great concern.

FLORIDA PUBLIC SERVICE COMMISSION

I also got those FOCs back late. They 1 didn't come back within the four hour time frame. 2 COMMISSIONER CLARK: Let me ask you to -- go 3 back to what you get is the firm order confirmation 4 for the original ordering. Do you get anything 5 subsequent to that? 6 7 MR. GREEN: Not on those cases. I will say that we -- throughout this trial, sometimes they --8 which is why I call this inconsistency in order 9 processing. Sometimes it was done right. Other times 10 it was not. And for the most part, it was not done 11 correctly. So the answer is, sometimes yes, most 12 13 times, no. The FOCs were consistently late with these 14 15 orders, and in at least one instance, I received a -back to the completion notice I received once when I 16 had cancelled an order. But another time, I received 17 a missed appointment jeopardy when I cancelled an 18 order because we weren't ready to meet them at the 19 20 switch. We were going to turn up the loop, obviously, because we disconnected or cancelled the order. 21 Now, you may not think that it's a big deal 22 if they're not cancelling the orders, but the problem 23 is that if I'm dealing in a customer scenario and the 24 customer calls and cancels the order for whatever 25

### FLORIDA PUBLIC SERVICE COMMISSION

reason, they may want to change and it's easier for us just to cancel the order than to try to submit multiple sups for BellSouth, we may go back in and use the exact same facilities on this order that we were using on the original order. Bell would reject that order because the facility is a pending installation. That's a problem.

8 They may ultimately -- if it didn't require 9 our services, they may ultimately go ahead and install 10 that service, send us a completion notice and then we 11 have all kinds of billing issues and other 12 installation services being installed at the customer 13 site that we aren't expecting.

It also throws our systems out of sync. When we send orders to BellSouth -- again, I talked about our back-end systems keeping track of what we're doing with BellSouth. If they are not processing our cancellation order, then my back-end systems are out of sync with their systems and that causes us some problems.

21 Obviously, we would have to throw human 22 resources in to resolve those issues, which again, 23 drives, you know, cost into our business, delays and 24 other headaches, which on a volume basis, you would 25 expect to see a number of cancellation orders. We're

#### FLORIDA PUBLIC SERVICE COMMISSION

trying to do an operational trial to prove that the
 system works the way that it's suppose to, so these
 caused us some pretty good concerns.

On the disconnects, this is a real
interesting scenario. And again, let me reiterate
that these orders were submitted just a couple months
ago now. So this is an interface that has been up and
operational for some time.

I'm surprised that nobody else, out of all 9 the 17 or 200,000 orders that have been submitted 10 11 through this interface, hasn't identified these as issues. Maybe these are issues with the customized 12 main frame interface that we're developing with 13 BellSouth. But, again, if the processes are the same, 14 it's just the interfaces or the software presentation 15 to the customers, one would expect to see similar 16 17 problems.

18 On the disconnects, when we started to do the disconnects, we didn't send all 14 at one time. 19 We sent two disconnects originally and ran into 20 similar problems with the installations. They were 21 22 being rejected in error, late FOCs. Called BellSouth. 23 "What's going on." Sent two more. Those two flowed through flawlessly. FOCs on time. Done on the date. 24 25 Completions. Everything. We thought the problem was

#### FLORIDA PUBLIC SERVICE COMMISSION

1 || resolved.

Well, since we thought the problem was resolved, we sent 10 more. We sent those 10 on March 24th or 23rd. Bell rejected all of them in error. But they did not, in this case, send us back either a manual or an electronic reject. They just sent us nothing and communicated with us via e-mail.

They confirm that they should not have 8 rejected these orders in error. They then sent us 9 firm order confirmations, but they sent the firm order 10 confirmations on April 7th, which is about 15 days 11 after we submitted the original disconnect order. And 12 then they ultimately got the disconnect done and the 13 completion notice came. But, again, one would not 14 expect to see a problem like that. If we had had 15 shorter due dates on our disconnects than we did, then 16 we would have had a problem with the service being 17 disconnected on time. 18

Again, we have the same issues with customer relationships; billing issues on both sides, billing to the customer, billing from BellSouth. So all of those things are issues for us that we are today trying to get resolved with BellSouth. Some of the unresolved problems that are

24Some of the unresolved problems that are25still existent today is -- and Bell knows about many

of these. And some of these -- and I'll identify
 which ones on this list. Again, Bell has made the
 statement that they have resolved that issue in their
 interface.

5 But, to date we still have a problem of 6 missing circuit ID when we get a firm order 7 confirmation back. And let me talk a little bit about 8 that.

When we send a loop order to BellSouth, what 9 happens is they assign a circuit ID to that order and 10 that circuit ID is communicated to the CLEC via the 11 firm order confirmation. So when you get the firm 12 order confirmation, you're looking for the unique 13 identifier for that circuit. That's important in 14 order to reference that circuit back to BellSouth. If 15 you need maintenance; if you need to clarify some 16 billing; whatever the case may be, the only way you 17 can identify that circuit to them is through circuit 18 ID. It's similar to a telephone number. If you don't 19 have your telephone number there's no way that they 20 can identify the line. This circuit ID represents the 21 telephone number equivalent for stand-alone loops. 22 Those aren't coming back to us on firm order 23

24 confirmations. And, I guess, the curious part is, it 25 doesn't happen all the time. Sometimes it does.

#### FLORIDA PUBLIC SERVICE COMMISSION

Sometimes it doesn't. And that's a problem in and of 1 itself. 2 Bell committed to fix this problem by 4-24, 3 which was just, I guess, a week or two ago. We have 4 had problems as recent as 4-29 with not receiving a 5 circuit ID on a firm order confirmation. So, very 6 recent problem. Still a problem nonetheless. 7 COMMISSIONER JOHNSON: Would that -- that 8 would be something that should be done electronically? 9 If something is processing, you have a firm order 10 confirmation, some electronic system should also give 11 12 you your circuit ID or would that be a manual --MR. GREEN: Well, unfortunately, I don't 13 know how Bell is doing it behind their systems, but if 14 15 it's flow-through and there is no manual interpretation, if I take that literally, then that 16 means that there is no human intervention. 17 18 COMMISSIONER JOHNSON: So it should be consistent. 19 MR. GREEN: So it should be consistent. 20 No end-to-end testing for local number portability. 21 22 Bell's converted their major metropolitan areas over to LNP so ILNP is not an option. 23 24 MCI is going to be moving forward. Once all of these issues get resolved, then we're were hoping 25

### FLORIDA PUBLIC SERVICE COMMISSION

that we can work through many of these issues with
 BellSouth in the next month or so. Our plan is to
 turn this interface up into production on June, July,
 1999.

5 We still don't have a test environment for 6 local number portability. What that means is, again, 7 we won't know what types of problems we should expect. 8 I mean, our history now with using this interface 9 suggests to us that we should expect to see some 10 problems.

When I released this service into -- when I 11 released this interface into production, what that 12 13 || means is that my LNP orders are subject to problems 14 that we have not yet been able to identify because of a lack of a test environment with Bell. That means 15 that I will have additional hand-holding of these 16 orders. In other words, my reps are going to sit 17 there and track these orders through so that we make 18 sure that even if they fall off for manual processing, 19 they don't impact the customer commit times of which 20 we will have to extend as well because we suspect that 21 there will probably be problems. 22

It means that our wrap-up will be much slower than it ordinarily would be because we are going to step into this thing gingerly as opposed to

## FLORIDA PUBLIC SERVICE COMMISSION

just rushing in after we know that the interface is up
 and operational.

3 So the lack of that test environment is 4 something that's been around now since we began the 5 development of this interface. We identified this 6 back in June of 1998 that there is no test environment 7 and today there still is none.

As you heard KPMG -- not KPMG. I'm sorry.
9 Telcordia suggest the other day is that a test
10 environment is one of those things that CLECs
11 absolutely need in order to validate the operation of
12 the interface.

I haven't talked a lot about maintenance, and I mentioned that in my opening that there was still a problem with the maintenance interface with BellSouth. And the primary problem above and beyond those things that were identified by AT&T as far as functionality, is the fact that the interface does not support what Bell has designated as a nondesign loop.

And I'm not sure if you all are familiar with design or nondesign, but it is a distinction that Bell has made for two wire loops. This interface, to date, does not support the ability to transmit an order via ECTA to BellSouth for nondesign loops. Bell's commitment, again, their promise to

fix this flaw is this month. And again, I believe this is another one of those scenarios where they have shared with us within the last few days, week or few days, that the ECTA interface now supports nondesign loops. Again, it's a scenario. It's a situation where we need to go out and prove that fact out.

7 We talked about errors, processing
8 cancellation orders. Those things still exist. Have
9 not been resolved to date to our satisfaction, so
10 we're still going to need to push through getting
11 those things identified and that process fixed and
12 resolved.

You see here that, you know, I also talk about nondesign loops from the ordering, not only from an automated vantage point, but from a manual vantage point as well. And that might be a little deceiving.

Back in August we identified the fact that these business rules that we received for developing of this interface in January did not include the business rules for nondesign loops, which was news to us because we found out about the August time frame that nondesign loops were available and that there was some pricing differences between design loops and nondesign loops.

25

The issue that is before us today, and just

recently as this afternoon or this morning when I
 called about it, the issue with nondesign loops is
 this.

Bell has not been able to provide us with the definitive concrete business rules for how to order those nondesign loops. We did, in fact, submit a nondesign loop order manually. But that was through the support of BellSouth in getting that order through.

Specifically, there's a unique piece of information that needs to be placed on the nondesign loop order. That's called a miscellaneous account number. And that's different than ordering a design loop because I don't need that information for a design loop.

Bell has yet to inform us, No. 1, where to 16 get that information from, and just recently confirmed 17 with us that that information should be ten ALFA 18 numerics as opposed to 12 excluding dashes. So we've 19 had some difficulty in getting the necessary business 20 21 rules for ordering those types of services from Bell. 22 Up until just recently, the last day to -- or let me 23 say within the last week, we've gotten a lot closer. Part of the problem here is that you don't 24 know these things until you start to dive into the 25

layer of detail and then all of the issues start to 1 pop out as you start to dive in for additional layers 2 of detail, which is a problem with the whole 3 development process that I will talk about coming up. 4 5 Obviously, we talked about service jeopardies for LNP; the fact that those things still 6 don't exist today and those are as important as any 7 other notification that's being provided by Bell. 8 Talked about nondesign loops and the 9 10 maintenance interface. And then there is this other issue for 11 12 adding a line to an existing service. We ran into 13 this scenario -- again, this is one of those things that you don't hear about when you're hearing about 14 15 specified migrations or migrates as-is or new orders or UNEs or things of that nature, but something as 16 simple as adding a line to an existing order. 17 If I don't have the circuit ID for the 18 orders that I submitted I can't, No. 1, add a line to 19 an existing service. So that's one of the impacts of 20 not having circuit ID. 21 But another one was the fact that we 22 couldn't even, up to last week, even get an order into 23 the Bell system for adding a line to an existing 24 Those things were just rejected on face 25 service.

value and Bell informed us that they could not support
 those.

Again, this is one of those situations where 3 just recently, Bell has communicated to us that you do 4 now have the ability to get an order through. We've 5 sent an order for adding a line to an existing 6 service. It made it through the interface. It wasn't 7 rejected and we did get a firm order confirmation back 8 on it and we're waiting for it to be installed. 9 That's only one order. I don't know what 10 they're doing behind the scenes to make sure that that 11 order gets through. But I would suggest that there 12 needs to be more volume testing of these problems 13 14 before one is assured that the issues have been fixed. COMMISSIONER JOHNSON: And in order to fix 15 the adding a new line problem that presupposes that 16 they fix the circuit ID problem? 17 18 MR. GREEN: Right. 19 COMMISSIONER JOHNSON: But you stated 20 that -- or did they already state that they've fixed that problem? 21 22 MR. GREEN: No, they didn't. Even though they don't send us the circuit ID, we pick the phone 23 up and say, what's the circuit ID on this order 24 because, again, these are trial orders. These are 25

FLORIDA PUBLIC SERVICE COMMISSION

1	only 15. So we're able to get it, it's just not
2	there.
3	COMMISSIONER JOHNSON: Got you.
4	MR. GREEN: Okay. Okay. Good. Now, let me
5	bring this all back because, you know, we talked about
6	what we've done with the interface, how we've used it,
7	how we tested for its operation. But I think one of
8	the things that is key here that is a consistent
9	thing, not only through this development but going
10	forward, is the fact that there have been a number of
11	commitments, promises, statements made by Bell as to
12	the operational readiness of their interface.
13	Specifically, flow-through for simple UNEs
14	has been available since December 1996. We proved
15	that that functionality has not been available or at
16	least wasn't available as early as January, 1999. And
17	Bell themselves have actually confirmed the fact that
18	that flow-through was not available in a letter.
19	Automated nondesign loop ordering since
20	October 1997. Well, in light of the fact that the
21	business rules weren't included in January 1998 and in
22	light of the fact that they just recently got me the
23	specifications in April of 1999, one would suggest
24	that that functionality wasn't available as well.
25	LNP process would be automated by first

quarter 1998. Well, through our operational trials we
 proved that loop and LNP orders fell out from manual
 processing. So, again, another claim made by
 BellSouth that was proven not to be operationally
 ready.

6 Commercially ready interface for EDI 7.0 in 7 March of 1998, as well as electronic rejects and 8 notifications available at that same time for that 9 same interface.

Well, again, through our operational trials 10 we proved that this interface, obviously, couldn't be 11 commercially ready because sending 15 orders all being 12 handled manually, all having manual notifications, is 13 not the definition or should not be the definition of 14 15 commercially available. As well as, proving even 16 during our EDI simulation testing that Bell at that 17 time, which was back in April, May, June of 1998, could not provide electronic rejects and notifications 18 19 for even non-LNP orders.

And then, you know, the last one there. That again, has been confirmed by Bell and just recently enhanced by them. The fact that they're electronic bonding maintenance interface supported nondesign loops back in 11-1997. Obviously, that's not true because they just fixed that problem in May,

1 per them; untested, by us, 1999.

2 Obviously -- I mean, there is a number of 3 issues with the development process. One is easily 4 identifiable which is the lack of urgency around 5 getting many of these issues resolved.

Again, we identified in this process with Bell through the development, issues that were important to us that were not included in the interface. I mean, on average is takes Bell's account team up to, at the minimum, 30 days to respond back to issues that we address to them.

To give you some specific examples, we identified the limitation of being able to add a line to an existing account back in August of 1998. Bell just recently again said that they resolved that issue in March, which is almost eight to nine months after we identified the problem to them.

Another instance is the fact that it's taken 18 over a year for LNP service jeopardies and around a 19 20 year for rejects and clarifications with LNP related orders, on top of seven months to fix this nondesign 21 22 loop issue with the maintenance interface. So you can see that it takes some considerable amount of time, 23 once the issue is identified, to move Bell to getting 24 these issues fixed and resolved. 25

п	
ı	Promise functionality. We've gone through
2	that. There it just wasn't available. Those
3	things that they said was there, was not there when we
4	began to transmit these orders. That's obviously a
5	problem because you're developing these interfaces
6	with the belief, with the hope, with the realization
7	that those things will be there. When you prove that
8	they're not, that's discouraging and causes you some
9	pain in your own company when these things aren't
10	working the way that they're supposed to.
11	I define this whole development process with
12	Bell as hit and miss. I mean, unless we're driving to
13	uncover it, we're not going to find out about it. The
14	fear there is that a year from now, 18 months from
15	now, we're going to stumble on a whole series of
16	additional problems that are out there. That may be a
17	little too late to get any expedited resolution
18	through because you don't have the same leverage with
19	the desire of the Bell operating company to get into
20	End Region LD.
21	So the hit and miss process that we go
22	through is really in effective for development of
23	these interfaces.
24	And then lastly is the inadequate systems
25	testing by Bell. Now, you know, Bell has stated that

FLORIDA PUBLIC SERVICE COMMISSION

their systems have been tested by Ernest and Young and
 that they do their own internal testing of these
 interfaces to prove that these interfaces are
 operationally ready in lieu of commercially available
 volumes.

Well, I'm not suggesting that my 15 orders were commercial volume. But I am suggesting that that testing was not adequate to identify the problems.

I mean -- let me draw another point here. 9 In Mr. Stacy's testimony yesterday there was this -- I 10 think Jay touched on it as well. There was this "E" 11 category for errors and he identified those as 12 BellSouth programming errors sometimes. Well, you 13 wouldn't expect to see those "programming errors" in 14 an interface that is commercially ready. You just 15 absolutely would not expect to see those. 16

17 **COMMISSIONER JOHNSON:** You stated that, I 18 guess, on your first bullet that the lack of urgency 19 in resolving issues and providing the functionalities 20 that, I guess, that points are promised, but there's a 21 hit and miss proposition. What do you think it would 22 take to sufficiently motivate?

You also mentioned, kind of as an aside,
that getting into long distance doesn't seem to be
sufficient enough motivation in your opinion in this

1 particular region. What could we do then, assuming 2 that getting into long distance isn't an objective 3 right now for the company? What do you suggest that 4 we could do to expedite the process?

MR. GREEN: I'll answer that, but let me 5 just make sure I clarify a point. I wasn't suggesting 6 that getting into End Region LD was not a significant 7 enough incentive for Bell, but if they got in before 8 we identified the other problems through this hit and 9 miss process, we go through and develop it, we would 10 lose the leverage to move them to get those issue 11 resolved even more quickly than they're resolving them 12 13 now. 14 COMMISSIONER JOHNSON: Well, obviously, the 15 leverage --

MR. GREEN: Is --

16

20

17 COMMISSIONER JOHNSON: Looking at your
18 presentation, it doesn't suggest that that is -- the
19 leverage is moving them any quicker.

MR. GREEN: Or quickly at all.

21 COMMISSIONER JOHNSON: And, again, just on 22 your presentation --

MR. GREEN: Right. Or quickly at all. What
I believe is the next step to try to move this is
addressed on my final slide and it's an excellent

1 || segue.

2 **COMMISSIONER JOHNSON:** Could you also, when 3 you address that, as a part of your summation --4 perhaps not in a wish list kind of way. But if there 5 are best practices, some things that other companies 6 in Florida or that you've dealt with that are doing 7 that works or that works well, just a couple of those, 8 and maybe you could do something on a follow-up basis.

9 But you pointed to guite a few things and you were excellent in providing us with some real life 10 examples of things that were not working. It would be 11 helpful for me to gage, too, is it just not working in 12 Florida in BellSouth's region, or is it not working 13 across the nation. And is this something that, you 14 know, is unique to the South or -- those kinds of 15 things would at least give me some perspective. 16

17 MR. GREEN: Okay. Let me do my best to try to address that. Obviously, you can tell from the 18 19 slide that where I think the direction should head 20 from here is driving towards some type of third-party testing of the operational interfaces. I mean, that 21 moves us out of this, you know, "Well, Bell says it 22 works and MCI says it doesn't and AT&T says it 23 doesn't." I mean, it's similar to what's going on in 24 25 New York, and I think that's what has allowed the

process to move more quickly in the Bell Atlantic New 1 York region. 2 And you see a movement through various 3 states, a number of states, actually, moving towards 4 5 third-party testing. Ideally for us it would be based upon the 6 third-party testing format that is established in New 7 York as opposed to some of the others that are going 8 on in other parts of the country, primarily because 9 that process tests the whole gamete of order 10 functionality, not just the functionality that's been 11 developed by an individual CLEC and oversight of CLEC 12 to CLEC testing, but actual developing the interface 13 from the ground up, using the documentation that's 14 been provided by the RBOC that will allow anybody 15 coming behind a third-party test to build very similar 16 17 interfaces. And again, addressing the whole gamete of ordering capabilities. 18 19 They can replicate commercial volumes. Ι mean, until we get the interfaces up and operational, 20 until we get some of the capabilities that we need in 21 order to move forward, we don't expect to see 22 23 commercial volumes any time soon.

24 So they can replicate commercial volumes. 25 And again, commercial volumes are going to be those

1 things that flush out the errors in the system that 2 will move us from this hit and miss.

One of the things that's worked so well in 3 the NYNEX region or -- I'm sorry -- the Bell Atlantic 4 New York region -- history there -- is the fact that 5 there are exceptional reports that are filed by KPMG 6 and it gives the CLEC participants early 7 identification of problems that they may not have R encountered yet or may not encounter for some time 9 down the road. So it's a way for them to get those 10 issues addressed and closed via this CLEC third-party 11 RBOC process. 12

13 So I think that's the direction that things need to head. We've been doing this for two and a 14 half years and MCI is serious about getting into the 15 business where there is an opportunity. We are in the 16 business in New York. We are doing commercial volumes 17 there. And we're fairly successful. There is gaps in 18 19 the Bell Atlantic interfaces as well as gaps in the BellSouth interfaces. 20

So to address your question about, is it unique to the South, I don't think it's unique to the South. I think it's just -- I think it's unique to the process because everybody, I mean, truly is going through the exact same process to try to get these

# FLORIDA PUBLIC SERVICE COMMISSION

1 || interfaces built.

And to give credit where it's due, there is companies out there that are trying to look for ways to try to lessen the pain to develop these interfaces. But, you know, in my opinion, those may not quite be ready yet as well.

So, I think the most immediate approach is probably going to be third-party testing and then there may be some other things that flow out of that that allows this Commission and other Commissions to make a prudent decision on whether or not the interfaces are operational or not.

13 COMMISSIONER JACOBS: Do you share in the
14 view that the TAG offerings don't address -- don't
15 adequately address the inadequacies of the EDI?

16 MR. GREEN: MCI is not a supporter of TAG.
17 We are a supporter of the EDI application for
18 preordering.

19 COMMISSIONER JACOBS: Mainly because of 20 volume issues?

21 MR. GREEN: From our vantage point, it's 22 mainly from a systems vantage point. We have an EDI 23 system that's up and operational. It only makes sense 24 to have a preordering functionality that's based upon 25 EDI as well. Gets us out of the habit of maintaining

two different protocols for one operation. And then that operation is a sale to a customer. So, I'm going to refrain from addressing TAG because MCI has not been a participant in the development of TAG. And if there is no other 5 II questions, that concludes my presentation. COMMISSIONER DEASON: Okay. Thank you. Any other questions? We're going to take a lunch recess. We'll reconvene at 1:45. (Thereupon, lunch recess was taken at 12:40 p.m.) (Transcript continues in sequence in Volume 3.) 

# FLORIDA PUBLIC SERVICE COMMISSION

Vol. 2

\$	4	account 287/20, 287/21, 287/23, 291/18, 353/12,
\$4 225/22	4,000 305/6	358/9, 358/14 accountability 296/13
·	4,200 303/10, 304/4 4,500 303/9	accounts 330/21 accurate 265/2, 309/3
•	4-24 349/3	accurately 310/5, 310/20
<b>'96</b> 220/9, 316/9, 316/12	4-29 349/5 4.69 342/22	acronyms 219/9, 228/11 Act 252/12
<b>'97</b> 222/13, 223/12, 226/6 <b>'99</b> 223/14	4075 212/18	actively 323/13 Activities 273/8, 292/4
	41 310/1 43 269/14	add 229/19, 308/23, 311/18, 343/9, 354/19, 358/13
1	45% 293/14	added 239/16, 312/25 adding 323/20, 354/12, 354/17, 354/24, 355/6, 355/16
1 333/4, 333/5, 353/16, 354/19	4ESS 234/1	address 218/22, 220/16, 221/12, 233/20, 358/11,
10 223/19, 253/16, 253/21, 254/10, 258/23, 259/2, 276/23, 276/25, 279/10, 284/12, 291/9, 347/3	5	362/3, 362/18, 364/21, 365/14, 365/15 addressed 318/19, 318/23, 361/25, 364/11
10,000 299/25, 301/13	5,800 305/3	addressing 316/25, 363/17, 366/3
10,251 303/12 10-hour 259/3	50 256/22	adequate 264/8, 266/2, 267/15, 309/9, 360/8 administration 222/4
100 222/7, 257/20, 291/9	54% 302/18 55% 292/20, 302/18	adopts 217/19
100% 257/19, 333/25 108,000 295/3, 296/8	55,000 305/13	ADUF 226/13 advance 291/24
108,467 292/13, 292/19 10th 319/2	56 269/13, 269/15 57% 340/18	advanced 237/7
11% 299/19	5:00 247/4	advantage 239/7 affirmative 332/8
11,000 299/25, 301/13 11-1997 357/24	5th 343/20	afternoon 353/1
110,000 302/21	6	agent 322/21, 322/23 aggregate 270/24, 307/16
12 253/16, 253/22, 258/24, 269/24, 287/16, 353/19 128-B 304/9		aggregated 298/18
13,000 305/9	6 212/15 6,200 304/23, 305/1, 308/15	agree 217/22, 289/25 agreed 290/5, 290/10
14 256/24, 326/8, 340/19, 340/20, 340/25, 341/2, 343/3, 346/19	60 336/1	agreement 290/13, 341/22
14,000 262/10	60% 256/23, 299/16, 336/20 61% 300/12	airline 254/1 airplane 242/6
148 212/17 15 244/20 225/12 222/22 224/21 242/5 247/11	64,881 293/22 6:30 297/22	ALEC 284/1
15 244/20, 325/13, 332/22, 334/21, 342/5, 347/11, 356/1, 357/12, 360/6	6:30 29//22	ALFA 353/18 ALFAs 340/9
15% 284/12, 284/15 15th 222/23	7	alive 311/21
17 346/10	7 323/21, 338/21	allocated 299/16 allocation 298/17, 299/8, 301/15, 301/17, 302/6,
18 225/19, 310/6, 310/21, 359/14 18% 262/12	7.0 357/6	308/16, 308/17, 309/22
19% 266/9, 278/17	71 313/9 72% 263/18, 293/22	allow 263/10, 286/16, 286/19, 316/14, 332/19, 363/15 allowed 262/11, 286/15, 362/25
19,000-some 284/21	73.5% 300/18	allows 216/25, 238/7, 246/22, 261/15, 282/3, 286/22,
19,400 305/9 198,537 292/8	75% 299/16 77 269/14	289/1, 323/14, 324/12, 333/3, 340/5, 365/10 alternative 309/18
1995 220/8 1996 222/8	7th 347/11	amount 224/8, 258/19, 296/3, 313/21, 317/25,
1996 232/1, 232/7, 356/14 1997 220/7, 220/11, 220/18, 315/7, 356/20		322/14, 358/23 amounts 275/1
1998 321/6, 325/15, 327/10, 328/17, 332/23, 351/6,	8	analog 274/18
356/21, 357/1, 357/7, 357/17, 358/14 1999 212/15, 301/3, 321/6, 329/22, 332/23, 350/4,	8 223/19, 340/18, 341/1	analysis 276/1 analyzing 270/11
356/16, 356/23, 358/1	8,700 303/18, 303/23 81% 263/19	anomaly 282/12, 282/15
1:45 366/9 1st 343/21	83% 261/17	answer 302/4, 306/1, 344/12, 361/5 answers 233/3
	83.2% 300/21 85.2% 300/16	API 260/22
2	86 303/18	application 316/20, 316/22, 316/24, 320/5, 365/17 applications 317/1
2 212/7, 333/6		applied 258/6, 263/10, 294/1
2,000 301/15 2.9 342/21	9	applies 300/14, 310/11, 310/12 appointment 328/12, 344/18
20 253/18, 269/24, 297/11, 334/21, 335/25, 336/4	9 223/19 9,000 303/17	approach 327/18, 365/7
<b>20,000</b> 285/13, 285/21, 286/1, 286/6 200 257/21, 257/22	9,500 299/25, 304/21, 308/14	approval 319/25 April 225/13, 232/7, 289/20, 316/9, 316/11, 325/21,
200,000 302/20, 305/13, 346/10	90,000 293/20, 296/14 90,070 293/12	347/11, 356/23, 357/17
212 212/8 214 213/4	90,070 293/12 90/10 300/22	architecture 216/11, 238/22, 268/7, 322/22, 323/11 areas 349/22
22 269/14	95% 300/25	arena 239/15, 322/17
23rd 347/4 24 272/23, 282/6, 282/7	96% 261/17, 263/9 96.5% 300/20	argument 310/22, 317/6 arrangement 267/12
24th 347/4	997s 332/9	arrived 292/19
25,189 293/18 28% 293/19	9:30 212/16, 214/2	as-is 343/8, 354/15 assign 300/10, 348/10
28th 328/17	A	associated 219/5, 323/22
29 275/15, 312/17	a.m 212/16, 214/2	assumption 302/16, 302/17 assured 355/14
3	abbreviation 214/23	AT&T 213/5, 214/7, 216/22, 217/8, 217/9, 227/22,
<u> </u>	ability 288/16, 338/1, 351/23, 355/5 abnormality 253/11	233/22, 237/14, 264/24, 267/20, 270/3, 279/22, 297/16, 308/25, 314/8, 314/19, 325/2, 334/10, 339/24, 341/19,
3% 253/9 3,000 303/24, 304/3, 305/5	absence 236/2	351/17, 362/23
3-28 328/25, 329/8, 329/14	absent 232/11, 309/19	AT&T's 214/14, 233/18 AT&T-specific 270/24
<b>30</b> 234/15, 245/7, 245/8, 245/9, 274/6, 313/8, 358/10 <b>30's</b> 299/20	absolute 258/7 accept 248/23	Atlanta-02 337/9
30-minute 244/23, 272/24, 274/4, 275/5	acceptable 290/8	Atlantic 323/11, 363/1, 364/4, 364/19
31% 278/17, 284/1, 284/7 32% 272/5, 275/15	accepted 244/14, 244/16, 245/20, 263/25, 269/18, 327/11, 328/3, 328/18	ATLAS 222/4, 222/12 attempted 270/3
320 213/6	accepts 262/25, 273/4	ATTENDANCE 212/22
<b>34</b> 269/13, 275/15 <b>366</b> 212/8	access 220/16, 226/19, 240/1, 256/15, 315/2, 316/15, 317/13	attention 271/15, 306/13, 307/4, 307/8 ATTIS 235/20
	accommodate 238/4	attractive 238/16
	accomplish 216/7, 218/12, 219/1, 219/12, 219/13, 219/23, 315/12	audited 308/19 auditing 309/20
	accomplishes 289/17	August 220/8, 234/5, 257/4, 327/6, 352/17, 352/21,

358/14 auto 303/17, 304/2, 305/5, 308/10 autoclarification 283/7 autoclarified 294/14 autocorrection 283/10 automated 215/11, 271/24, 328/11, 336/14, 352/15, 356/19, 356/25 automatic 334/13 automatically 244/12, 245/11, 283/21 automation 272/1, 272/3 availability 257/16, 257/22, 258/5, 259/3, 259/16, 259/19 available 215/16, 220/23, 221/13, 221/24, 226/12, 234/5, 234/8, 234/13, 241/4, 243/16, 257/4, 257/16, 258/2, 258/11, 258/25, 260/12, 260/23, 261/13, 262/8, 264/21, 270/1, 274/24, 276/3, 277/23, 288/12, 293/10, 305/15, 309/8, 318/15, 319/16, 327/9, 328/22, 329/21, 352/22, 356/14, 356/15, 356/16, 356/18, 356/24, 357/8, 357/15, 359/2, 360/4 average 253/5, 256/14, 269/11, 282/18, 300/21, 342/7, 342/21, 342/23, 358/9 avoid 249/2, 277/20

## B

back-end 223/3, 224/18, 226/6, 324/10, 332/3, 335/13, 345/16, 345/18 bad 244/20, 266/17, 278/11, 307/23 haffles 341/13 base 258/7 based 225/20, 237/19, 237/20, 237/23, 266/10, 266/11, 267/3, 300/22, 308/17, 322/22, 324/21, 326/22, 331/12, 363/6, 365/24 basis 220/15, 221/9, 224/6, 248/20, 253/21, 259/16, 293/3, 295/19, 345/24, 362/8 batch 221/22, 272/23, 273/7 bearing 325/8 begs 337/20 beings 254/18 belief 288/2, 300/16, 359/6 Bell 323/11, 325/16, 326/1, 326/9, 326/25, 327/2, 327/6, 327/12, 327/15, 328/7, 328/14, 328/25, 329/6, 329/9, 330/7, 331/7, 332/4, 333/24, 334/22, 335/25, 336/24, 337/2, 337/11, 341/12, 342/5, 342/9, 345/5, 347/4, 347/25, 348/2, 349/3, 349/14, 350/15, 351/19, 351/22, 353/4, 353/16, 353/21, 354/8, 354/24, 355/1, 355/4, 356/11, 356/17, 357/16, 357/21, 358/7, 358/14, 358/24, 359/12, 359/19, 359/25, 361/8, 362/22, 363/1, 364/4, 364/19 Bell's 249/10, 335/4, 341/21, 349/22, 351/25, 358/9 BellSouth 217/8, 218/3, 219/2, 219/8, 219/10, 219/17, 220/1, 220/6, 220/8, 220/21, 221/13, 222/14, 222/21, 223/1, 226/18, 227/9, 229/16, 231/17, 232/3, 233/2, 233/12, 234/6, 234/11, 234/24, 235/6, 239/16, 240/1, 240/7, 240/8, 240/14, 240/17, 241/1, 242/18, 243/9, 243/10, 243/13, 243/23, 244/3, 244/9, 244/10, 245/10, 246/2, 247/15, 248/1, 248/2, 248/11, 248/22, 250/14, 251/9, 251/13, 251/22, 252/3, 252/5, 252/7, 252/8, 252/9, 252/12, 252/13, 252/24, 252/25, 255/6, 256/17, 256/18, 256/24, 257/7, 257/10, 257/11, 257/17, 257/21, 258/22, 259/1, 260/1, 260/3, 260/5, 260/20, 261/14, 261/15, 261/23, 262/8, 262/16, 262/23, 263/2, 263/4, 263/6, 263/8, 264/18, 265/6, 265/19, 266/1, 266/6, 266/14, 266/19, 267/19, 267/20, 267/21, 267/24, 268/3, 268/19, 268/25, 269/23, 270/13, 271/4, 272/1, 272/8, 272/12, 272/14, 272/18, 273/2, 273/22, 274/15, 274/17, 275/13, 275/20, 277/21, 277/23, 278/10, 274/17, 275/13, 275/20, 277/21, 277/23, 278/10, 278/21, 279/9, 279/12, 279/24, 280/19, 282/25, 283/6, 283/12, 283/22, 284/23, 285/8, 285/14, 285/22, 286/1, 286/5, 286/11, 287/21, 288/12, 288/15, 288/19, 288/20, 289/5, 289/15, 289/21, 290/6, 290/8, 290/14, 290/15, 290/16, 290/24, 291/1, 291/6, 291/8, 292/10, 292/14, 292/21, 293/1, 293/2, 294/17, 294/18, 295/19, 296/3, 296/23, 298/14, 298/25, 299/9, 299/11, 299/23, 300/5, 300/14, 301/12, 301/14, 301/20, 302/21, 303/4, 303/20. 300/14, 301/12, 301/14, 301/20, 302/21, 303/4, 303/20, 304/20, 304/22, 305/23, 306/7, 307/21, 308/6, 308/14, 310/2, 310/5, 310/7, 310/17, 310/20, 311/12, 311/13, 311/19, 312/10, 312/16, 314/23, 316/7, 316/14, 316/19, 311/19, 512/10, 512/16, 514/25, 510/7, 516/14, 516/19, 316/21, 317/3, 318/19, 319/21, 319/25, 320/2, 321/4, 321/15, 321/18, 321/25, 322/6, 323/1, 323/7, 323/16, 323/21, 324/11, 324/18, 324/20, 324/21, 325/5, 325/13, 325/16, 325/25, 327/11, 327/19, 328/2, 330/1, 330/13, 331/5, 331/10, 331/13, 332/6, 333/7, 333/14, 335/17, 335/22, 336/5, 336/6, 336/9, 336/12, 336/16, 336/17, 338/14, 340/3, 340/15, 341/25, 342/13, 343/22, 345/3, 345/15, 345/17, 346/14, 346/22, 347/21, 347/23, 348/9, 348/15, 350/2, 351/16, 351/24, 353/8, 357/4, 360/13, 364/20 BellSouth's 217/1, 221/24, 225/10, 227/14, 229/5, 229/10, 230/3, 232/17, 233/6, 233/18, 234/3, 235/16, 248/15, 256/6, 260/17, 262/2, 263/3, 264/21, 268/6, 273/12, 273/15, 285/5, 285/20, 285/24, 288/3, 289/7 290/22, 298/12, 300/19, 300/22, 302/6, 303/2, 303/14,

308/4, 308/12, 308/15, 315/1, 316/22, 318/4, 326/20, 362/13 benefit 342/9 **BERENS 212/20** Betty 212/17 big 261/12, 269/4, 292/7, 299/21, 305/12, 343/6, 344/22 bigger 238/21 Bill 237/11, 317/18, 322/22, 334/3 billing 225/3, 226/11, 226/15, 226/17, 226/19, 318/17, 322/11, 322/12, 324/15, 325/1, 325/2, 333/4, 333/7, 345/11, 347/20, 347/21, 348/17 bit 314/25, 321/4, 348/7 blame 300/10 blank 312/10 BLISS 227/25, 228/6, 228/15, 228/23, 229/4, 229/5, 229/7, 230/2, 230/9 block 222/10, 248/13, 310/9 blocked 250/9 blocks 222/7 board 225/19 BOC's 319/10 bogus 310/23 bonded 225/11, 232/5 bonding 225/6, 315/24, 357/23 bottom 219/22, 268/22, 272/6, 275/11, 282/20, 283/8 box 292/16 Bradbury 214/7, 252/11, 341/19 break 297/11, 320/10, 322/7 brief 226/4, 297/12, 320/24 bring 265/13, 356/5 broader 237/18 broken 214/11, 250/16 brought 222/8 brutally 297/19 Bryan 320/23 bugs 304/22 build 217/17, 225/10, 225/12, 229/10, 229/22, 248/3, 255/20, 340/2, 363/16 building 216/23 built 221/1, 222/16, 228/20, 280/18, 332/3, 365/1 bullet 360/18 burden 249/20, 249/21 burdens 307/9 Bureau 319/2 business 214/17, 214/19, 215/17, 215/18, 216/8, 216/10, 218/13, 218/18, 219/11, 219/13, 219/20, 220/2, 224/3, 224/9, 226/5, 228/1, 228/3, 228/7, 233/21, 251/15, 257/11, 257/12, 261/18, 265/2, 265/12, 265/20, 267/11, 269/13, 273/1, 273/3, 277/19, 278/5, 279/23, 280/7, 280/13, 280/16, 280/17, 280/20, 281/9, 292/2, 300/20, 303/1, 306/25, 309/9, 309/10, 309/14, 310/3, 310/21, 310/23, 312/12, 312/15, 313/8, 315/5, 315/18, 323/4, 323/5, 325/17, 326/22, 327/18, 331/12, 334/12, 339/3, 340/3, 340/4, 340/7, 340/15, 345/23, 352/18, 352/20, 353/5, 353/20, 356/21, 364/16, 364/17 buy 229/17 С CAB 226/18 calculate 239/23, 311/11 calculated 291/7 calculates calculating 291/8 calculation 239/17, 239/24, 259/17, 290/1, 290/23, 308/1 call 215/2, 220/17, 223/9, 227/19, 231/18, 232/13, 233/3, 242/19, 280/21, 302/11, 304/9, 314/25, 316/4, 320/16, 338/14, 344/9 calls 283/6, 301/14, 344/25 came 225/19, 228/21, 266/9, 287/12, 292/14, 293/24, 296/9, 299/9, 300/9, 300/12, 302/20, 302/22, 302/23, 302/25, 303/3, 317/3, 328/24, 341/4, 347/14 cancel 242/10, 340/21, 345/2 cancellation 331/1, 341/10, 343/1, 343/3, 343/5, 343/16, 343/20, 343/24, 345/18, 345/25, 352/8 cancellations 333/18, 343/10 cancelled 340/24, 341/7, 341/9, 344/17, 344/18, 344/21 cancelling 343/17, 344/23 cancels 344/25

capabilities 224/16, 260/3, 260/6, 260/7, 261/15,

363/21

card 224/6

Carolina 317/5

CARE 226/22, 272/22, 342/10

careful 214/21, 215/21

262/16, 265/1, 266/20, 268/4, 268/19, 269/3, 363/18,

capability 222/21, 227/16, 229/2, 229/11, 231/22,

232/12, 239/17, 239/19, 239/25, 240/3, 240/7, 241/8,

248/23, 250/15, 251/18, 262/3, 263/7, 266/25, 267/2,

270/10, 272/25, 288/22, 315/21, 316/13, 323/17, 340/5

carrier 226/19, 226/21, 290/11, 319/2, 319/19 Carrier's 319/24 carrier-to-carrier 319/12 carriers 237/17, 237/18, 238/2, 238/17 cart 302/23 case 217/2, 268/25, 270/8, 280/6, 280/9, 335/9, 338/5, 347/5, 348/17 cases 219/2, 310/10, 344/7 cast 278/6, 278/7 cat 221/3 catches 284/7 categories 287/16 category 360/12 caught 306/4 caused 289/15, 299/11, 308/4, 335/12, 346/3 causes 286/14, 345/19, 359/8 causing 270/4 Center 212/17, 219/6, 273/5, 273/25, 274/6, 292/24, 315/1 centers 219/5, 219/7, 324/15 central 221/24, 243/14 centralized 272/21 certified 224/2 CHAIRMAN 212/12, 214/3, 225/18, 240/9, 240/18, CHAIRMAN 21212, 2143, 225/18, 240/5, 240/18, 240/20, 243/20, 243/22, 243/25, 247/19, 247/22, 275/18, 276/4, 276/8, 276/11, 276/15, 276/19, 277/25, 278/9, 278/12, 278/14, 278/16, 278/22, 279/1, 279/6, 279/17, 280/5, 283/14, 283/18, 283/24, 284/3, 284/10, 284/15, 284/18, 284/24, 292/17, 297/7, 297/10, 297/14 change 221/25, 239/7, 252/19, 299/13, 299/17, 299/21, 309/9, 313/14, 345/1 changed 298/23, 299/19 changes 223/13, 279/12, 280/15, 309/10, 332/20, 343/9 changing 253/24 channel 337/1, 340/8 characters 340/13 charge 250/25, 251/1 charging 251/4 chart 295/1, 296/4, 308/21 charts 218/14 cheaper 238/23, 251/1 check 318/20 Chief 319/1 choice 219/24, 296/6, 337/16 choosing 259/7 Christmas 342/16 circuit 348/6, 348/10, 348/11, 348/14, 348/15, 348/18, 348/21, 349/6, 349/12, 354/18, 354/21, 355/17, 355/23, 355/24 claim 274/17, 357/3 claiming 311/22 clarification 276/17, 303/17, 335/6, 335/7 clarifications 328/10, 328/24, 332/11, 336/8, 358/20 clarifies 304/2, 305/5 clarify 308/11, 348/16, 361/6 CLARK 212/13, 238/15, 239/6, 239/13, 261/19, 261/22, 262/5, 287/8, 307/14, 307/18, 308/8, 344/3 class 296/15 clean 242/18, 276/10, 313/6, 313/22, 313/24, 341/24 clear 264/20 clearer 233/15 ckarly 218/16, 279/2, 317/7 CLEC 219/25, 222/24, 232/23, 238/7, 244/5, 244/17, 256/22, 258/21, 258/23, 260/18, 260/25, 262/6, 262/11, 263/15, 263/21, 269/25, 270/24, 284/21, 284/22, 286/6, 286/7, 287/22, 289/6, 291/3, 291/25, 292/9, 294/16, 294/17, 298/21, 299/11, 300/15, 301/5, 303/1, 304/23, 305/9, 307/16, 307/24, 308/3, 308/6, 308/8, 308/15, 310/15, 311/7, 312/18, 314/6, 314/19, 348/11, 363/12, 363/13, 364/7, 364/11 CLEC's 229/14, 281/13, 296/6, 308/12, 314/5 CLECs 238/9, 240/2, 243/13, 244/8, 253/15, 260/2, 260/6, 261/4, 262/15, 263/14, 263/19, 264/20, 269/1, 269/6, 269/12, 271/5, 271/6, 273/20, 282/1, 285/13, 295/17, 299/1, 299/16, 300/6, 302/21, 303/16, 303/18, 309/7, 351/10 CLECs' 220/1, 220/2, 271/3, 275/23, 289/7 clever 291/23 client 238/20, 240/10, 240/13 closed 364/11 closer 353/23 closes 310/23 code 248/19, 248/21, 248/24, 249/6, 249/10, 249/16, 250/9, 251/16, 339/3, 340/8 coded 339/6 codes 248/15, 248/16, 248/18, 249/8, 337/1 coding 326/3 COFFI 220/20 collection 253/19 Commenced 212/16, 321/5 comment 270/21, 280/24, 281/3

comments 318/17, 318/18 commercial 234/18, 235/16, 260/23, 317/21, 319/7, 323/13, 360/7, 363/19, 363/23, 363/24, 363/25, 364/17 commercially 234/13, 357/6, 357/12, 357/15, 360/4, 360/15 COMMISSION 212/1, 212/21, 321/9, 335/20, 365/10 COMMISSION 212/1, 212/21, 321/9, 335/20, 365/1 COMMISSIONER 212/12, 212/13, 212/14, 214/3, 221/2, 221/18, 224/12, 224/12, 225/1, 226/24, 228/9, 228/13, 230/24, 231/6, 231/21, 232/11, 232/18, 232/21, 233/4, 234/19, 234/23, 235/3, 235/11, 235/19, 236/4, 236/10, 236/21, 236/24, 237/4, 237/19, 237/25, 238/9, 238/13, 238/15, 239/6, 239/13, 241/6, 241/21, 241/24, 242/21, 242/24, 243/4, 243/18, 244/6, 245/4, 245/7, 245/9, 245/14, 245/17, 245/19, 245/23, 246/5, 246/7, 246/18, 246/25, 249/7, 249/12, 249/15, 249/19, 250/18, 250/21, 250/24, 251/5, 251/7, 251/8, 252/15, 252/21, 254/11, 254/13, 254/17, 254/20, 254/24, 255/1, 255/3, 255/9, 255/17, 255/22, 255/24, 256/2, 256/5, 256/8, 256/10, 258/4, 258/10, 259/5, 259/9, 259/12, 259/15, 259/21, 259/24, 256/19, 251/2, 259/27, 259/12, 259/13, 259/21, 259/24, 261/19, 261/22, 262/5, 262/14, 262/21, 263/17, 263/21, 264/2, 264/7, 264/12, 264/16, 265/9, 265/15, 265/23, 266/3, 266/12, 266/15, 267/5, 267/5, 267/9, 267/11, 267/22, 267/23, 268/1, 268/9, 268/13, 268/17, 268/22, 269/16, 270/2, 271/9, 271/13, 271/21, 272/6, 272/9, 272/16, 273/12, 273/15, 273/20, 274/8, 274/12, 274/22, 274/25, 278/3, 280/6, 281/1, 281/16, 281/19, 281/23, 282/1, 282/3, 282/6, 282/11, 282/16, 282/20, 286/11, 286/18, 286/24, 287/6, 287/8, 287/25, 288/4, 288/8, 288/14, 289/24, 295/2, 295/6, 295/9, 295/12, 295/21, 295/24, 296/7, 296/12, 296/17, 298/5, 298/6, 301/8, 301/19, 301/23, 302/1, 303/25, 304/6, 304/10, 304/14, 304/19, 305/18, 306/3, 307/3, 307/7, 307/14, 307/18, 308/8, 313/17, 313/24, 314/1, 319/18, 320/6, 329/3, 329/11, 329/15, 329/19, 334/8, 338/18, 338/23, 339/10, 339/16, 339/18, 339/23, 344/3, 349/8, 349/18, 355/15, 355/19, 356/3, 360/17, 361/14, 361/17, 361/21, 362/2, 365/13, 365/19, 366/7 Commissioners 214/8, 218/15 Commissions 365/10 commit 350/20 commitment 329/9, 329/22, 335/4, 341/21, 351/25 commitments 328/14, 356/11 committed 272/11, 323/9, 327/12, 328/15, 349/3 common 228/6, 275/23, 288/9, 290/11, 313/10, 319/2, 319/19, 319/24 communicate 333/8, 335/22 communicated 347/7, 348/11, 355/4 communicating 335/16 communications 216/12, 217/25, 228/18 communications 216/12, 217/23, 228/18 community 225/7, 244/5, 289/6 companies 243/23, 362/5, 365/3 company 303/11, 303/23, 304/3, 304/4, 304/6, 304/9, 304/13, 305/3, 305/4, 305/7, 305/9, 307/1, 307/5, 359/9, 359/19, 361/3 comparable 268/3 comparative 274/23, 311/22 compare 268/2 compared 252/24, 261/13 comparing 257/13, 270/12 comparison 258/1, 311/20 compete 317/20, 321/21 competitive 219/23 competitors 215/16, 252/10 complain 252/17 completed 327/5, 342/3, 342/24 completion 311/8, 311/14, 311/25, 312/9, 312/17, 324/7, 324/13, 327/1, 332/12, 332/25, 333/2, 333/3, 339/17, 340/18, 340/19, 341/1, 341/3, 341/5, 341/6, 341/8, 342/2, 342/22, 344/16, 345/10, 347/14 Completions 346/25 complex 251/15, 261/8, 287/14, 319/4 components 283/3 comport 289/18 composed 285/15 compute 318/10 computer 242/16, 254/4, 254/14, 262/22 computers 217/2, 217/3, 221/7, 258/16, 277/10 concern 241/7, 343/25 concerned 214/24, 214/25, 318/2 concerns 346/3 conclude 320/12 concluded 226/5 concludes 366/6 conclusion 316/20 conclusions 317/10, 317/12 conclusive 320/3 concrete 353/5 conditions 231/12, 288/20 conduct 232/17 conducted 330/3 Conference 212/17 configuration 232/16, 316/12 confirm 240/23, 330/7, 347/8

confirmation 246/15, 312/20, 312/22, 336/11, 343/22, 343/24, 344/4, 348/7, 348/12, 348/13, 349/6, 349/11, 355/8 confirmations 327/1, 332/7, 332/10, 341/23, 347/10, 347/11, 348/24 confirmed 353/17, 356/17, 357/21 conformance 289/21, 300/17 connected 262/23 connection 222/3 connectivity 233/6, 233/25 consensus 216/15, 217/18 considerable 224/8, 317/25, 358/23 consistency 227/7 consistent 299/19, 349/19, 349/20, 356/8 consistently 241/2, 344/14 consumers 219/24 contact 253/23 contain 314/9 contained 262/11 contention 287/2 context 252/6 continue 225/21, 267/16, 294/22, 315/22 continues 254/9 contradictory 267/17 control 307/23, 309/10, 337/6 conversation 253/22, 254/6 converted 349/22 converting 249/5 copy 221/16 CORBA 238/25, 239/3 core 292/24 corporation 225/18 correct 231/23, 236/23, 237/12, 238/12, 241/12, 243/3, 245/22, 246/1, 254/16, 256/9, 264/5, 264/11, 267/24, 267/25, 274/5, 274/7, 279/5, 280/5, 280/7, 281/22, 282/5, 282/10, 284/9, 294/17, 294/18, 294/19, 296/11, 306/23, 308/18, 313/21 correction 264/8, 273/25 corrections 277/1 correctly 240/21, 280/10, 288/23, 302/3, 339/6, 339/9, 340/7, 344/12 correlates 341/18 cost 238/23, 254/23, 306/19, 306/24, 307/9, 315/17, 345/23 cost-effective 251/17 costs 238/24, 343/25 couch 279/15 count 291/18 counted 256/2 country 217/10, 217/16, 363/9 couple 225/2, 232/8, 255/11, 311/1, 316/23, 336/7, 340/22, 346/6, 362/7 course 224/8, 245/23 Court 276/17 cover 238/6, 298/2 covered covers 237/18 created 253/5 credit 365/2 critical 225/14, 226/1, 230/19, 316/2, 328/5, 328/6 crosses 287/17 CSR 212/20 cumulative 284/4 curious 348/24 currently 222/20, 227/1, 233/20, 238/10, 288/3, 289/21 customer 225/22, 226/21, 233/2, 233/7, 233/21, 233/24, 234/3, 235/23, 241/15, 242/13, 242/14, 242/15, 243/7, 243/8, 244/16, 247/12, 248/1, 248/2, 248/4, 248/8, 248/9, 249/4, 249/14, 250/5, 251/23, 256/14, 286/8, 286/9, 287/22, 289/6, 314/7, 314/10, 314/12, 314/14, 314/17, 323/4, 324/16, 327/18, 327/22, 333/5, 333/8, 337/17, 344/24, 344/25, 345/12, 347/19, 347/21, 350/20, 366/2 customer's 234/1, 248/11 customer-by-customer 221/11 customers 220/1, 225/15, 226/1, 236/16, 289/10, 299/1, 300/6, 306/19, 316/2, 321/22, 322/13, 323/5, 346/16 customers' 231/12, 231/15, 330/21 customized 346/12 cut 297/21 cycle 264/10, 324/19 D dashes 353/19

data 216/4, 216/11, 216/12, 217/23, 221/8, 221/20, 222/6, 234/7, 234/17, 235/8, 235/16, 236/1, 236/2, 253/14, 253/15, 253/19, 254/15, 257/2, 257/5, 257/7, 257/8, 260/22, 261/8, 264/14, 267/3, 269/9, 270/24, 274/24, 275/8, 286/7, 288/11, 291/10, 291/12, 292/22, 292/23, 293/7, 293/8, 295/10, 297/5, 298/14, 298/18,

299/15, 299/23, 302/12, 302/13, 302/15, 305/8, 305/14, 307/17, 307/23, 308/18, 311/12, 311/14, 311/16, 311/22, 311/25, 312/8, 312/18, 313/9, 313/15, 315/13, 315/14 database 221/16, 221/19, 221/23, 224/20, 227/19, 227/21, 231/14, 234/3, 314/18, 315/16 databases 216/6, 220/20, 221/6, 247/13, 253/7, 314/9 databases 226/10 DATE 212/15, 239/14, 239/16, 239/24, 240/3, 240/4, 240/6, 240/8, 240/15, 240/20, 241/1, 241/7, 241/10, 241/12, 241/14, 241/18, 242/9, 242/15, 243/2, 243/7 243/15, 245/20, 246/3, 246/8, 246/10, 246/13, 246/23, 246/24, 328/16, 328/20, 328/25, 329/22, 333/7, 343/20, 346/24, 348/5, 351/23, 352/9 dates 240/1, 347/16 day 221/25, 247/6, 258/16, 270/18, 342/16, 351/9, 353/22 days 234/16, 240/22, 241/5, 246/17, 299/21, 312/17, 314/14, 336/1, 341/7, 342/21, 342/22, 342/24, 347/11, 352/3, 352/4, 358/10 DHs 216/6 deal 216/24, 223/1, 239/2, 239/3, 343/6, 344/22 dealing 233/7, 242/12, 303/8, 314/6, 344/24 dealt 362/6 DEASON 212/12, 214/3, 221/18, 226/24, 228/9, 228/13, 230/24, 231/6, 234/19, 234/23, 235/3, 235/11, 241/6, 241/21, 241/24, 242/21, 242/24, 249/7, 249/12, 249/15, 249/19, 251/8, 252/15, 252/21, 258/4, 258/10, 259/5, 259/9, 259/12, 259/15, 259/21, 259/24, 267/23, 268/1, 268/9, 268/13, 268/17, 268/22, 269/16, 270/2, 271/9, 271/13, 271/21, 272/6, 272/9, 286/11, 286/18, 286/24, 288/14, 289/24, 298/5, 298/6, 302/1, 305/18, 306/3, 307/3, 307/7, 313/17, 313/24, 314/1, 320/6, 366/7 deceiving 352/16 December 253/10, 282/14, 312/10, 319/22, 335/25, 343/20, 343/21, 356/14 decide 236/5 decided 322/25 decision 303/1, 322/24, 365/11 decisions 303/14 Dec 336/19 default 316/16 deficiencies 298/12 define 325/22, 331/11, 359/11 defined 217/24, 322/22, 325/22, 326/4, 328/1, 332/9, 333/24 definition 214/14, 287/11, 287/15, 287/24, 289/16, 289/19, 290/17, 357/14 definitions 289/18, 289/22 definitive 353/5 degrade 254/9 delay 244/4, 244/5, 244/7, 244/8, 246/9, 254/5, 255/1, 255/20, 255/25, 271/16, 271/18, 322/20 delaying 331/23 delays 245/3, 269/7, 271/2, 273/18, 345/23 delivered 291/1 delivering 221/13 delivery 323/14, 323/22 demonstrate 319/9 demonstrated 275/1, 275/3 demonstration 261/1 demonstrations 247/17, 284/11 denial 287/21 denied Department 215/1 depend 241/4 dependency 265/4 dependent 229/21, 265/1, 266/6, 266/13, 266/19 depioy 332/17 derive 322/15 describe 216/2 described 215/2 describes 214/20 design 312/13, 312/15, 351/21, 352/23, 353/13, 353/15 designated 351/19 designed 216/21, 223/17, 225/16, 230/7, 237/17, 289/13, 323/21, 339/9 desire 359/19 desktop 238/21 detail 354/1, 354/3 detect 262/10, 269/6 determination 320/3 determine 231/3, 258/11, 258/14, 270/3, 283/22, 283/23, 294/2, 294/23, 299/10, 300/4, 306/10 determined 240/14 develop 217/11, 340/5, 361/10, 365/4 developed 222/22, 260/1, 265/24, 324/20, 334/15, 363/12 developers 261/4 developing 217/8, 238/3, 323/10, 323/19, 346/13, 352/18, 359/5, 363/13 development 217/13, 223/18, 228/23, 321/3, 321/8, 321/14, 322/6, 322/20, 323/8, 323/9, 323/24, 324/19,

325/5, 325/12, 325/14, 351/5, 354/4, 356/9, 358/3, 358/7, 359/11, 359/22, 366/5 developments 214/16 diagram 229/15, 255/11 dial-up 224/6 dlalog 319/22, 319/23 dlalogue 266/2, 267/19, 270/14, 279/23 difference 223/8, 237/5, 244/2, 253/8, 253/12, 253/21, 254/10, 255/5, 261/12, 300/11, 310/19 differences 318/14, 352/23 differential 256/17, 256/21 difficult 311/11 difficulty 353/20 digital 233/22 direct 220/15, 220/19, 222/3, 224/24, 266/19 direction 239/12, 362/19, 364/13 disaggregate 298/14 disaggregated 311/17 disagree 274/20, 307/19 disagrees 274/20 disappears 247/8 disconnect 330/24, 343/2, 347/12, 347/13 disconnected 344/21, 347/18 disconnects 330/25, 333/17, 343/4, 343/10, 346/4, 346/18, 346/19, 346/20, 347/16 discouraging 359/8 discriminatory 259/7, 259/22 discuss 260/11 discussed 343/11 discussing 220/7 discussion 239/18, 247/11, 270/18 display 249/17, 250/7 disposal 309/24 dispute 298/16, 298/17, 299/8, 308/7, 308/10, 308/13 distance 226/21, 255/12, 314/15, 360/24, 361/2 distinction 252/13, 351/21 distribution 312/11 dive 321/13, 353/25, 354/2 divide 304/25 divided 290/25, 300/8 documentation 260/25, 267/18, 270/12, 270/14, 270/17, 277/19, 279/22, 325/15, 325/17, 326/9, 326/14, 334/4, 363/14 documentations 326/5 documents 309/15, 319/22 DOE 257/9, 261/14, 273/3, 285/10, 285/15, 310/8 doesn't 221/25, 240/2, 240/7, 252/5, 255/20, 257/8, 263/14, 269/2, 275/10, 279/25, 289/21, 300/10, 301/4, 340/15, 342/10, 348/25, 349/1, 360/24, 361/18, 362/23, 362/24 dollars 306/15 door 300/13, 302/20, 302/22, 303/3 double 224/20 doubt 342/9 download 220/19, 220/24, 221/6, 221/7, 221/21, 221/22, 222/1, 227/18 downloading 277/2 downstream 324/12, 332/15, 332/21 draw 360/9 drawn 252/4 drives 345/23 driving 359/12, 362/20 drop 285/20, 294/9, 294/11, 294/12, 294/13, 294/16, 302/22 dropped drops 272/21, 273/23, 274/1, 274/6 dual 226/10 during 320/10, 333/13, 333/22, 335/16, 357/16

E

e-mail 347/7 E-type 299/16 easier 291/11, 345/1 easily 250/10, 250/17, 318/11, 358/3 Easiey 212/17 easy 214/23, 249/3 EBI 225/8, 225/24, 227/4, 233/9, 245/1, 314/24, 315/20 SIS/20 EC-LITE 221/1, 222/17 ECI 220/25 ECIP 228/17, 228/18, 230/9 ECIP-1 228/22 ECIP-2 228/23 ECIP-3 economically 230/20 ECTA 225/10, 225/24, 230/18, 315/24, 324/20, 351/24, 352/4 331/24, 352/8 EDI 223/7, 223/8, 223/9, 224/15, 224/16, 229/4, 229/5, 229/7, 229/23, 229/24, 230/4, 230/10, 230/11, 235/15, 236/8, 236/17, 236/24, 237/1, 237/9, 237/11, 237/14, 237/16, 237/25, 238/1, 239/4, 239/9, 244/19, 246/11, 260/16, 260/19, 264/23, 264/25, 266/5, 266/9, 270/11, 270/18, 277/18, 282/3, 285/9, 287/14, 287/17, 293/18, 298/14, 304/16, 304/17, 323/20, 325/17, 325/23, 326/3, 326/18, 332/4, 336/8, 337/9, 338/2, 338/3, 338/21, 339/19, 339/20, 339/25, 357/6, 357/16, Sos/15, 365/17, 365/22, 365/25 EDI-PC 224/2, 229/3, 229/13, 235/25, 237/2, 260/16, 265/8, 266/4, 266/18, 266/19, 277/21, 304/18 edit 262/16, 263/2, 265/1, 265/2, 265/12, 266/20, 266/25, 267/2, 269/3, 277/20 edited 245/24, 272/19, 310/18 editing 229/11, 261/12, 261/15, 262/8, 263/7, 263/14, 268/4, 270/6, 339/19, 340/5 editor 303/21 editors 263/4, 263/12 edits 229/19, 229/21, 263/1, 263/10, 264/19, 264/20, 265/20, 266/7, 267/12, 269/5, 270/19, 273/4, 277/23, 310/11, 310/12, 310/17 effective 246/11, 359/22 efficiency 321/19 efficient 225/15, 230/20, 300/5, 316/2, 318/24, 322/2 efficiently 250/13 effort 296/3, 323/24, 330/4 efforts 321/14 eight 214/12, 241/17, 241/19, 246/17, 254/8, 258/23, 340/13, 358/16 elect 230/12 elected 322/19, 324/18 electronic 225/6, 225/11, 228/18, 232/5, 263/19, 273/16, 273/16, 275/16, 293/19, 293/22, 294/2, 296/14, 303/8, 303/13, 315/24, 318/16, 324/5, 324/20, 326/25, 328/8, 328/23, 328/24, 329/4, 329/12, 329/13, 331/14, 332/6, 347/6, 349/11, 357/7, 357/18, 357/23 electronically 269/10, 271/6, 275/12, 282/24, 285/17, 285/19, 286/15, 288/16, 289/4, 290/21, 292/11, 293/13, 300/9, 303/5, 305/13, 318/6, 328/10, 322/2, 332/13, 326/14, 326/1 335/12, 337/19, 337/21, 338/20, 338/25, 339/4, 339/8, 339/14, 339/15, 341/5, 349/9 elects 260/5 element 240/11, 261/10 elements 215/9, 215/15, 216/3, 216/5, 216/14, 217/23 eliminates 309/16 enamored 319/11 encounter 283/10, 285/19, 364/9 encountered 269/11, 364/9 end 225/23, 232/19, 233/13, 235/17, 242/19, 244/1, 263/7, 270/5, 279/8, 279/13, 281/12, 281/13, 284/6, 284/13, 309/8, 321/22, 337/3, 337/4, 337/7, 337/9, 340/6, 359/20, 361/7 end-to-end 327/5, 327/6, 327/8, 349/21 ended 278/17 ends 249/11 English 248/18, 248/19, 248/20, 248/21, 248/25, 249/6, 249/11, 250/6, 251/18 enhance 321/18, 328/15 enhanced 357/22 enhancements 327/12 enjoys 260/4 ensure 309/6 enter 231/11, 249/1, 267/12, 340/10 entered 220/9 entering 224/23 entity 252/8, 252/17 entrants 217/1 entries 315/14 entry 216/13, 220/6, 224/21, 225/20, 226/10, 315/13, 321/12 environment 325/11, 326/15, 327/9, 327/14, 330/10, 350/5, 350/15, 351/3, 351/6, 351/10 equal 267/2 equitable 309/22 equivalency 219/25 equivalent 348/22 Ernest 360/1 error 263/22, 269/6, 269/11, 269/12, 271/5, 272/9, 272/10, 272/12, 273/3, 273/5, 273/25, 274/5, 275/25, 280/2, 281/18, 283/4, 283/7, 283/23, 285/2, 285/19, 286/3, 286/6, 286/19, 286/20, 291/3, 294/14, 294/16, 294/18, 298/17, 299/8, 299/11, 299/12, 300/15, 302/6, 305/23, 305/24, 306/23, 308/11, 331/15, 331/16, 331/20, 336/25, 337/15, 340/23, 346/22, 347/5, 347/9 errors 234/12, 249/2, 262/11, 269/17, 269/21, 270/11, 272/14, 274/5, 275/19, 275/23, 276/5, 276/23, 277/5, 277/20, 280/1, 280/4, 281/9, 281/10, 281/15, 282/24, 284/21, 284/22, 289/8, 294/13, 294/18, 295/17, 299/17, 299/24, 301/12, 301/14, 301/20, 301/24, 302/2, 302/8, 303/16, 304/21, 304/23, 305/9, 305/10, 305/20, 305/21, 305/25, 306/6, 306/9, 306/13, 306/18, 308/3, 308/4, 308/13, 308/15, 308/16, 309/7, 313/19, 313/21, 315/14, 326/5, 335/3, 335/6, 335/8, 337/14, 337/24, 352/7, 360/12, 360/13, 360/14, 364/1 Esplanade 212/18 essence 221/3 established 363/7

establishing 253/23 estimated 241/10 estimation 234/12 evaluate 215/13, 291/15 evaluated 315/22 evaluation 226/4, 317/17 exchange 217/3 exchanged 226/22 excluded 291/3, 342/8 excluding 353/19 exclusion 291/2, 298/20, 298/24, 300/14, 300/15 excuse 263/18, 339/18 exercise 292/9 exhaustive 297/19 exist 240/7, 298/13, 352/8, 354/7 existed 302/6 existent 331/4, 347/25 existing 354/12, 354/17, 354/20, 354/24, 355/6, 358/14 exists 290/18, 318/4, 324/23 expanded 287/15 expansion 287/24 expect 232/23, 242/11, 268/15, 333/6, 336/15, 337/20, 338/24, 339/7, 339/13, 339/14, 341/8, 342/14, 343/13, 345/25, 346/16, 347/15, 350/7, 350/9, 360/14, 360/16, 363/22 expectation 334/14, 334/18 expected 340/25, 343/14 expecting 332/12, 337/12, 345/13 expedite 321/10, 361/4 expedited 359/17 expeditiously 323/16 expenses 289/7 expensive 237/17, 238/2, 238/16 experience 231/15, 241/1, 278/18, 302/11, 321/23 experiencing 269/7 expertise 251/16 expired 246/10 explanation 233/15, 310/4 explanations 273/2 extend 350/21 Extended 226/13, 327/19 eye 218/13 F

face 302/7, 354/25 facetious 305/20 facilities 224/10, 330/17, 345/4 facilities-based 216/14 facility 345/6 facility-based 314/12 facing 218/8 facit 215/1, 232/2, 234/17, 271/2, 280/18, 293/1, 305/10, 307/23, 322/25, 325/14, 326/15, 326/24, 328/7, 333/15, 336/25, 337/2, 338/6, 339/11, 351/18, 352/6, 352/17, 353/6, 354/6, 354/22, 356/10, 356/17, 356/20, 356/22, 357/22, 358/18, 364/5 fail 219/24, 269/5, 269/6 falled 234/11, 270/15, 342/6 failures 217/7, 317/12 fair 258/1 fall 258/20, 280/20, 350/19 falls 246/2, 287/23, 296/23, 316/6 fashion 250/6, 268/6, 272/13, 272/15 fat 340/11 fatal 283/4, 283/9, 283/19, 283/20, 284/3, 294/13, 303/9, 304/5, 305/6, 308/10 fatals 284/22 fault 270/17, 303/2 fax 224/11, 292/15, 292/20, 302/24, 332/18, 338/4 faxes 224/10, 296/9 FCC 274/20, 287/13, 289/25, 290/4, 290/10, 295/24, 298/11, 308/3, 311/1, 312/24, 316/20, 316/22, 316/23, 317/7, 318/23, 319/19, 319/22, 335/20 FCC's 289/19, 317/8, 317/10 fear 359/14 features 221/4, 221/12, 221/23 February 220/7, 220/10, 292/22, 292/23, 293/9, 293/14, 293/23, 295/4, 295/7, 295/8, 301/13, 302/13, 302/17, 312/13, 313/3, 313/14, 319/2 feed 324/9 fell 303/13, 357/2 field 269/18 figure 217/16, 280/22 filed 316/24, 364/6 fill 260/20 filtering 221/14 find 221/12, 252/3, 263/22, 267/16, 270/16, 277/6, 278/25, 279/24, 280/11, 286/12, 298/11, 332/17, 359/13 finding 280/15 findings 327/4 finds 273/4 fine 234/16, 268/13, 320/11

fingers 340/11 firm 242/4, 242/14, 246/14, 312/20, 312/22, 326/25, 332/9, 336/11, 341/23, 343/22, 343/23, 344/4, 347/10, 348/6, 348/12, 348/23, 349/6, 349/10, 355/8 five 214/16, 215/17, 215/18, 218/17, 254/7, 256/16, 319/3, 319/24, 322/7, 340/9, 341/7 fix 277/8, 349/3, 352/1, 355/15, 355/17, 358/21 fixed 239/21, 327/4, 352/11, 355/14, 355/20, 357/25, 358/25 flaw 259/16, 284/4, 352/1 flawlessly 346/24 flaws 284/4 flexible 238/22 FLORIDA 212/1, 212/18, 285/10, 362/6, 362/13 RIOR 234/11, 263/11, 286/16, 286/19, 286/22, 287/4, 288/3, 289/1, 289/14, 290/24, 298/24, 334/2, 334/4, 334/5, 334/6, 334/13, 334/17, 343/14, 365/9 flow-through 214/18, 214/19, 234/10, 235/8, 235/9, 236/1, 261/16, 263/9, 266/8, 275/24, 289/3, 289/4, 289/10, 289/12, 289/19, 290/20, 291/16, 293/25, 296/13, 296/19, 298/12, 300/3, 300/21, 300/24, 301/2, 301/6, 303/15, 308/22, 310/2, 310/21, 310/22, 310/24, 317/15, 318/1, 319/3, 331/6, 333/25, 334/11, 334/20, 336/15, 349/15, 356/13, 356/18 flowed 346/23 Noved 340/25 flowing 313/12, 341/15 flows 242/9, 244/12 flush 364/1 FOC 246/25, 311/17, 313/20, 313/23, 342/22 FOCed 313/6 FOCs 243/10, 311/22, 335/10, 344/1, 344/14, 346/22, 346/24 focus 215/21, 224/22 folks 216/24, 218/14, 218/21, 225/21, 234/14 follow 270/15, 270/16 follow-up 362/8 foliows 290/6 form 319/9 format 229/23, 239/9, 249/16, 249/22, 249/24, 251/12, 363/7 formats 217/24 forms 216/13 formula 308/5 formulas 302/10 formulate 262/23 fortunately 343/12 forums 288/12 found 220/23, 232/2, 232/3, 280/12, 283/12, 284/22, 341/10, 343/16, 352/21 four 216/16, 217/20, 242/19, 242/20, 256/16, 261/8, 277/11, 291/5, 298/13, 325/19, 341/23, 344/2 FPSC 212/21 frame 225/13, 304/17, 327/6, 336/1, 344/2, 346/13, 352/21 frames 342/18 front 244/21, 249/11, 263/6, 270/5, 279/8, 279/13, 284/13, 300/13, 302/20, 309/8, 340/6 front-end 227/23, 228/4, 230/2, 264/19, 265/6, 270/19, 277/20, 303/19, 303/21, 339/19, 340/17 frustrated 254/2 FUEL 263/12 fuller 224/16 function 214/20, 224/13, 240/10, 340/16 functionalities 231/25, 360/19 functionality 218/19, 222/19, 229/11, 232/4, 233/10, 236/9, 239/10, 318/15, 322/17, 323/20, 325/2, 328/5, 328/19, 328/20, 328/22, 329/7, 329/22, 330/6, 330/7, 351/18, 356/15, 356/24, 359/1, 363/11, 365/24 functions 214/17, 215/17, 215/18, 215/19, 215/20, 223/5 funnel 291/21, 292/24 funny 253/13 future 236/2, 240/15, 277/18

G

gage 362/12 gamete 336/22, 363/10, 363/17 gap 260/21, 269/4 gaps 364/18, 364/19 GARCIA 212/12, 240/9, 240/18, 240/20, 243/20, 243/22, 243/25, 247/19, 247/22, 275/18, 276/4, 276/8, 276/11, 276/15, 276/19, 277/9, 277/25, 278/9, 278/12, 278/14, 278/16, 278/22, 279/1, 279/6, 279/17, 280/5, 283/14, 283/18, 283/24, 284/3, 284/10, 284/15, 284/18, 284/24, 292/17, 297/7, 297/10, 297/14 gates 244/22 gateway 216/25, 218/2, 218/4, 218/6, 228/17, 229/6, 229/14, 230/3, 230/4, 239/4, 239/5, 244/21, 255/23, 256/1, 256/8, 339/20 gateways 216/17, 216/24, 217/8, 217/11, 218/2, 227/15, 229/8, 255/13 gathering 335/19

gee 227/20 generate 325/25 Georgia 220/10, 289/17, 290/18, 308/2 gingerly 350/25 glad 275/24 glosses 296/2 goal 219/22, 321/22, 322/3 goes-out-of 297/1 grab 335/13 grand 293/15 greater 255/12, 258/7, 299/1, 323/3 greatest 261/3 Green 320/23 grossed 302/19 ground 252/20, 320/25, 363/14 grounded 330/2 group 243/15, 251/11, 251/20, 272/22 groups 251/22 GTE 218/21, 232/22, 240/2, 240/6, 246/19, 247/3 guess 249/19, 255/10, 258/5, 270/2, 271/22, 275/18, 277/13, 305/4, 305/19, 343/11, 348/24, 349/4, 360/18, 360/20 guide 220/16, 241/3 guiding 300/17 guinea 235/12

H

habit 365/25 half 241/16, 243/10, 243/12, 297/9, 364/15 half-page 218/14 hallow 317/7 hand 302/23 hand-holding 350/16 handleable 250/17 handled 331/8, 331/9, 333/21, 357/13 handling 316/8, 318/7 hands 298/5 harbor 319/14 hard 234/23, 311/18 hardware 225/25, 230/17 harsh 317/23 head 362/19, 364/14 headaches 345/24 held 307/22 help 217/10, 282/21, 321/9 helpful 362/12 helping 307/10 helps 217/12 high 225/17, 261/16, 275/15, 285/8 higher 258/7, 342/20 highlighted 317/14, 318/20 historical 325/7 Historically 253/8, 253/15, 253/20 history 350/8, 364/5 hit 359/12, 359/21, 360/21, 361/9, 364/2 hits 263/3 hold 302/18, 320/19, 320/20, 322/20, 322/24 holidays 342/8, 342/11, 342/19 hooking 231/22 hope 359/6 hoping 349/25 horizon 322/15 host 228/2 hotel 254/1 hour 297/9, 320/9, 341/25, 342/2, 344/2 hours 240/5, 241/17, 241/20, 242/19, 242/20, 243/10, 243/15, 246/17, 257/20, 257/21, 257/22, 257/23, 258/2, 258/11, 258/16, 258/19, 258/24, 259/2, 259/10, 259/19, 269/13, 269/14, 272/23, 313/9, 341/23, 341/24 hours' 243/12 huge 267/13 human 224/18, 226/7, 254/18, 260/8, 260/14, 271/7, 271/13, 272/5, 275/14, 281/10, 281/13, 286/22, 287/5, 288/1, 288/9, 290/22, 334/17, 345/21, 349/17

IC 220/17 ID 348/6, 348/10, 348/11, 348/19, 348/21, 349/6, 349/12, 354/18, 354/21, 355/17, 355/23, 355/24 idea 228/12, 330/13 identical 268/7 identifiahle 358/4 identification 364/8 identified 283/21, 316/25, 331/3, 333/14, 335/24, 336/4, 336/5, 336/8, 336/11, 341/12, 346/11, 351/5, 351/17, 352/11, 352/17, 358/6, 358/13, 358/17, 358/24, 360/12, 361/9 identifier 348/14 identify 326/5, 326/8, 348/1, 348/18, 348/21, 350/14, 360/8

I

identifying 335/6, 335/17 identity 307/12 ignore 277/4 II 298/11, 298/23, 318/23 ILECs 217/9, 240/2, 246/19, 246/21 ILNP 349/23 immediate 365/7 impact 271/23, 281/6, 298/20, 307/24, 323/3, 350/20 impacted 318/21 impacting 331/24 impacts 285/5, 354/20 impatient 254/4 implement 329/5 implementation 214/10 implemented 228/7, 228/24, 280/19 implementing 215/20 imply 278/13, 278/15 imposing 307/9 impression 251/21 improvement 272/2 improvements 313/1 improving 275/10, 301/7 inaccuracies 267/17 inadequacies 365/15 inadequate 303/19, 303/20, 359/24 inaudible 249/13, 270/21, 273/13, 276/11, 276/13, 276/16, 280/24 incentive 239/11, 305/22, 305/25, 361/8 inconclusive 319/8 inconsistency 326/13, 333/16, 344/9 incorporate 262/16, 266/20 incorrect 269/17, 271/3, 280/10, 280/14, 280/17 incorrect j 249/5, 337/24 increase 271/17, 299/23, 302/1, 302/7 increased 301/11 increasing 299/4, 299/5, 299/6 independent 309/13 independently 217/5 indicated 241/12, 251/10 indicates 313/11 Indicating 259/1, 269/9, 271/16, 275/8, 294/12, 297/6 industry 215/5, 216/16, 216/22, 217/11, 217/12, 217/13, 217/14, 217/17, 217/18, 218/9, 219/25, 238/7, 267/20, 286/6, 324/22, 325/22, 328/1, 329/18 inferior 220/3 inform 353/16 information 215/8, 217/3, 220/24, 221/15, 221/17, 230/9, 234/24, 235/1, 235/6, 238/19, 247/12, 247/13, 230/9, 234/24, 235/1, 235/6, 238/19, 247/12, 247/13, 247/14, 248/1, 249/21, 250/23, 251/10, 252/23, 252/24, 253/4, 257/10, 259/6, 259/18, 265/5, 265/25, 267/17, 269/18, 274/16, 275/4, 276/2, 279/11, 281/14, 288/11, 296/13, 296/18, 297/20, 314/10, 314/11, 314/13, 322/14, 324/14, 325/20, 329/25, 332/13, 335/14, 335/19, 340/6, 340/11, 341/19, 342/16, 353/11, 353/14, 353/17, 353/18 informed 345/1 informed 355/1 ingenious 228/14 inherent 340/22 initial 220/6, 280/19 inject 275/13, 281/12 input 249/5, 263/15, 272/10, 276/24, 299/12 inputer's 263/2 inputs 339/20, 339/25 inputting 310/8, 310/10, 340/6 inquiry 253/16 install 345/9 installation 241/11, 311/17, 318/10, 337/6, 343/23, 345/6, 345/12 installations 346/21 installed 330/23, 343/19, 345/12, 355/9 installs 343/9 instructions 264/5 integratable 224/17, 236/22, 236/25, 237/2, 238/11, 260/17 integrate 227/22, 230/10, 230/13, 239/4, 260/25 integrated 227/23, 228/1, 230/1, 238/8, 329/7 integrating 223/2 integration 226/7, 228/19, 230/12, 260/10, 281/7, 281/12, 309/8, 317/23, 319/3 intention 271/20 interactive 322/21, 322/23 interconnection 216/14, 223/22, 292/2, 341/22 interest 276/5, 276/9, 276/20, 279/3, 289/11 interexchange 225/7 interface 214/15, 221/1, 222/15, 222/17, 222/21, 223/7, 223/22, 224/19, 225/4, 225/6, 225/24, 226/3, 226/20, 227/1, 227/4, 228/1, 229/1, 229/8, 229/12, 229/13, 230/3, 230/18, 232/5, 233/10, 233/17, 234/13, 235/14, 235/15, 236/8, 238/8, 257/4, 262/7, 262/9, 262/10, 262/17, 263/13, 265/3, 265/12, 265/21, 267/1, 279/21, 281/20, 287/17, 287/18, 303/19, 314/25, 315/25, 318/16, 324/2, 324/21, 324/24, 324/25, 325/10, 325/13, 325/24, 326/1, 326/11, 326/14, 327/11, 327/14,

328/3, 328/18, 329/7, 330/4, 331/5, 331/8, 331/14, 332/4, 332/23, 333/24, 334/2, 334/17, 338/21, 339/1, 340/3, 341/15, 346/7, 346/11, 346/13, 348/4, 350/3, 350/8, 350/12, 351/1, 351/5, 351/12, 351/15, 351/18, 351/22, 352/4, 352/19, 354/10, 355/7, 356/6, 356/12, 357/6, 357/9, 357/11, 357/23, 358/9, 358/22, 360/15, 363/13 interfaces 220/5, 220/8, 220/12, 220/14, 220/22, 221/10, 221/14, 223/21, 225/11, 226/11, 235/7, 236/8, 239/4, 244/18, 245/2, 260/1, 260/12, 260/24, 277/22, 25/25, 321/11, 321/16, 321/20, 322/2, 346/15, 359/5, 359/23, 360/3, 362/21, 363/17, 363/20, 364/19, 364/20, 365/1, 365/4, 365/12 interference 311/20, 312/1, 318/13, 318/16, 320/4 interim 220/14, 222/10, 224/4 internal 214/15, 231/2, 273/16, 315/16, 319/11, 360/2 internalize 276/24 internally 217/6, 286/25, 287/2 internals 311/18 Internet 237/21, 314/16 interpretation 349/16 interpreted 280/8 interval 239/21, 241/2, 241/3, 246/15, 256/25, 278/24, 285/1, 311/6, 311/9, 311/25, 312/14 intervals 241/2, 256/15, 274/16, 311/5, 311/12, 311/14, 312/9, 312/11, 312/12, 312/14, 312/25, 313/4, 318/10 intervene 282/25, 283/12, 283/15, 285/2, 285/14, 285/22, 288/21, 299/10 intervened 284/23, 288/25 intervening 278/21 intervention 260/8, 271/7, 271/13, 272/5, 275/14, 275/16, 283/1, 283/14, 285/6, 285/7, 286/23, 287/5 288/1, 288/6, 290/22, 331/9, 334/11, 334/18, 349/17 invalid 331/10, 331/11, 331/18, 334/24, 336/21, 337/19, 337/21, 338/8, 338/9, 338/10, 338/12, 338/17, 339/2, 339/7, 339/12, 339/15 inversions 223/13 invested 239/8 investment 239/10 issue 227/7, 239/15, 240/10, 322/12, 324/23, 330/25, 336/9, 336/12, 336/16, 341/12, 341/13, 341/14, 343/13, 348/3, 352/25, 353/2, 354/11, 358/15, 358/22, 358/24, 361/11 issued 290/12, 295/16, 300/8, 300/13, 334/1 issues 240/8, 256/12, 260/9, 308/25, 318/22, 319/3, 319/24, 321/7, 322/16, 324/2, 327/2, 327/4, 335/25, 336/3, 336/6, 341/10, 345/11, 345/22, 346/12, 347/19, 347/20, 347/22, 349/25, 350/1, 354/1, 355/14, 358/3, 358/5, 358/7, 358/11, 358/25, 360/19, 364/11, 365/20 **ITEM 213/3** items 318/20 iterations 220/22 IXC 223/23 J

JACOBS 212/14, 221/2, 224/12, 224/22, 225/1, 231/21, 232/11, 232/18, 232/21, 233/4, 235/19, 237/19, 245/19, 245/23, 246/7, 264/7, 267/11, 267/22, 272/16, 278/3, 280/6, 281/16, 281/19, 281/23, 282/1, 287/6, 287/25, 288/4, 288/8, 319/18, 334/8, 339/18, 339/23, 365/13, 365/19 January 222/18, 222/23, 253/11, 253/17, 282/12, 312/11, 313/3, 325/14, 330/25, 332/23, 333/20, 336/1, 352/19, 356/16, 356/21 Jay 214/7, 308/23, 308/24, 333/11, 341/19, 360/11 jeopardies 324/7, 328/12, 328/13, 329/1, 354/6, 358/19 jeopardy 329/19, 344/18 job 265/5 JOE 212/12 JOHNSON 212/13, 236/4, 236/10, 236/21, 236/24, 237/4, 237/25, 238/9, 238/13, 243/4, 243/18, 244/6, 245/4, 245/7, 245/9, 245/14, 245/17, 246/5, 246/18, 246/25, 250/18, 250/21, 250/24, 251/5, 251/7, 254/11, 254/13, 254/17, 254/20, 254/24, 255/1, 255/3, 255/9, 255/17, 255/22, 255/24, 256/2, 256/5, 256/8, 256/10, 262/14, 262/21, 263/17, 263/21, 264/2, 264/12, 264/16, 265/9, 265/15, 265/23, 266/3, 266/12, 266/15, 267/5, 267/9, 273/12, 273/15, 273/20, 274/8, 274/12, 274/22, 274/25, 281/1, 282/3, 282/6, 282/11, 282/16, 282/20, 295/2, 295/6, 295/9, 295/12, 295/21, 295/24, 296/7, 296/12, 296/17, 301/8, 301/19, 301/23, 303/25, 304/6, 304/10, 304/14, 304/19, 329/3, 329/11, 329/15, 329/19, 338/18, 338/23, 339/10, 339/16, 349/8, 349/18, 355/15, 355/19, 356/3, 360/17, 361/14, 361/17, 361/21, 362/2 jointly 222/16 JULIA 212/13 July 222/18, 226/5, 316/19, 350/3 jump 301/10, 336/22 June 325/21, 350/3, 351/6, 357/17 jurisdiction 293/3

### Justice 215/1 K key 316/23, 323/1, 323/6, 356/8 kick 324/12, 324/14 kicking 337/24 KIMBERLY 212/20 knowledge 219/9, 222/24, 266/10 knows 286/7, 347/25 KPMG 351/8, 364/6 Ι. LA 298/23, 318/23 lack 226/6, 251/19, 255/13, 281/6, 317/23, 322/16. 331/5, 334/20, 341/17, 350/15, 351/3, 358/4, 360/18 land 324/11 landscape 278/5 language 249/22 large 225/15, 233/23, 235/23, 237/17, 238/22, 238/24, 260/9 larger 238/7, 256/20 later 223/4, 223/10, 226/9, 262/3, 290/13, 291/11, 296/5. 333/18 Laughter 228/11, 312/6 layer 354/1 layers 354/2 LCSC 219/4, 219/5 LD 359/20, 361/7 learning 297/24 leave 226/25, 230/24, 298/4 LECs 232/22 left 227/11, 292/6, 316/1 leg 230/6 legal 252/7 lengthens 271/25 LENS 219/3, 220/25, 222/11, 222/14, 222/19, 223/25, 224/13, 224/18, 224/19, 224/22, 227/16, 235/25, 236/20, 236/21, 236/22, 238/10, 239/17, 257/12, 260/14, 260/17, 262/7, 262/10, 262/13, 262/15, 262/17, 262/19, 262/20, 262/24, 262/25, 263/6, 263/20, 263/25, 264/4, 264/17, 267/24, 268/2, 268/25, 270/8, 277/21, 285/9, 287/17, 293/21, 298/15 LEO 244/22, 263/4, 283/11, 284/5, 294/15, 304/25 LEON 212/14 LESOG 244/22, 263/4, 264/9, 283/11, 283/12, 284/5, 294/16, 305/1 lessen 365/4 letter 269/23, 270/1, 275/21, 275/22, 290/12, 318/25, 319/15, 319/19, 356/18 level 263/14, 275/16, 277/22, 300/2, 308/10, 308/11, 321/24, 322/1, 327/23 leverage 359/18, 361/11, 361/15, 361/19 liberty 224/12 life 362/10 light 356/20, 356/22 limit 298/1 limitation 358/13 limitations 260/19, 260/20 limited 223/4 line 227/25, 231/23, 233/23, 252/4, 268/23, 272/6, 320/19, 320/20, 328/25, 348/21, 354/12, 354/17, 354/19, 354/24, 355/6, 355/16, 358/13 line-up 284/16 lines 330/23, 330/24 link 233/23 list 287/18, 318/20, 348/2, 362/4 listed 287/6 listing 279/10 lists 269/24, 276/1 literally 349/16 little 219/4, 224/5, 233/15, 253/19, 275/7, 291/11, 292/9, 314/25, 317/7, 348/7, 352/16, 359/17 live 231/22, 232/14 LNP 313/10, 328/10, 333/21, 334/3, 334/4, 334/6, 334/16, 349/23, 350/13, 354/6, 356/25, 357/2, 358/19, 358/20 load 249/17 local 225/8, 225/12, 226/21, 227/19, 228/1, 292/20, 300/8, 314/15, 323/22, 326/16, 326/18, 327/7, 328/8, 329/1, 330/19, 336/10, 349/21, 350/6 long-term 218/7 loop 241/4, 330/19, 330/20, 333/21, 334/5, 334/6, 334/15, 334/16, 336/10, 337/6, 343/3, 344/20, 348/9 351/19, 353/7, 353/12, 353/14, 353/15, 356/19, 357/2, 358/22 loops 313/10, 323/23, 334/3, 348/22, 351/22, 351/24, 352/5, 352/14, 352/20, 352/22, 352/23, 352/24, 353/2, 353/6, 354/9, 357/24 lose 225/21, 361/11 Louisiana 289/17, 290/18, 298/11, 308/2, 316/24

low 301/14 LSRs 292/1, 292/9, 293/13, 293/18, 300/12 LUDM 227/19 lump 322/8 lumped 225/2, 324/3 lunch 297/16, 366/8, 366/10 lying 250/11 machine 224/17, 224/19, 225/16, 226/8, 233/18, 233/19, 234/1, 248/24, 249/17, 250/16, 260/14, 285/15, 285/25 machine-to-machine 281/20, 315/21, 316/5, 316/6, 316/13, 321/15, 339/1 machines 238/23 mail 292/16, 292/20, 296/9, 302/24 main 288/4, 288/5, 288/7, 304/17, 346/13 mainframe 223/8, 237/1, 237/11, 237/14, 237/16, 238/1, 238/24, 239/9, 260/19, 264/23, 264/25, 266/5, 266/10, 270/18, 282/3 maintain 224/5, 224/20, 229/2 maintained 220/21 maintaining 337/17, 365/25 maintenance 214/18, 225/3, 226/3, 227/2, 227/6, 232/1, 233/14, 258/15, 258/19, 314/3, 314/5, 314/23, 318/12, 322/10, 324/15, 324/17, 324/21, 328/11, 348/16, 351/13, 351/15, 354/10, 357/23, 358/22 major 338/19, 349/22 manage 216/3 managed 222/8, 309/11 management 219/18 manager 228/16 manages 226/20 managing 242/17 manipulate 221/8, 338/2 manipulating 337/12 manner 291/16, 317/19, 318/24 manual 215/12, 224/9, 248/20, 267/14, 273/17, 273/21, 275/16, 284/13, 285/6, 285/20, 290/22, 292/15, 292/25, 293/1, 293/6, 294/9, 295/2, 296/3, 296/5, 296/6, 296/8, 296/10, 303/13, 318/2, 318/3, 318/7, 331/9, 332/1, 334/11, 347/6, 349/12, 349/15, 350/19, 352/15, 357/2, 357/13 manually 271/4, 285/8, 285/18, 288/17, 292/10, 292/19, 296/24, 299/10, 302/23, 303/6, 305/14, 318/5, 326/1, 326/19, 331/8, 332/16, 333/22, 335/11, 341/6, 353/7, 357/13 many-to-one 216/19 map 317/3 maps 326/3 March 225/13, 234/9, 235/9, 235/17, 261/17, 262/9, 263/19, 266/9, 269/9, 275/8, 283/25, 284/20, 285/12, 292/10, 292/22, 295/3, 300/12, 300/16, 300/20, 301/13, 302/12, 302/16, 302/18, 305/8, 313/3, 313/9, 313/14, 328/17, 347/4, 357/7, 358/16 marked 313/1 market 216/13, 220/6, 220/10, 225/20, 316/1, 321/11, 323/13, 323/15 masks 258/1 mass 225/14, 226/1, 230/19, 316/2 match 315/15 math 292/9, 294/25 Matter 212/4, 237/9, 291/16, 301/5, 306/23, 325/14 MCI 213/6, 216/23, 237/14, 320/7, 320/10, 320/12, 320/24, 321/3, 321/5, 321/16, 321/19, 321/23, 322/6, 322/19, 323/9, 324/9, 325/24, 329/17, 330/3, 330/12, 330/17, 331/11, 331/23, 332/3, 333/3, 337/7, 340/23, 341/13, 341/21, 342/1, 349/24, 362/23, 364/15, 365/16, 366/4 meaningful 317/19 meaningfully 215/16, 321/21 meaningless 252/14 measure 219/20, 289/13, 289/21, 300/3, 313/20 measured 219/15, 289/12 measurement 219/18, 255/15, 255/19, 257/15, 258/25, 274/19, 291/17, 294/22, 317/21 measurements 219/16, 219/19, 256/13, 311/4, 319/4, 333/12 measures 290/20, 309/20 measuring 313/18 mechanically 275/12, 313/6 mechanism 306/12 mechanisms 323/3 mechanization 261/9, 262/2 mechanized 253/17, 261/7, 261/8, 261/23, 283/2, 283/3, 283/5, 283/7, 284/16, 313/2, 313/8, 321/19 medium 238/16 meet 274/13, 314/19, 322/3, 340/15, 342/5, 342/6, 344/19 memo 279/9 memorized 276/2, 287/18 mention 267/13

Mentioned 233/16, 322/19, 333/19, 342/25, 351/14, 360/23 menu 221/4 merged 223/16 message 217/24, 263/24, 264/6, 273/7 met 329/10 method 323/14 methodology 236/5, 299/13, 299/17 methods 309/6 metropolitan 349/22 microphone 270/22, 280/25, 281/4 mid 238/4, 299/20, 319/22 middie 218/6, 306/5, 309/18, 320/11 migrate 248/8, 327/20 migrates 343/8, 354/15 migration 248/5, 329/12 migrations 248/6, 327/16, 327/17, 328/1, 328/4, 328/16, 330/20, 354/15 mike 281/2 mind 310/19 minimize 306/12, 309/7 minimizing 306/17 minimum 244/19, 244/20, 244/23, 321/25, 358/10 minus 291/9 minute 296/7, 311/15 minutes 244/17, 244/20, 269/13, 269/14, 269/15, 274/7, 297/11 MISCELLANEOUS 213/2, 225/4, 353/12 miss 249/4, 359/21, 360/21, 361/10, 364/2 miss. I 359/12 missed 258/5, 328/12, 344/18 missing 244/7, 297/1, 330/6, 332/25, 336/11, 338/19, 348/6 mission 312/5 mistake 263/23 mistakes 277/10 misunderstanding 251/25 mode 222/25, 242/16 modern 238/19 money 306/20 month 222/2, 225/22, 253/17, 299/19, 300/15, 305/7, 305/10, 307/1, 329/23, 350/2, 352/1 month's 253/13 months 225/19, 275/15, 278/17, 293/7, 299/24, 310/6, 310/21, 315/20, 325/1, 325/13, 325/19, 326/10, 328/18, 346/6, 358/16, 358/21, 359/14 morning 214/4, 214/7, 214/8, 214/10, 214/11, 278/9, 320/22, 334/9, 339/24, 341/20, 353/1 motel 254/1 motivate 360/22 motivation 360/25 move 230/22, 235/24, 320/14, 325/9, 343/9, 358/24, 361/11, 361/24, 363/1, 363/22, 364/2 moved 224/14 movement 363/3 mover 221/20, 222/6 moves 362/22 moving 278/5, 323/7, 323/15, 349/24, 361/19, 363/4 Mr. and 320/22 MR. BRADBURY 213/4, 214/8, 221/5, 221/20, 224/15, 224/25, 225/2, 227/3, 228/12, 228/15, 231/5, 231/8, 231/24, 232/15, 232/20, 232/25, 233/5, 234/21, 235/2, 235/5, 235/13, 235/21, 236/7, 236/19, 236/23, 237/1, 237/11, 217/20, 238/6, 238/12, 238/18, 239/8, 239/14, 240/16, 240/19, 240/25, 241/13, 241/23, 239/14, 240/16, 240/19, 240/25, 241/13, 241/23, 241/13, 241/23, 242/21, 242/23, 243/6, 243/19, 243/21, 243/21, 243/24, 244/2, 244/10, 215/6, 245/8, 245/13, 245/16, 245/22, 246/1, 246/14, 246/21, 247/11, 247/21, 247/24, 249/9, 249/13, 249/16, 250/1, 250/20, 250/22, 251/3, 251/6, 252/2, 252/19, 252/22, 254/12, 254/16, 255/13, 255/14, 255/14, 255/19, 255/23, 255/25, 255/14, 255/14, 256/4, 256/7, 256/9, 256/11, 258/9, 258/13, 259/8, 259/10, 259/14, 259/20, 259/23, 259/25, 261/21, 262/1, 262/6, 262/19, 262/22, 263/18, 263/24, 264/4, 264/10, 264/14, 264/17, 265/11, 265/22, 265/25, 266/4, 266/13, 266/24, 267/8, 207/10, 267/16, 267/25, 268/5, 268/11, 268/14, 268/21, 258/24, 269/22, 270/7, 270/23, 271/12, 271/19, 271/23, 272/8, 272/11, 272/18, 273/13, 273/19, 273/23, 274/10, 274/15, 274/23, 275/3, 275/22, 276/7, 276/9, 276/13, 276/18, 277/4, 277/17, 278/2, 278/7, 278/11, 278/13, 278/15, 278/20, 278/24, 279/5, 279/15, 279/19, 280/12, 281/5, 281/17, 281/22, 281/24, 282/2, 282/5, 282/10, 2 2/13, 282/18, 282/23, 283/17, 283/20, 284/2, 284/9, 221/14, 284/16, 284/20, 284/25, 286/13, 286/20, 287/2, 27/10, 288/2, 288/7, 288/10, 288/18, 290/2, 292/19, 375/4, 295/8, 295/10, 295/14, 295/23, 295/25, 296/11, 296/16, 296/20, 297/9, 298/8, 301/10, 301/21, 301/25, 202/4, 304/2, 304/8, 304/12, 304/15, 304/20, 306/1, 205/22, 307/5, 307/12, 307/16, 308/1, 308/9, 310/1, 312/4, 312/7, 313/22, 313/25, 314/2, 319/21 MR. GREEN 213/6, 320/22, 329/6, 329/13, 329/17, 329/21, 334/14, 338/21, 339/5, 339/13, 339/17, 339/21,

340/2, 344/7, 349/13, 349/20, 355/18, 355/22, 356/4, 361/5, 361/16, 361/20, 361/23, 362/17, 365/16, 365/21 Mr. Stacy 218/20, 234/14, 236/12, 236/19, 239/20, 252/2, 252/4, 272/20, 285/16, 287/11, 287/12, 289/24, 290/5, 291/23, 294/10, 310/5, 316/7, 319/1, 322/19 Mr. Stacy's 360/10 Mrs. Commissioner 320/23 Ms. Keating 214/5, 214/6, 320/13 MS. NORRIS 308/23 multiple 243/24, 335/2, 335/7, 336/8, 338/7, 338/8, 345/3 music 320/19 mute 320/20

### N

name 214/23, 215/3, 227/25, 228/17, 320/23, 331/18, 331/19, 337/4, 337/7, 337/13, 337/16, 339/2 names 219/2, 219/8, 219/16, 337/3, 337/9 nation 362/14 nature 223/24, 265/16, 273/9, 354/16 necessary 218/25, 237/8, 286/12, 319/9, 323/20, 324/6, 324/9, 327/13, 327/17, 327/23, 332/20, 353/20 need 214/21, 215/24, 224/7, 237/5, 247/25, 270/7, 277/14, 277/24, 279/19, 281/1, 282/6, 288/18, 288/21 288/25, 297/23, 306/12, 309/7, 314/20, 348/16, 351/11, 352/6, 352/10, 353/14, 363/21, 364/14 needed 327/15, 327/25, 330/23, 342/14 needs 233/3, 258/15, 277/18, 277/21, 307/4, 307/7, 307/22, 312/2, 314/19, 320/2, 353/11, 355/13 negative 332/8 negotiated 231/17, 233/1 NEs 216/5 nest 250/14 network 215/9, 216/3, 216/5, 221/20, 222/6, 232/17, 233/6, 240/11, 317/14, 337/1, 340/8 new 216/25, 225/18, 227/24, 240/13, 280/17, 287/23, 323/11, 337/5, 343/8, 354/15, 355/16, 362/25, 363/1, 363/7, 364/5, 364/17 news 352/20 nice 269/23 nightly 273/7 nine 307/17, 327/19, 336/3, 336/5, 358/16 NM 313/3 non-LNP 357/19 non-satisfier 286/10 nondesign 351/19, 351/21, 351/24, 352/4, 352/14, 352/20, 352/22, 352/24, 353/2, 353/6, 353/7, 353/11, 354/9, 356/19, 357/24, 358/21 nondiscriminatory 239/25, 317/13 nonetheless 349/7 nonintegratable 260/15 nonlawyer 252/11 nonmechanized 313/3 noon 247/3, 247/5, 320/9 normal 254/5 Norris 308/24 notes 236/14 notice 229/7, 273/23, 274/16, 282/9, 289/20, 311/8, 311/14, 311/25, 312/9, 324/14, 333/2, 333/3, 340/19, 341/6, 341/8, 344/16, 345/10, 347/14 notices 269/8, 271/5, 312/17, 324/8, 327/1, 332/12, 340/18, 341/1, 341/4, 342/2, 342/23 notification 264/15, 354/8 notifications 324/6, 324/9, 328/8, 332/1, 332/6, 333/1, 333/13, 333/15, 341/17, 357/8, 357/13, 357/18 November 234/9, 253/10, 299/14, 299/18, 312/9, 332/23, 333/20, 335/24 number 220/5, 222/4, 225/15, 239/15, 240/5, 247/13, 254/12, 258/1, 260/1, 260/9, 280/16, 284/24, 290/23, 290/25, 292/4, 292/6, 292/9, 292/13, 293/2, 293/9, 293/12, 293/13, 293/17, 293/18, 293/21, 295/20, 299/20, 299/23, 300/2, 300/3, 300/7, 300/8, 300/16, 301/11, 302/2, 322/13, 323/22, 323/24, 326/16, 326/18, 327/7, 328/8, 329/1, 329/20, 330/19, 331/4, 336/10, 336/13, 342/20, 345/25, 348/19, 348/20, 348/22, 349/21, 350/6, 353/13, 356/10, 358/2, 363/4 numbers 222/5, 222/7, 222/8, 261/17, 272/17, 293/17, 299/3, 302/13, 302/14, 342/8 numerics 340/12, 353/19 NYNEX 364/4

### 0

objective 274/4, 275/6, 289/18, 293/25, 294/5, 294/21, 321/14, 361/2 objectives 274/14, 342/5, 342/6 obligation 252/9, 272/12 obtain 242/15 obtained 241/18 occasion 220/20, 237/14 October 223/16, 299/15, 356/20

**ODUF 226/13** offer 309/23 offered 324/18 offering 323/1, 323/6, 323/12 offerings 365/14 office 243/14, 260/18, 320/21 offices 221/25 official 245/20 old 291/8 omissions 267/17 on-line 221/10, 262/16 one-third 271/4 opening 351/14 operate 217/5 operated 330/5 operating 255/6, 255/7, 255/8, 255/10, 359/19 operation 215/11, 229/24, 234/7, 260/23, 315/18, 316/3, 316/5, 326/6, 326/11, 326/14, 351/11, 356/7, 366/1, 366/2 operational 212/5, 234/7, 234/17, 306/24, 321/5, 321/10, 321/11, 321/16, 322/13, 324/24, 325/10, 326/2, 329/25, 330/2, 330/3, 330/14, 331/3, 333/14, 346/1, 346/8, 351/2, 356/12, 357/1, 357/10, 362/21, 363/20, 365/12, 365/23 operationally 319/10, 322/2, 357/4, 360/4 Operations 215/7, 217/1, 234/18, 317/2 opinion 262/2, 290/3, 360/25, 365/5 opportunity 214/9, 317/19, 321/20, 329/8, 364/16 opposed 251/2, 273/16, 335/11, 338/3, 350/25, 353/19, 363/8 option 349/23 order 228/16, 228/17, 230/11, 240/5, 241/16, 241/20, 242/3, 242/4, 242/14, 242/15, 242/18, 243/1, 243/8, 243/9, 243/10, 243/11, 244/4, 244/11, 244/12, 244/14, 244/16, 245/13, 246/2, 246/14, 247/2, 247/4, 247/5, 247/25, 248/3, 248/25, 253/17, 262/12, 262/20, 262/24, 262/25, 263/1, 263/5, 263/1, 1, 263/25, 264/5, 269/14, 269/20, 270/5, 272/19, 273/3, 282/25, 283/1, 283/4, 283/6, 283/8, 283/13, 285/25, 286/4, 286/21, 286/22, 287/4, 288/1, 288/19, 288/21, 288/25, 289/1, 289/4, 290/18, 291/15, 293/1, 294/4, 294/9, 298/11, 298/23, 300/13, 300/14, 303/4, 310/11, 310/12, 310/13, 310/14, 310/19, 311/7, 311/9, 312/20, 312/22, 313/4, 313/6, 313/19, 313/23, 313/24, 317/8, 326/25, 327/13, 327/25, 331/12, 331/12, 331/12, 331/13, 331/19, 332/20, 335/3, 335/4, 335/8, 336/11, 337/1, 337/16, 337/16, 337/16, 338/10, 338/13, 338/15, 340/14, 340/23, 340/24, 341/7, 341/9, 341/23, 341/24, 343/18, 343/19, 343/20, 343/21, 343/22, 343/23, 343/24, 343/4, 346/5, 346/6, 346/9, 348/10, 348/12, 346/15, 348/12, 348/13, 348/15, 348/12, 348/13, 348/10, 351/11, 351/24, 353/6, 353/7, 353/8, 353/12, 354/17, 354/23, 355/5, 262/25, 263/1, 263/5, 263/11, 263/25, 264/5, 269/14, 353/6, 353/7, 353/8, 353/12, 354/17, 354/23, 355/5, 355/6, 355/8, 355/10, 355/12, 355/15, 355/24, 363/10, 363/22 ordering 214/18, 214/20, 222/14, 223/6, 223/10, 224/1, 224/9, 230/7, 230/10, 234/8, 234/22, 235/4, 235/5, 235/14, 235/15, 235/17, 235/24, 236/6, 236/8, 236/9, 241/9, 244/18, 260/3, 260/13, 261/10, 261/23, 236/5, 241/5, 244/18, 260/5, 260/5, 261/10, 261/25, 262/15, 281/7, 281/11, 281/21, 285/6, 287/17, 287/18, 312/23, 317/25, 319/4, 322/8, 322/9, 323/18, 344/5, 352/14, 353/13, 353/21, 356/19, 363/18 orders 227/5, 230/15, 234/10, 234/19, 235/10, 243/14, 243/16, 243/22, 262/10, 262/13, 263/19, 266/9, 243/14, 243/16, 243/22, 262/10, 262/13, 263/19, 266/9, 269/10, 271/2, 271/3, 271/6, 272/5, 273/1, 275/12, 275/17, 276/10, 279/3, 280/20, 283/2, 284/1, 285/9, 285/13, 285/16, 285/17, 285/18, 285/22, 286/1, 286/14, 286/17, 287/1, 287/18, 287/10, 287/12, 287/14, 287/16, 288/3, 289/9, 289/16, 292/13, 293/6, 293/19, 293/22, 293/23, 294/2, 294/6, 294/20, 294/24, 295/16, 296/22, 296/25, 297/5, 298/16, 298/21, 299/4, 295/16, 296/22, 296/25, 297/5, 298/16, 298/21, 299/4, 299/5, 300/7, 300/17, 300/20, 300/23, 300/25, 302/20, 303/3, 303/13, 303/15, 304/16, 308/2, 310 303/15, 304/16, 308/2, 310/3, 318/5, 318/6, 321/17, 323/22, 324/11, 325/23, 325/25, 326/16, 326/18, 328/10, 329/2, 330/11, 330/12, 330/14, 330/15, 330/16, 330/18, 330/19, 330/20, 331/1, 331/7, 331/18, 332/5, 332/8, 332/22, 333/17, 333/18, 333/19, 333/22, 334/1, 334/4, 334/5, 334/6, 334/10, 334/13, 334/16, 334/21, 336/25, 337/12, 337/15, 338/7, 338/20, 340/18, 340/21, 341/10, 341/15, 342/5, 343/1, 343/2, 343/3, 343/17, 344/15, 344/23, 345/15, 345/25, 346/6, 346/10, 347/9, 350/13, 350/17, 350/18, 352/8, 354/15, 354/19, 355/25, 357/2, 357/12, 357/19, 358/21, 359/4, 360/6 organization 219/6, 251/14, 252/8 organizations 251/13 oriented 310/3 original 280/7, 280/9, 343/18, 343/23, 344/5, 345/5. 347/12 originally 215/2, 272/1, 272/3, 346/20 Orgs 215/2, 27.27, 27.27, 27.27, 21.27, 21.5/4, 21.5/14, 21.5/14, 21.5/18, 21.5/20, 21.6/9, 21.9/12, 22.3/14, 290/22, 291/1, 308/24, 318/21, 319/10, 322/7, 324/4, 324/19

OSSs 214/13, 216/17, 218/18, 218/24, 219/21 outline 317/9 outstanding 324/2 overlap 249/13, 273/13, 276/12, 276/14, 276/16 overnight 273/10, 273/14 oversight 363/12 overview 316/21, 320/25 ownership 324/16

P P/SIMS 220/20, 227/18 package 219/18, 229/17 packet 282/7 Pages 212/8, 317/9 pain 359/9, 365/4 pair 218/2 parallel 26.3/8 Pardon 21118 parity 2521. 274/17, 275/2 parse 21 parsed 2 . 250/5, 250/16, 251/2 . 247/24, 248/13, 248/23 parsing 2" part 217/8 1/24, 302/8, 303/2, 326/18, 330/14, 330/18 344/11, 348/24, 353/24, 362/3 partia , 328/1, 328/4, 328/16, 329/11 participent 10614 participante 364/7 partners 217/15, 217/21 parts 214 279/20, 363/9 party Manager 1/20 Pause 2 PBX 27 1/24, 305/23, 305/24 PC 2? /15, 266/10, 266/11 PCs 2 pen 2 penali 14 pena 16 pencil pend 5, 286/4, 345/6 perce perce perce 1/18, 257/25, 259/13, 277/12, 278/20, 282/22 15/9, 290/21, 293/5 1/4, 295/18, 299/6 perce perfe perfer 219/16, 246/16, 256/13, 293/5, 294/21, 217/25, 308/5, 309/20, 317/20, 319/4, 300/10, .... 333/1 period 2 231/3, 232/10, 241/17, 243/1, 243/2, 243/17. 2 114/17, 246/13, 247/2, 259/3, 274/1, 313/1 perio 271/14 perso 8, 216/11, 263/15 /6, 325/7, 362/16 20/15, 355/23 perse pers phor 1, 227/19 phon 233/25, 262/18 phys pick 1/1, 301/5, 343/19, 355/23 Pick pictu . 310/3, 310/4 piece piece pig pipe PLA 7, 219/19, 230/14, 230/16, 230/18, 241/1 2/20, 269/19, 269/20, 279/14, 288/9, 322/2 29/20 plac 235/10, 353/11 plac . 337/9 plan 22, 350/2 plan plat play 267/20, 304/17 pius 3, 334/3, 334/6 poin 20, 233/15, 234/16, 237/3, 244/7, 258/ 17, 271/22, 272/4, 278/3, 288/5, 288 /10, 303/22, 304/24, 305/2, 305/11, 306/? 6/4, 320/7, 320/13, 322/19, 323/18, 324/ 1/21, 338/19, 352/15, 352/16, 360/9, 122 361/6 poin 10/20 poin pol 136/23 D00 pop por 1/23, 323/24, 326/16, 326/18, 327/8, 328/ 20, 330/19, 336/10, 349/21, 350/6 por por

position 309/4 possible 232/10, 280/4 postulated 310/1 POTAMI 212/20 potentiai 216/18, 218/7, 225/8, 244/5 practices 362/5 pre-agreed 315/3 pre-editing 340/16 pre-processor 339/25 predictability 245/15 predominantly 223/7 preference 317/20, 319/7 preorder 239/16, 242/2, 246/23, 253/16, 256/13, 317/10, 323/2 preordering 214/17, 220/13, 220/22, 222/15, 222/17, 222/20, 227/16, 230/5, 230/6, 230/8, 230/23, 233/17, 234/5, 234/7, 235/2, 239/15, 240/4, 241/14, 241/18, 254/13, 257/4, 258/3, 281/7, 281/11, 281/21, 317/14. 317/22, 317/23, 322/8, 322/18, 323/8, 365/18, 365/24 prepared 265/13, 322/5 prescribed 330/5 PRESENTATION 213/4, 213/6, 214/11, 240/21, 297/17, 297/18, 297/21, 320/8, 346/15, 361/18, 361/22, 366/6 presented 257/2, 257/6, 257/24, 297/5, 311/16 presenter 214/6 presents 319/23 presupposes 355/16 Pretty 228/13, 258/18, 313/7, 317/22, 318/19, 346/3 pricing 352/23 primary 336/24, 351/16 printer 274/1 probability 286/2 problem 216/18, 216/20, 265/9, 266/21, 266/24, 277/7, 279/2, 279/4, 279/18, 279/20, 279/21, 279/22, 304/11, 306/4, 309/25, 314/10, 320/17, 331/15, 333/9, 335/12, 337/15, 343/15, 344/23, 345/7, 346/25, 347/2, 347/15, 347/17, 348/5, 349/1, 349/3, 349/7, 351/15, 351/16, 353/24, 354/3, 355/16, 355/17, 355/21, 357/25, 358/17, 359/5 problematic 266/22 problems 218/8, 265/11, 265/14, 276/16, 276/22, 276/25, 279/10, 302/5, 316/25, 326/8, 326/10, 331/4, 276/25, 216/25, 2 335/17, 335/23, 336/3, 337/18, 340/22, 343/5, 345/20, 346/17, 346/21, 347/24, 349/5, 350/7, 350/10, 350/13, 350/22, 355/13, 359/16, 360/8, 361/9, 364/8 proceed 298/7 PROCEEDINGS 212/10 process 214/25, 215/5, 216/8, 222/10, 227/7, 231/9, 242/17, 243/1, 244/3, 246/22, 249/3, 261/23, 267/7, 271/7, 271/24, 272/2, 272/3, 272/23, 273/16, 274/11, 274/18, 275/5, 275/14, 277/7, 285/6, 285/7, 285/18, 285/20, 285/23, 286/21, 286/24, 288/8, 289/1, 290/8, 291/4, 291/12, 291/17, 291/19, 291/20, 294/8, 294/23, 296/19, 297/1, 300/5, 301/15, 309/10, 309/22, 311/23, 314/18, 314/23, 314/24, 315/8, 315/9, 321/8, 323/10, 324/1, 325/18, 326/7, 331/1, 331/24, 332/24, 338/1, 340/1, 352/11, 354/4, 356/25, 358/3, 358/6, 359/11, 359/21, 361/4, 361/10, 363/1, 363/10, 364/12, 364/24, 364/25 processed 243/17, 245/5, 245/10, 285/22, 342/12 processes 215/3, 215/10, 215/12, 215/14, 215/22, 216/2, 216/10, 218/12, 218/13, 218/18, 218/25, 219/11, 219/12, 219/13, 219/20, 271/4, 296/24, 315/12, 324/12, 346/14 processing 293/1, 294/9, 303/14, 304/21, 318/2, 318/4, 333/16, 344/10, 345/17, 349/10, 350/19, 352/7, 357/3 produced 234/6 produces 235/7, 295/20 product 233/23, 306/24 production 222/25, 224/1, 224/14, 233/18, 233/19, 235/17, 325/11, 327/14, 330/9, 330/15, 330/16, 350/3, 350/12 products 220/2 program 299/11 programing 234/12, 289/8 programmed 337/23 programmers 239/2 programming 301/12, 304/22, 360/13, 360/14 prominent 280/11 promise 351/25, 359/1 promised 327/12, 360/20 promises 327/3, 356/11 promote 217/12 proposed 289/20, 308/2 proposition 238/2, 360/21 proprietary 262/7, 262/17 protocol 249/23, 249/25, 322/21 protocols 217/25, 366/1 prove 290/7, 327/22, 330/4, 346/1, 352/6, 359/7, 360/3 proved 356/14, 357/2, 357/11 proven 357/4

provide 219/24, 232/4, 240/3, 243/5, 250/2, 250/4. 251/10, 251/12, 252/9, 257/8, 260/2, 260/6, 260/7, 263/14, 265/20, 266/25, 267/2, 274/16, 289/1, 303/15, 312/17, 317/12, 327/16, 327/23, 328/9, 328/11, 334/12, 341/22, 353/4, 357/18 provider 329/18 providers 238/3, 314/21 provides 257/7, 262/8, 289/9, 311/21 proving 357/15 provisioning 214/18, 223/6, 223/11, 224/9, 310/25, 311/2, 312/24, 318/9, 322/9, 324/3, 324/4, 342/14 prudent 365/11 PUBLIC 212/1, 288/12 pull 326/20, 326/21 purpose 288/5 push 352/10 put 218/5, 221/7, 222/22, 222/25, 225/22, 225/24, 227/19, 227/21, 248/17, 248/18, 248/20, 248/24, 249/22, 250/6, 251/18, 263/2, 265/6, 266/7, 266/1, 270/4, 285/15, 288/21, 288/23, 292/6, 292/12, 293/12, 293/16, 294/19, 294/20, 298/3, 307/24, 315/15, 320/19, 320/20, 337/1, 337/16, 340/12 puts 218/6, 243/10, 260/20 putting 248/16, 270/13, 270/19 0 quality 219/17, 264/21, 266/1 quarter 357/1 question 226/24, 241/6, 241/25, 247/23, 249/20, 251/24, 256/11, 261/5, 267/23, 270/3, 277/13, 301/18, 302/5, 305/19, 306/2, 306/17, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 307/15, 308/25, 309/5, 305/15, 308/25, 309/5, 305/15, 308/25, 309/5, 305/15, 308/25, 309/5, 305/15, 308/25, 309/5, 305/15, 308/25, 309/5, 305/15, 308/25, 309/5, 308/25, 309/5, 308/25, 305/15, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 309/5, 308/25, 308/25, 308/25, 309/5, 308/25, 309/5, 308/25, 308/25, 309/5, 308/25, 308/25, 309/5, 308/25, 308/25, 308/25, 308/25, 308/25, 309/5, 308/2 337/20, 339/22, 364/21 Questionable 273/8, 301/16 questions 233/2, 258/3, 297/18, 298/3, 308/17, 319/17, 366/6, 366/8 queue 245/11, 245/18 quicker 277/15, 361/19 quiet 320/21 R raised 282/17 ran 222/9, 336/22, 346/20, 354/12 range 300/25 rates 261/16 ratio 253/18 RBOC 309/15, 363/15, 364/12 reach 230/19, 237/21, 316/15 reactivate 230/18 read 248/14, 248/15, 252/12, 287/19 readiness 356/12 reading 313/9 realization 359/6 realm 326/4 reaitime 244/13 reason 239/20, 241/23, 252/17, 273/17, 288/24, 312/23, 340/4, 345/1 reasonable 241/17, 246/13, 247/9, 274/1, 319/13 reasons 231/9, 258/20, 271/1, 289/14, 336/21, 336/24 recall 231/21, 232/21, 253/3, 258/17, 339/23 receipt 311/6, 311/9 receive 221/18, 226/17, 257/9, 263/24, 265/6, 277/6, 282/9, 320/4, 332/1, 333/1, 333/6, 336/20, 337/20, 338/9, 338/24, 340/19, 341/4, 341/5, 342/1, 342/23 received 264/6, 292/15, 292/21, 293/6, 293/14, 293/23, 311/7, 328/3, 331/10, 332/7, 334/21, 334/25, 335/2, 335/11, 337/19, 338/7, 338/8, 338/9, 338/16, 341/1, 341/7, 344/15, 344/16, 344/17, 352/18 receives 310/17, 331/13 receiving 265/2, 269/7, 271/2, 349/5 recess 297/12, 366/8, 366/10 reconcile 231/4 reconvene 297/11, 366/9 reconvened 214/2 record 233/21, 247/12, 248/3, 248/4, 248/8, 248/11, 249/4, 249/14, 250/5, 250/12 records 226/12 rectify 264/3 reduce 281/14 reduces 289/6, 289/8 reducing 281/18 ref 220/17 reference 348/15 referral 291/11 Reflected 258/25, 317/7 refrain 366/3 region 285/11, 323/2, 323/12, 359/20, 361/1, 361/7, 362/13, 363/2, 364/4, 364/5 region-wide 219/17 regional 220/16 regular 237/13, 253/2, 264/24, 293/3, 295/19

regulator 30 15 /5, 309/1, 309/24 ntors regu reinent 7.10 reject 262/24, 264/6, 264/14, 271/7, 271/24, 272/3, 282/9, 283/3, 308/10, 331/11, 331/15, 273/23, 274/15. 331/17, 335/5. 136/21, 337/21, 338/9, 338/10, 338/12, 242/21, 345/5, 347/6 339/7. 340/14 13, 291/2, 331/18, 331/20, 331/23, rejected 275 336/24, 336005, 337/3, 338/15, 346/22, 347/4, 347/9, 354/25, 315 rejecting 275/16, 282/25, 337/13, 337/14 rejection 2 1. 285/7 rejections 16 1, 270/4, 276/20, 303/9, 304/5, 305/6, rejects 2 311/20, 311 1, 324/8, 328/9, 328/23, 328/24, 329/4, 331/10, 332/10, 334/21, 334/23, 329/12. 31 26/20, 337/19, 338/7, 338/8, 338/17, 21/25, 357/7, 357/18, 358/20 334/ 338/ 9/19 rek rek . 286/12 rek rel . 358/20 rela 7/23, 302/18, 303/6, 337/17 rela 1/5. 347/20 rela rela rele 1. 350/12 rel rel 0 rel rely 172 rem 0, 240/21, 334/9 rem rem 3. 273/3. 277/23. 310/10. 331/21. ren 12, 336/16, 336/18, 337/11, 340/14, 336 341 ren 219/7, 225/3, 226/3, 227/2, 314/3, rei 314 Ren Re 1, 363/19, 363/24 rer re 31/16, 234/10, 235/9, 253/5, 273/8, re 11, 315/3, 315/10 29 RI 2/20, 300/17, 302/3 re Re 21 . 293/25, 298/13, 299/17, 300/1, re 30 , 310/5, 310/20 re 52/25, 253/1, 257/17, 266/8, 275/25, 29 16 rei 299/15, 310/8, 310/16 re re 268/19, 342/13 re 18 2, 259/17, 282/21, 348/21 re re 22, 326/20, 332/19, 335/13, 337/25, re 34 232/6, 247/9, 310/13, 316/16 re 290/20, 290/24, 290/25, 291/3, re 29 1/8, 296/10, 300/9, 322/21 re · + E /8 rec . 288/6, 295/22 re 11 6/13, 220/10, 225/21, 233/7, 239/17, res 26 /15, 316/1 3, 241/7, 241/12, 242/5, 242/9, re 24 2/25, 247/8 725, 254/1 re res 247/3, 247/5 re re 1, 257/14, 261/17, 269/13, 275/6, re 29 /14 0, 313/2, 323/4 re re re 145/22 217/1, 347/3, 347/23, 348/3, 349/25, re 35 /5, 358/15, 358/25, 361/12 , 361/12 re re: 1. 345/22 re 158/10 re. re re: , 252/25, 254/14, 257/5, 257/9, re: 30 2/15 re 11/10, 249/23, 250/2 18, 264/25, 270/19, 303/23, 304/3, re 30 . 307/2

rest 217/17, 293/4, 313/8, 320/16 restating 317/11 result 269/21, 277/2, 327/3 results 321/5, 342/4 retall 252/5, 252/7, 252/13 retrain 279/11, 280/2 retraining 276/21 retread 320/25 retrieval 233/21 retrieve 247/12 return 277/15, 342/21, 342/22 returned 273/5, 273/6, 273/7, 283/21, 284/1, 294/17, 295/17 returning 313/4 retype 249/6 retyped 286/1 review 288/16, 325/15 reviewed 320/7, 326/19 reviewing 326/10 RNS 244/11, 247/16, 249/10, 250/4, 250/6, 250/10, 250/23, 257/8, 261/14, 263/8, 263/9, 263/10, 264/22, 268/6, 272/19, 274/4, 300/19, 310/9 road 232/9, 264/1, 364/10 robust 229/22 role 214/14 rolled 325/11 Room 212/17, 293/11 RPR 212/20 rule 267/11, 280/2, 280/18, 280/20, 281/9 rulemaking 289/20 rules 252/20, 265/2, 265/12, 265/20, 277/19, 278/5, 278/10, 279/13, 279/23, 280/7, 280/13, 280/16, 309/9, 309/10, 309/14, 325/17, 326/22, 331/12, 331/22, 334/12, 340/3, 340/4, 340/8, 340/15, 352/18, 352/20, 353/5, 353/21, 356/21 run 311/13 running 226/1, 233/18 runs 238/18 rushing 351/1 RUTHE 212/20 S safe 319/13 said/she 309/17, 319/8 sale 366/2 satisfaction 352/9 satisfactory 290/16 Saturday 342/17 Saturn 312/5 save 223/17 saved 310/9 saw 216/18, 218/5, 221/21, 226/14, 230/10, 240/6, 243/15, 247/2, 247/16, 250/4, 261/1, 272/20, 273/6, 284/10, 312/12, 335/1 scenario 337/5, 344/24, 346/5, 352/5, 354/13 scenarios 352/2 scenes 355/11 schedule 240/24, 297/22, 298/4, 320/12 scheduled 257/20, 257/21, 258/24 scope 214/22, 237/18, 238/7 screens 227/11 screw 277/10 screwed 244/14 screwy 253/19 script 231/17, 231/19, 233/1, 315/3 seamlessly 217/4 seats 242/6 second 253/12, 261/20, 280/12, 316/24, 317/4, 338/10 seconds 253/9, 256/19 seconds' 254/5, 254/9 section 227/5, 230/23, 233/13, 282/8, 310/23 secure 224/5 segments 250/16 segue 362/1 selling 242/6 send 230/11, 247/25, 248/21, 262/24, 283/1, 283/4, 283/5, 283/8, 284/7, 285/9, 285/17, 285/18, 286/15, 303/5, 326/1, 327/25, 335/5, 338/2, 338/13, 343/17 343/20, 345/10, 345/15, 346/19, 347/5, 348/9, 355/23 sending 224/10, 224/11, 330/14, 338/3, 338/19, 357/12 sends 271/5, 273/4, 310/12, 310/16, 331/14 sense 365/23 sent 222/6, 273/5, 283/22, 312/10, 332/21, 332/22, 333/23, 334/10, 335/4, 342/11, 346/20, 346/23, 347/3, 347/7, 347/9, 347/10, 355/6 sentence 216/1 separate 229/10, 252/7, 252/16, 260/24 September 220/17, 222/13, 223/15, 299/15, 301/15, 327/10, 338/22 series 320/1, 359/15 serious 364/15 serve 249/24, 319/13

server 238/20 SERVICE 212/1, 219/17, 220/2, 222/22, 226/23, 228/5, 233/21, 242/13, 247/12, 248/2, 248/4, 248/11, 228/5, 253/21, 242/15, 247/12, 248/2, 248/4, 248/11, 249/4, 249/14, 250/5, 253/23, 253/24, 254/6, 256/15, 258/20, 258/23, 269/3, 277/23, 287/22, 290/20, 290/24, 290/25, 291/2, 292/20, 294/4, 294/6, 295/16, 300/7, 300/9, 300/13, 310/7, 310/10, 310/13, 310/14, 310/15, 310/19, 311/10, 314/10, 321/24, 322/1, 323/13, 324/7, 327/21, 327/23, 327/24, 328/13, 329/1, 329/19, 331/21, 332/19, 333/8, 335/13, 336/9, 336/12, 336/16, 336/17, 337/11, 337/25, 340/10, 340/14, 341/13, 341/14, 342/2, 345/10, 347/17, 350/11, 354/5, 354/12, 354/20, 354/25, 355/7, 358/19 services 215/9, 215/15, 221/13, 221/24, 261/8, 289/10, 345/9, 345/12, 353/21 session 320/16 set 223/5, 251/18, 265/17, 278/10, 297/15, 314/9, 314/19, 332/14 seven 234/14, 236/16, 241/5, 254/7, 358/21 share 322/5, 330/1, 365/13 shared 329/6. 352/3 Sharon 218/11, 220/4, 229/25, 247/10, 247/18, 261/6, 261/11, 270/25, 271/8, 281/5, 285/4, 295/1, 297/2, 298/9, 298/19, 299/7, 308/24, 311/3, 311/24, 315/6, 316/10, 316/18 shelf 225/25 shortened 320/8 shorter 347/16 show 226/15, 229/3, 242/8, 246/16, 248/25, 259/18, 259/21, 268/8, 268/12, 311/15 shows 259/6, 274/13 side 219/8, 226/7, 227/11, 227/13, 227/14, 228/25, 229/9, 229/14, 230/12, 230/14, 231/10, 251/6, 255/21, 256/1, 256/6, 257/11, 260/18, 274/4, 275/6, 277/1, 277/7, 284/13, 293/11, 310/7, 310/15, 325/24 sides 305/21, 347/20 sign 219/4, 225/22 significance 271/10, 325/23 silos 322/7 similarities 237/22 simple 333/24, 354/17, 356/13 simulation 325/23, 357/16 sit 306/9, 350/17 site 345/13 sitting 306/5 situation 251/25, 260/10, 289/5, 298/25, 320/15, 335/1, 336/15, 352/5 situations 341/12, 355/3 six 254/7, 256/19, 314/16, 315/20, 324/25, 328/18 six-second 256/16 skewed 305/8 skip 291/5, 305/16, 308/20 slide 226/25, 246/15, 261/20, 262/3, 268/8, 271/8, 297/3, 298/10, 301/10, 311/3, 311/24, 314/22, 315/6, 316/10, 317/24, 318/8, 322/4, 322/5, 336/19, 336/23, 361/25, 362/19 slides 227/10, 233/14, 264/15, 268/11, 291/5, 291/10, 305/17, 314/3, 323/25 slower 350/24 slowly 223/2 small 238/16, 242/12, 277/12 smaller 238/2, 238/4 SOC 244/12 society 254/4 SOCS 244/17, 245/21, 245/24, 246/3, 263/12, 272/20, 273/4, 274/6, 283/12, 284/6, 285/10, 285/24, 286/4, 287/5, 288/23, 310/12, 310/18 software 225/25, 230/17, 236/13, 238/25, 239/1, 239/3, 261/3, 346/15 SOLAR 263/12 solution 216/18, 216/21, 217/18, 218/5, 218/8, 246/5 solve 306/4 solving 269/25 something-minute 245/10 SONGS 310/9 sort 222/6, 231/7, 285/19, 309/16, 321/13, 325/6, 339/24 sounds 246/7 source 293/9 south 289/17, 317/5, 362/15, 364/22, 364/23 span 240/22 SPEAKER 270/21, 280/24, 281/3, 312/2, 312/5 specifications 229/17, 265/3, 265/13, 265/21, 325/18, 356/23 specified 248/6, 343/8, 354/15 speed 325/6 spend 214/12 spent 317/15, 317/25, 326/9, 333/11 split 270/8, 315/8 spot 241/10 spread 284/21 Sprint 218/21 spun 252/15

SQM 219/17, 253/1 SSL3 372/72 stable 221/22 Stacy 322/22 stand-alone 229/15, 323/23, 330/19, 334/3, 334/15, 348/22 standard 231/9, 314/22, 324/22 standards 217/11, 217/12, 217/13, 217/14, 307/21, 307/25, 317/17 stands 313/2 start 235/1, 306/14, 314/5, 353/25, 354/1, 354/2 started 2" . 222/11, 232/1, 287/13, 297/15, 317/11, 346/18 starting 277/15 state 220/17, 253/2, 265/10, 307/17, 319/6, 355/20 7, 280/9, 348/3 statement sta\* /11 sta 253/1, 298/24, 309/13, 323/1, 323/7, 36 St 214/10, 215/14, 324/11 17/7, 350/25, 361/24 str ste 0/7 119 sti 0/7 ste . 284/12 ste str str 3 str sti st 191/8, 309/17, 326/22 st. st: sti 12 350/13 SU SU 114 11/20, 243/8, 243/9, 247/1, 247/4, 7/5, 272/19, 276/9, 287/3, 303/5, SU 25 30 117, 325/22, 325/25, 326/17, 33 1 4, 345/2, 353/6 SU 4/10. 331/11 . 263/19, 263/20, 269/10, 271/6, su 27 14, 287/3, 289/4, 290/21, 292/10, 13, 313/5, 316/19, 318/5, 318/6, 29 17, 333/20, 334/21, 342/25, 343/18, 33 110, 347/12, 354/19 34 SU 116 SU 116 219/20 SU SI' 3, 289/10, 312/6, 323/14, 364/18 SI 1, 322/3 SI 360/25 81 2 SL 11 SI SI \$1 1/3 1 5/2, 215/7, 215/9, 215/11, 215/16, SU 1, 218/18, 228/2, 234/17, 251/11, 21 3 , 328/7, 351/19, 351/23, 353/8, 35 (21, 336/14, 357/23 81 365/17 SI 1, 238/25, 239/3, 352/4 SI SI S 2/10, 350/21 SI SI S١ 17. 236/20 SI s: 2 4, 226/19, 226/22, 227/23, 227/24, 229/9, 230/2, 231/2, 231/10, 2 11, 244/12, 248/17, 248/18, , 257/8, 257/20, 257/21, 257/23, 3, 263/3, 263/8, 263/9, 266/7, 2 2. 2: 1, 280/10, 283/16, 288/3, 289/14, 20 20, 307/10, 310/11, 310/16, 31 321/18, 324/10, 324/18, 326/6, 3 , 334/15, 334/22, 335/4, 335/14, 3 12, 339/6, 339/9, 340/13, 342/10, 3. 14, 346/2, 349/11, 354/24, 364/1, 31 \$ 2 215/7, 215/8, 215/11, 217/1, 223/3, 5, 230/9, 255/6, 255/7, 255/8, 2 4, 258/2, 258/16, 258/18, 258/21, 2 2, 261/14, 261/24, 265/7, 273/16, 31 2, 318/4, 321/19, 324/10, 324/14, 3 332/14, 332/19, 335/13, 340/17, 3. 18, 345/19, 349/14, 359/24, 360/1, 3/

T table 232/6, 312/10, 316/16 TAFI 226/4, 226/9, 230/21, 231/21, 231/24, 232/2, 232/4, 315/2, 315/7, 315/9, 315/10, 315/13, 315/15, 316/15, 318/15, 319/3, 324/18 TAG 219/3, 221/1, 222/21, 230/3, 230/4, 230/6, 230/9, 230/13, 233/17, 234/4, 234/10, 234/12, 234/18, 234/20, 234/21, 235/8, 235/18, 236/2, 236/5, 236/9, 236/18, 236/20, 237/6, 237/8, 237/18, 237/21, 238/4, 238/15, 238/18, 238/25, 239/7, 239/10, 239/17, 239/19, 239/23, 257/3, 257/5, 260/22, 277/18, 281/17, 298/15, 365/14, 365/16, 366/3, 366/5 talk 214/9, 214/14, 214/16, 218/21, 223/4, 223/10, 226/8, 226/14, 227/6, 227/10, 229/5, 233/11, 240/6, 243/6, 252/22, 262/3, 290/13, 310/25, 314/4, 314/9, 321/4, 321/7, 322/9, 322/10, 323/25, 324/4, 331/25, 521/7, 521/7, 522/7, 522/13, 525/13, 55/13, 55/13, 55/13, 333/18, 341/9, 343/5, 348/7, 352/13, 354/4 talked 234/14, 237/15, 256/13, 260/13, 272/20, 285/16, 287/11, 294/10, 311/4, 312/20, 314/24, 317/18, 318/3, 318/9, 318/14, 325/3, 338/6, 345/15, 351/13, 352/7, 354/5, 354/9, 356/5 talking 214/13, 216/19, 218/20, 221/23, 229/9, 230/2, 230/3, 231/1, 232/1, 249/12, 254/2, 287/13, 290/19, 291/13, 306/14, 314/14, 314/17, 317/15, 324/5, 339/1 talks 218/3, 218/4, 218/6, 228/16, 308/21, 319/2 Tallahassee 212/18 tallied 341/16 target 241/2, 328/16 tasks 215/23, 215/25 TCPIP 322/21 team 358/10 teams 325/16 technical 240/10, 251/6, 326/4 technicians 240/15 technologically 232/9 technology 214/24, 215/22, 215/24, 216/2, 216/9, 216/10, 237/7, 237/22, 238/19 Tekordia 216/19, 218/4, 261/1, 261/3, 351/9 telephone 222/5, 227/3, 230/15, 230/17, 230/25, 231/16, 315/11, 348/19, 348/20, 348/22 telephonic 311/20, 312/1, 314/23, 318/12, 318/16, 320/4 telephoning 227/4 ten 327/20, 353/18 term 216/22, 221/21, 251/19 terminal 262/25 terminology 215/4 terms 218/23, 226/11, 292/25, 297/24, 317/22 Terrible 215/25 territory 298/2 TERRY 212/12 test 218/13, 231/22, 233/7, 233/8, 319/13, 326/15, 327/9, 329/8, 330/12, 330/18, 350/5, 350/15, 351/3, 351/6, 351/9, 363/16 tested 315/22, 328/21, 329/16, 356/7, 360/1 testimony 300/22, 360/10 testing 223/25, 233/16, 319/5, 319/6, 319/9, 319/12, 326/19, 327/5, 327/7, 327/8, 349/21, 355/13, 357/16, 359/25, 360/2, 360/8, 362/21, 363/5, 363/7, 363/13, 365/8 tests 232/14, 232/17, 363/10 text 248/14 Thank 214/9, 256/11, 270/25, 298/8, 320/6, 366/7 Thanks 238/14, 256/10 theirs 261/24 Thereupon 366/10 they've 244/13, 263/13, 275/4, 279/24, 286/21, 288/17, 288/22, 290/11, 295/21, 329/10, 355/20 third 216/7, 281/5, 309/14, 316/19, 317/5 third-party 229/16, 266/6, 267/1, 319/5, 319/6, 319/13, 362/20, 363/5, 363/7, 363/16, 364/11, 365/8 three 215/7, 228/20, 228/21, 229/1, 241/15, 243/9, 243/12, 243/15, 253/9, 254/5, 254/9, 275/15, 278/17, 298/13, 301/4, 316/17, 317/9, 325/19, 326/10, 326/12, 337/18, 342/24, 343/2 three-second 253/20 throw 234/11, 345/21 throws 345/14 ticket 225/9, 231/6 tickets 230/16, 231/1 tied 228/23 tier 215/23, 216/7, 216/8, 218/17, 218/24, 219/1, 219/14 till 297/22 TIME 212/16, 214/12, 222/17, 225/7, 225/13, 231/3, 231/16, 232/10, 234/17, 241/17, 242/2, 242/3, 243/1, 243/2, 243/12, 243/17, 244/15, 244/17, 246/9, 246/13, 247/2, 257/5, 258/17, 259/4, 264/12, 264/13, 271/18, 271/25, 272/4, 272/8, 274/2, 275/2, 277/15, 286/5, 299/3, 306/25, 313/17, 313/18, 313/21, 315/20, 317/4, 317/5, 317/15, 317/19, 318/1, 318/19, 326/2, 327/6, 327/19, 328/2, 328/11, 333/11, 335/16, 336/1, 341/24,

341/25, 342/18, 344/2, 344/17, 346/8, 346/19, 346/24, 347/18, 348/25, 352/21, 357/8, 357/17, 358/23, 363/23, 364/9 timeliness 333/12 timely 272/13, 272/14, 289/9, 341/17 times 217/19, 247/9, 252/23, 252/25, 253/16, 253/18, 253/22, 254/8, 254/10, 254/12, 257/9, 264/15, 303/17, 303/18, 327/19, 344/10, 344/13, 350/20 tool 268/25 tools 268/18, 306/11, 309/11, 309/24 top 215/23, 218/17, 227/15, 269/24, 278/23, 279/10, 291/25, 301/1, 358/21 touched 360/11 track 231/2, 231/12, 335/15, 337/8, 345/16, 350/18 trading 217/15, 217/21 traditionally 256/16 traffic 255/12 training 216/11, 251/16, 277/6, 336/6, 336/9, 336/12, 336/16, 341/13 transaction 217/22, 220/25, 221/9, 231/18, 253/9, 253/10, 254/8, 254/9, 254/14, 256/14, 256/18, 256/20, 256/22, 256/25, 313/11, 333/22 transactions 233/20, 253/6, 256/23, 256/24, 338/3 transitioning 321/23 translating 281/13 transmit 217/23, 326/25, 332/1, 332/5, 351/23, 359/4 transmitted 343/2 transmitting 342/15 travel 254/1 travels 255/12 treat 330/16 treating 251/22 treatment 285/21, 298/16, 298/17 treats 251/23 trenched 321/1 trend 275/9, 275/10, 301/4 trial 220/9, 321/5, 327/2, 329/25, 330/2, 330/3, 330/14, 330/22, 331/3, 333/13, 333/14, 344/8, 346/1, 355/25 trials 337/8, 357/1, 357/10 triggers 332/15 trouble 230/16, 231/1, 231/6, 231/10, 231/12, 231/20, 273/25, 314/11, 315/3, 315/10 troubles 231/11 true 246/2, 248/5, 267/4, 291/3, 308/6, 308/8, 357/25 trunks 223/23 truth 306/10 turn 215/22, 226/2, 226/9, 248/16, 258/15, 281/1, 296/25, 297/5, 314/2, 344/20, 350/3 turned 222/23, 223/12, 227/3, 227/12, 296/22, 338/22 turns 310/13 tweaking 323/20 two 215/10, 217/15, 217/21, 227/10, 229/8, 230/13, 233/19, 234/10, 235/9, 236/8, 236/15, 237/5, 237/13, 240/22, 244/22, 254/5, 255/6, 256/20, 260/24, 264/15, 277/17, 282/18, 283/2, 286/13, 286/14, 289/16, 289/18, 293/16, 299/24, 300/11, 300/24, 303/7, 304/25, 305/16, 308/20, 309/23, 311/4, 315/12, 315/14, 315/15, 318/17, 327/15, 337/21, 338/16, 339/5, 343/3, 346/20, 346/23, 349/4, 351/22, 364/14, 366/1 type 231/2, 244/18, 249/10, 249/11, 251/25, 269/17, 269/20, 270/4, 270/6, 281/18, 305/22, 313/4, 340/11, 362/20 types 215/10, 281/10, 281/15, 286/14, 287/8, 292/3, 301/20, 335/23, 350/7, 353/21 typing 310/16 U U.S 215/1 unaddressed 318/23 unbundled 215/15, 216/13, 240/11, 261/9, 317/13 uncover 325/9, 359/13 uncovered 326/13, 326/24 uncovering 335/18 undertaken 309/13 **UNDOCKETED 212/4** UNE 219/6, 240/9, 240/16, 241/4, 269/14, 287/25, 288/2, 292/1, 298/18, 312/13, 312/15, 334/10, 334/13, 334/16 UNE-P 323/1, 323/6, 323/12, 323/17 UNEs 239/20, 239/21, 282/12, 313/9, 354/16, 356/13 unhappy 306/19 UNIDENTIFIED 270/21, 280/24, 281/3, 312/2, 312/5 unit 233/22, 315/18 units 224/3, 226/5, 228/3, 228/7 universe 291/25 unlike 240/1 unreasonable 307/9 unreliable 312/19 unresolved 347/24 untested 358/1

update 226/10, 332/19, 335/14

Del ma	
. 231/14	Ŷ
2/6 250/18	year 222/18, 222/22, 223/16, 224/3, 225/13, 228/7, 234/6, 234/9, 253/10, 258/20, 287/13, 301/6, 358/19,
17/21, 319/7 1/24, 270/19, 277/18, 277/21, 331/18,	358/20, 359/14
7/4, 337/7, 337/9, 339/2	years 214/15, 216/16, 217/20, 225/5, 228/2, 228/21, 229/1, 232/8, 239/16, 241/16, 259/25, 316/17, 364/15
5, 266/4, 266/5	York 323/11, 362/25, 363/2, 363/8, 364/5, 364/17 Young 360/1
290/21	
v	
3, 288/20, 288/24, 290/24, 290/25, 1/9, 334/23, 336/25	
<sup>2</sup> 2, 233/20 7, 355/1	
323/18, 324/17, 352/15, 365/21,	
266/7, 266/20, 267/1 9	
3/9, 223/15, 223/17, 225/11, 2 <b>50/8</b> ,	
-/7, 290/15, 302/10, 365/14	
3, 319/24	
7, 225/17, 293/7, 293/8, 295/10, 24, 355/13, 360/7, 365/20	
60/5, 363/19, 363/23, 363/24,	
W	
3, 296/7	
\$5/9	
3, 329/24 9, 237/20, 237/23	
, 353/23, 354/23 342/11, 342/19	
<sup>53/9</sup> , 253/21, 256/14	
5	
219/8, 252/5, 252/14, 315/1	
15, 298/25, 300/4	
17/2, 247/7	
/3	
75/15, 326/20, 330/5, 331/6, 331/17,	
12, 220/5, 220/9, 226/9, 240/23, 6, 262/20, 263/2, 265/3, 269/3,	
7, 308/24, 325/16, 350/1 3/24, 244/16, 320/15, 327/2,	
216/17, 234/25, 262/19, 262/25,	
7, 335/21, 359/10, 362/11, 362/12, 9, 243/5, 243/6, 252/1, 308/5,	
3 2/10, 214/2	
8/19, 256/22, 312/18, 313/8, 317/14	
6	
7/14	
1/24, 249/6, 252/3, 257/18, 263/5,	
22, 283/11, 298/22, 308/17, 340/12	
X	1
	1