

of BA's FOCs are not valid. The metrics -- at least as interpreted by BA -- measure the time from BA's receipt of an LSR until BA completes its work in provisioning, but they do not measure whether the line BA provisioned actually worked. Well more than a quarter of the time, the line doesn't work. Hence, there is a critical need for a new focus on metrics that ask the first questions: are the particular jobs that are being done, being done right? A secondary need is to modify the interval metrics to reflect the intervals to successful performance, not, as is now the case, the intervals to performance no matter how inadequate or harmful.

Second, as surprising as the review of the metric issues has turned out to be is the discovery that BA has no internal systems in place to capture the adequacy of its own performance. BA could not produce from its files, even on a sample basis, its own estimates of how many of its FOCs were incomplete or inaccurate or, the most basic fact of all, how many of the lines it provisioned had some service-affecting problem at cutover. AT&T has had to generate all of the data available on these topics. When lines do go out, BA had no data on mean time to restore.

Third, over the past two months, the carrier-to-carrier metric proceeding before Judge Brillling has accelerated in tempo to a near frenzied pace in order to accommodate a seemingly arbitrary date of February 10th for Commission consideration of

whether the interim measurements should be changed. Plainly, however, this data reconciliation exercise bears directly and critically on how the interim carrier-to-carrier measures should be modified and supplemented based upon actual marketplace experience. Frankly, since there are only two full business days before the February 10th session, we are very concerned as to how this report could possibly be included in the Commission's considered evaluation of appropriate future carrier-to-carrier metrics if the February 10th date for Commission consideration of those measurements remains unchanged. Yet, by its very nature, this report reflects the actual marketplace performance that the Commission cannot ignore and must carefully evaluate as part of its regulatory oversight responsibilities. Consequently, we urge Staff to use its best efforts to ensure that a target calendar date set in the past for Commission consideration of metrics does not effectively bar the full consideration and analysis that this data reconciliation exercise requires. In short, this report alone requires that the subject of carrier-to-carrier metrics not be addressed at the Commission's next scheduled session in just over two business days from today.

With these preliminary comments, we will now address our specific findings, conclusions and recommended process changes.

1. Order Confirmation ("FOC") Timeliness

The calculation of the Firm Order Confirmation ("FOC") interval turned out to be one of the most contentious and complex parts of this exercise. The calculation of the FOC interval turned out to be far more complex than anticipated by either party and provided for in the carrier-to-carrier metrics. As discussed above, this is one case where the assumption of settled processes was incorrect. The metric seems to assume a single Local Service Request ("LSR") and a single responsive Local Service Request Confirmation ("LSRC") or FOC when the norm, in fact, is multiples of either or both.

Notwithstanding the numerous disagreements about whose prior activity was the cause of whose subsequent problem or delay, certain points in this area have now become clearly defined and can permit analytical conclusions and, perhaps, actions.

As suggested above, AT&T and BA disagree fundamentally on the proper metric definition. BA has measured the FOC interval as the time from the receipt of a valid LSR until the issuance of an LSRC, no matter how flawed that LSRC is. BA does not read the carrier-to-carrier metrics as requiring it to verify the accuracy and completeness of its FOCs, or to calculate the FOC interval termination point as when a complete and accurate LSRC has been sent.

AT&T disagrees strongly. AT&T's reading is that both the language and the purpose of the interval metric is to measure

from a valid LSR to a valid LSRC. Indeed, this is an area where the establishment of an ill defined metric, the measurement of which has consequences, may be motivating unintended and undesirable behavior. AT&T and other CLECs require both timely and accurate FOCs in order to provide a viable service capability for their customers. The very purpose of the FOC is to confirm to a CLEC that its order will be worked as submitted, or worked with the modifications specified on the confirmation. Yet, when BA returns LSRCs with incomplete and incorrect information -- as the September 1998 data shows BA does 40% of the time -- CLECs effectively receive no notice at all that the order will be worked in the manner requested. Instead, AT&T's receipt of an invalid (i.e., incorrect and incomplete) LSRC serves merely as a red flag that BA's hot cut loop provisioning process has already broken down. Consequently, AT&T believes that the existing language of the carrier-to-carrier metrics both expressly and impliedly require BA to provide complete and accurate FOCs in a timely manner, and to measure the FOC provisioning interval from a valid LSR to a valid LSRC. Any other result would be both illogical and commercially unreasonable.

The issue is of not only theoretical importance; it also has practical consequences. BA has no systematic method for determining (and therefore of reporting) whether its FOCs are complete and accurate. AT&T performed that analysis in this exercise. Out of 243 orders agreed upon by

AT&T and BA, AT&T found that 97 FOCs -- or approximately 40% of the FOCs BA sent back -- were incomplete, inaccurate or both. See Attachment 1. This finding is important in its own right as evidence of a significant commercial problem in BA's provisioning of loops. It also has significant implications for the purpose of metric development.

The importance of an independent metric on FOC completeness and accuracy is undeniable. Yet, the presence of a metric that BA wrongly and illogically construes as measuring speed without a companion metric measuring accuracy has created incentives for BA to sacrifice the latter for the former. CLECs, however, have accepted neither the necessity nor the reasonableness of such a tradeoff. Two out of every five FOCs AT&T received were wrong and this is not the objective. AT&T and other CLECs have insisted, we believe reasonably, that the current FOC provisioning metric implies that BA is not entitled to sacrifice either speed on the one hand or completeness and accuracy on the other. The first implication of this finding is that there is a need for an independent metric on LSRC accuracy.

Second, because accuracy is logically a required component of FOC timeliness, BA's system of measuring timeliness must be adjusted to reflect the delay that occurs when incomplete or inaccurate FOCs are supplemented or corrected. BA's systems do not currently do this because BA has not accepted the notion that completeness and accuracy are an inherent part of the

definition of the FOC provisioning interval and because BA has no method for capturing FOC accuracy in its systems.

Our recent work shows that this interpretation has had significant real-world impacts in measuring FOC provisioning intervals. Unlike BA, AT&T calculated FOC intervals between a valid LSR and a valid LSRC. This difference, combined with the high percentage of BA FOCs that were not valid, explains a significant part of the difference between AT&T's calculation of BA's FOC interval in September 1998 and BA's own calculations for that period. This exercise also demonstrates that the existing carrier-to-carrier metric for order confirmation timeliness (OR-1) requires clarification to explicitly state that the period to be measured is from receipt of a valid LSR to distribution of a valid LSRC, a suggestion BA has explicitly rejected in the carrier-to-carrier metric proceeding. BA's data gathering and measurement process must also be revised so that its future performance reports will clearly show whether it is capable of providing CLECs accurate and complete FOCs in a timely manner -- which the September 1998 data plainly shows that it is not.

2. Hot Cut Loop Provisioning

Perhaps the most startling and important fact to come out of this exercise with respect to metrics is that there is no metric that captures BA's ability to provision loops correctly.

In addition and as a direct consequence, no metric captures BA's ability to provision loops correctly, on time.

These facts came out of the carriers' difficulty in reconciling the large differences in their reported loop provisioning intervals. The reconciliation process showed there was a significant difference because AT&T measures the provisioning interval as running from the date of a valid LSR until the successful completion of the provisioning process. In contrast, BA measured only the interval from the receipt of a valid LSR until it completed its designated work to provision the loop, whether or not the work was done correctly or the line worked. In simple terms, as AT&T has stressed to Judge Brillling and the carrier-to-carrier metric proceeding participants, BA's measurement is meaningless. AT&T's measurement assumes that the job is not done until the line has been cut over to AT&T and works as the customer is entitled to have it work. BA's measurement merely tallies work time and ignores whether the work was performed successfully. Customers deserve better.

The difference in the parties' respective methods for calculating intervals is interesting, but it may be the least significant aspect of this disclosure. More fundamental -- as AT&T has explained and shown in the carrier-to-carrier metric sessions over the past several weeks -- is the fact that BA has no internal method for calculating how many hot cuts it performs successfully and how many unsuccessfully. Thus, it does not

report in any carrier metric any evidence on its actual performance of hot cuts. It does not and cannot do so because, as BA's representatives made clear at the January 22nd meeting in Albany, it has no available database on hot cut loop provisioning troubles. It apparently doesn't know how well or badly it provisions loops.

The metric reporting issue that has masked this fact arises, in part, out of BA's definition of two terms: "provisioning" and "maintenance." BA defines (and measures) provisioning solely on the basis of the time it takes to perform assigned tasks, whether those tasks produce a successful result or not. Hence, its provisioning metrics don't capture whether the provisioning was successful.

The incidence of provisioning problems might show up in maintenance metrics, but they do not. While BA defines lines in need of maintenance in terms of customer service problems, it excludes from the maintenance category, provisioning problems arising within the first 48 hours.¹ As a result of these definitions, BA collects no data on loops that were provisioned unsuccessfully and reports no such data.

This is patently unacceptable. As everyone in this industry knows, the greatest risk to customer service occurs when something is changed: when the physical wires are touched or the

¹ AT&T initially assumed that the provisioning interval was 24 hours but has been informed by KPMG that the actual interval is 48 hours.

switch instructions are altered. Hot cuts require both activities and are thus prime candidates for service-affecting problems. The data provided by AT&T here demonstrate this clearly. Major problems occur at the cutover because of mistakes in process or performance during the cutover activities. Once a line is successfully transferred from a BA switch to a CLEC collocation facility, the degree of risk declines. It is, therefore, virtually certain that the trouble rate during provisioning is much higher than the trouble rate 24 or 48 hours after provisioning has been successfully completed. Yet, BA's methods exclude most, and apparently all trouble events that occur during provisioning.²

The data failure has enormous consequences. While BA was unable to generate any data on provisioning problems during this test period (despite the fact that AT&T provided BA on 1/20/99 and 1/22/99 with BA's own TXNU internal circuit identification numbers for those lines that didn't work when initially provisioned by BA due to BA's errors), AT&T was able to generate some such data. In summary, those data show that BA provisioned 600 AT&T hot cut lines (not orders) during September

² It appears clear that BA will not report a provisioning problem that is corrected within 48 hours as a maintenance problem. We understand, but are unable to say with certitude, that even troubles that remain unresolved for longer periods are never transferred to the maintenance organizations and thus never find their way into the metric reports. If this is true, and BA should be able to confirm or deny it, then no provisioning failure of any kind is ever captured in any BA metric report.

1998. As initially provisioned by BA, 165 -- or 27.5% -- of those lines simply didn't work (i.e., either had no dial tone or only outbound, but not inbound calling capability) because of BA errors relating to the proper implementation of loop hot cuts and number portability. This is a fact of primary importance.

Secondarily, these data also show the gross inaccuracy of the existing provisioning interval metric reports. The problems on thirty of these 165 lines were corrected on the committed provisioning due date, but 135 were not fixed until after that date. Thus, of the 600 lines provisioned for AT&T by BA in September 1998, 135 were not working until sometime after the committed due date for this reason alone. Consequently, BA actually failed to meet its committed due date for 135 of the 600 lines -- or not less than 22.5% -- because of its own provisioning errors alone.

AT&T's review shows that the principal error categories resulting in service disruption and downtime when BA initially provisioned these 165 lines were as follows:

- BA performed hot cuts prior to the scheduled time or after the agreed-upon window period for the scheduled time.
- BA cross-connected the loop to an incorrect cable and pair assignment.
- BA's cabling inside the central office was found to be defective after the hot cut had been performed.

- BA's cabling outside the central office was found to be defective after the hot cut had been performed.
- BA committed errors relating to proper implementation of Local Number Portability in BA's switching platform.

AT&T's analysis also shows that 12 other lines (of the 600 lines provisioned) experienced service disruptions caused by AT&T's own errors or network problems. These AT&T errors or network problems included: (1) defective facilities within the AT&T network; and (2) making incorrect switch translations. While AT&T bears responsibility for these problems and the resulting service disruptions, BA bears an independent responsibility for these cases as well. Under standard industry practice, explicitly incorporated into the BA/TCG interconnection agreement, BA has committed to perform line testing for AT&T at BA's intermediate distribution frame ("IDF") 48 hours prior to the scheduled conversion from BA to AT&T. Had BA performed this testing as it had agreed it would and was required to do, AT&T's mistakes would have been identified before the cutover and the customer's service disruption could (and should) have been avoided.

In short, the reconciliation exercise demonstrates profound problems with the operational aspects of the hot cut provisioning process, as well an absence of any performance reporting of provisioning troubles during that process.

We expect BA to raise a series of replies to this, the most obvious will be to blame such problems as exist on AT&T. Yet, despite the fact that AT&T provided BA with BA's own TXNU circuit identification numbers for each of these 165 lines, BA itself has no data on the trouble incidents for these lines during provisioning and that is a failure in its own right. Consequently, the best available data, indeed the only available data, attributes to BA, service disruption and downtime during the provisioning process in at least 27.5% of all hot cuts provisioned for AT&T in September 1998. This is not a commercially acceptable outcome by any standard.

In sum, BA does not have a commercially viable set of processes for provisioning hot cuts with number portability today, and there are no current metrics to capture either BA's current performance or any future improvements that may and hopefully will occur.³

3. Actions BA Should Take Immediately In Order To Reduce Service Disruptions

AT&T is committed to improving the processes at its end, but cannot unilaterally prevent outages from occurring. Most

³ One issue that we have not captured in the data or presented here, but that is of profound importance, is the problem of developing efficient systems for coordinating quick corrections when provisioning problems put customers out of service. We do not believe that BA will dispute that this is an area where we and other carriers must work together to improve. We believe however, and here we do not assume we have BA's agreement, that it is essential to develop a metric or metrics that will capture the time it takes to restore the customer to service on the network of its new carrier.

of these problems are long-standing. They must be solved first and foremost because neither we as carriers nor this Commission as overseer of this industry can tolerate treating customers this way.

From the CLEC perspective, however, there are additional and pressing reasons why all problems related to loop provisioning must be solved quickly and completely. The loop provisioning problems AT&T has experienced serve to limit severely AT&T's ability to market to New York local service customers in competition with BA. They are enormously time and cost consuming. They damage AT&T's reputation with individual customers and, from a competitive standpoint more ominously, potential new customers. We have already forwarded to you the article in the Boston Globe, reporting on customer troubles resulting from precisely these types of provisioning failures. BA has claimed that some of these provisioning problems were do to its own errors and some to errors by AT&T. We need not debate these particular cases. What is pertinent here is the customer comments that they would not risk in the future, disruption of their service to go to any other carrier. Thus, damage to the credibility of the provisioning process threatens competition in its entirety. It is therefore crucial that BA place the highest priority on working with AT&T and others to resolve these problems quickly and to ensure a smooth, seamless and above all reliable process for transferring customers between carriers.

In order to reduce the service disruptions experienced by customers in the process of switching from BA to AT&T, we strongly recommend that BA immediately adopt the following process changes:

1. BA must test for AT&T dial tone at its intermediate distribution frame ("IDF") 48 hours in advance of a scheduled hot cut. By testing for AT&T dial tone at the IDF in BA's central office, the integrity of all of the network elements between the AT&T switch and the IDF are tested, including many elements solely under BA's control. For example, the test will validate the cable and pair assignments. Where a faulty or incorrectly provisioned network element is present, a timely test will afford the parties 48 hours to postpone the hot cut and resolve the specific problem.
2. BA must conduct a test, concurrent with the one referred to in the preceding paragraph, to verify the Automatic Number Identification ("ANI") as provisioned in the BA switching platform 48 hours in advance of a hot cut. This test will ensure that the physical loop that will later be disconnected from the BA switch and reconnected to the IDF connected to AT&T's switch actually belongs to the customer moving to AT&T.

3. BA must allow AT&T to open a trouble ticket directly with BA's trouble management organization as soon as AT&T becomes aware that a new AT&T customer is experiencing a service disruption following a hot cut, and not require AT&T to work through the RCCC.⁴
4. BA must provide timely and detailed status reports of unresolved BA trouble tickets as well as detailed and timely information concerning the resolution of closed tickets.
5. The BA representative that notifies AT&T that BA has completed its activities associated with a hot cut must stay on the line while AT&T verifies that the hot cut and number port have been successfully completed. This process will allow emergency restoration procedures to begin immediately in the event that a service disruption is identified.

The above proposals are minimal steps that can and should be taken immediately. In addition, there are likely other improvements that can be developed to BA/CLEC processes so that

⁴ BA and AT&T did not attempt to address AT&T's problematic experiences in trying to resolve customer problems through the RCCC in this exercise. That experience is described, however, in the Fish/Guidry affidavit.

customers who desire to switch carriers for local service are not punished in the process. We propose that the Commission convene an industry-wide collaborative proceeding -- whether in the form of the existing carrier-to-carrier metric group or otherwise -- to ensure that these problems are resolved quickly in one forum for the benefit of all carriers and their customers.

We hope these data and comments are useful. Please do not hesitate to call either of us if you require any additional information or clarification.

Very truly yours,

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**DESCRIPTION OF ERRORS CONTAINED
IN 97 LSRCs THAT CONTAINED
INACCURATE OR INCOMPLETE INFORMATION**

Missing or Incorrect Information on LSRCs

(Listed by category as depicted on AT&T's LSR/LSRC Analysis provided to BA and Staff on 1/18/99 and addressed at the 1/22/99 Albany meeting.)

<u>Category</u>	<u># of LSRCs</u>	<u>Which LSRCs (out of 243 on Master List)</u>
0	2	33, 70
1	77	(All)
2	1	10
3	2	11, 18
4	11	69, 89, 131, 156, 160, 178, 185, 186, 191, 197, 242
5	3	105, 107, 170
6	<u>1</u>	215
Total	97	

Error Type and Count

Following is a list of the types of errors, and the number of each type of error, indicated on the 97 LSRCs that contained an error. Note that some LSRCs contained more than one type of error.

Missing or Incomplete C Order # (BA's internal work order # associated with C.O. frame)	10
Wrong C Order # (BA's internal work order # associated with C.O. frame)	6
Missing or Incomplete D Order # (BA's internal work order # associated with the software update for removing a customer's telephone number from BA's switch)	17
Missing or Incomplete TXNU (BA's internal circuit identification #)	26
Wrong TXNU (BA's internal circuit identification #)	6
Missing or Incomplete Telephone Number	10
Wrong Telephone Number	12
Missing or Incomplete Cable and Pair Assignment	4
Wrong Cable and Pair Assignment	5
Incorrect/ missing Cable ID	3
LSRC information not included for all lines	3
Missing Due Date	3
Other	3
Total Errors	108

ATTACHMENT 8

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Telephone)
Company for Approval of its Statement)
of Generally Available Terms and)
Conditions Pursuant To Section 252 of) Case No. 97-C-0271
The Telecommunications Act of 1996 And)
Draft Filing of Petition For InterLATA)
Entry Pursuant to Section 271 Of The)
Telecommunications Act of 1996)
)

JOINT AFFIDAVIT OF RAYMOND CRAFTON, ROBERT DICKEY,
S. JEANNINE GUIDRY, MICHAEL KALB, COLIN L. MALLOWS,
JACK MEEK, JOHN R. REESE, THOMAS ROONEY
AND TIMOTHY ROWLAND ON BEHALF OF AT&T CORP.

PUBLIC VERSION

under revised procedures for BA-NY's hot cut loop provisioning since March 23, 1999. Because experience under the new procedures is so limited, both in time and in volume of hot cut loop orders, it is premature to speculate whether BA-NY will be able to actually execute on its commitments regarding the revised hot cut loop provisioning procedures. Nevertheless, as explained below, BA-NY's patently unacceptable hot cut loop performance for AT&T during the first four weeks of the revised procedures -- March 23 through April 19 -- is not a good sign.

130. During that initial four week period of March 23 through April 19, and even with very small volumes of AT&T hot cut loop orders, approximately 17% of the hot cut loop orders that BA-NY attempted to cutover to AT&T resulted in hot cut loops that did not work as initially provisioned by BA-NY due to BA-NY's acknowledged provisioning errors. Each of these cases resulted in an interruption of the customer's telephone service ranging from about one-half hour to more than forty-eight hours. In short, based upon actual experience with BA-NY's hot cut loop performance, CLECs cannot function in the market using the UNE-Loop strategy because BA-NY's service is simply not reliable.

1. **BA-NY Has Not Carried Out Coordinated Loop Hot Cuts On A Commercially Reasonable Basis, And Its Performance Reports To Date Have Masked Its Actual Hot Cut Loop Performance That Has Resulted In Widespread Interruption Of Customers' Telephone Service.**

131. AT&T and other CLECs have experienced significant problems with BA-NY's performance of coordinated loop hot cuts over the past two years. The volumes of orders have been very small, but even with these small volumes, BA-NY has not been able to carry out coordinated loop hot cuts in a timely and accurate manner.

132. Notwithstanding these facts, BA-NY has consistently claimed that its coordinated hot cut performance was excellent. See, e.g., Gary Butler Supp. Aff. ¶¶ 10-13 and Exh. 1 (11/4/97) (claiming 90% of hot cuts performed on time); Joint Affidavit of Julie A. Canny, Karen Maguire, Patrick J. Stevens and Craig Saloff, ¶¶ 33-38 and Exh. Part C (9/11/98) (claiming 95% of hot cuts completed on time). This claim was so contrary to the experience of AT&T and other CLECs that a joint review was conducted with the participation of Commission Staff, AT&T, and BA-NY to review BA-NY's performance and metrics for coordinated loop hot cuts. AT&T's findings, which led to intense efforts to fix BA-NY's broken hot cut loop provisioning process, are set forth in a February 5, 1999 Letter from Harry Davidow and Robert Mulvee to Daniel M. Martin, NYS Department of Public Service (the "Davidow/Mulvee" Letter). The principal conclusion was that BA-NY's performance metrics for coordinated loop hot cuts were meaningless, because they failed to measure the accuracy of BA-NY's performance. In essence, BA-NY had

measured intervals for certain events -- the issuance of a FOC and the completion of work relating to the coordinated loop hot cut -- without regard to whether the FOC was accurate or whether the coordinated loop hot cut was completed accurately and without undue disruption to the customer. *As the performance metrics did not -- and BA-NY could not -- track how accurately BA-NY performed its work, its performance data had no commercial (or probative) value. It was meaningless for BA-NY to provide data that a coordinated loop hot cut was completed "on time" if it was not also completed correctly -- i.e., as initially provisioned, the hot cut loop did not work -- and the customer lost telephone service during the process.

133. The evidence developed by AT&T also demonstrated that there were significant problems with BA-NY's provisioning of coordinated loop hot cuts. Using data for September 1998 that both BA-NY and AT&T reviewed, 40 percent of BA-NY's FOCs/LSRCs that were returned by BA-NY to AT&T were incomplete and/or incorrect. Without accurate FOCs, AT&T could not know when the cutover was scheduled to take place and could not plan its work necessary to complete the coordinated loop hot cut at the appropriate time. Davidow/Mulvee Letter, pp. 6-10.

134. The evidence with respect to BA-NY's actual performance was equally troublesome. In September 1998, at least 27.5 percent of the lines failed to work initially because

of BA-NY provisioning errors. Id., pp. 10-16. Moreover, for approximately 22.5% of the orders, BA-NY failed to meet its committed due date due to an error by BA-NY in the provisioning process. The provisioning errors included cases in which BA-NY personnel performed the loop cutover at the incorrect time (either before the scheduled time or after the agreed-upon period for the cutover); connected the loop to the wrong cable and pair assignment; failed to make available appropriate cabling, either inside or outside BA-NY's central office; and committed errors at the BA-NY switch relating to local number portability. Id., pp. 14-15. A CLEC could not offer UNE-Loop-based service to customers with that level of errors in BA-NY's transfer of service.

135. KPMG's independent test found equally significant problems in BA-NY's provisioning of coordinated loop hot cuts. KPMG Exception ID No. 9 noted that the methods and procedures BA-NY established for coordination of the provisioning processes were not being followed consistently. Even though BA-NY had established written procedures governing coordinated loop hot cuts, BA-NY personnel failed to follow those procedures. Specifically with respect to coordinated loop hot cuts, KPMG found that BA-NY had consistently failed to carry out the steps necessary to complete the coordinated hot cut:

ATTACHMENT 9