

Compliance Analysis

Staff reviewed most of the studies filed by SWBT and AT&T, but concentrated on certain studies, and certain aspects of the studies. During the course of its review, Staff discussed various issues with SWBT and AT&T representatives. Staff concludes that both SWBT and AT&T generally made a good faith effort to comply with the Commission's orders, but neither of the filings is in perfect compliance with the Commission's requirements.

The following comments are organized around certain inputs and issues that Staff considers to be particularly important and/or most disputed. Staff will not discuss areas where it feels SWBT has fully complied with the Commission's requirements or where the discrepancy does not have a significant impact..

Labor Costs

The Commission ordered SWBT to remove Transitional Benefit Obligation (TBO), sales commission, retail bonuses and award payments from its labor rate calculations. Additionally, SWBT was required to remove overtime and premium time when a separate rate element is proposed for overtime and premium time charges. Finally, SWBT must remove salary related support asset expenses in the calculation of the support asset factor. In Comments filed on January 25 and February 12, 1999, Staff, SWBT, AT&T and other parties addressed the extent to which SWBT complied with these requirements. In its Final Order, the Commission did not discuss labor rates, or resolve the outstanding issues concerning the development of those rates. Since the non-recurring cost studies consist almost entirely of labor, these issues are more significant in the present context. For this reason, the

Commission might want to address the outstanding issues, and thus Staff will reiterate some of its earlier comments.

SWBT removed TBO costs from the labor rates presented in its Cost Factor Binder. Sales commissions previously were included in the calculation of SWBT's Premium Time loading factor. SWBT has removed these costs from the labor rates presented in its Cost Factor Binder. SWBT claims that bonuses and awards never were included in any labor rates. As proof it has provided copies of several internal account descriptions to which bonuses and awards are booked. According to SWBT, no costs from these accounts were included in the labor rates.

SWBT was required to remove the salary related support asset expenses in its calculation of the support asset factor, and remove TBO's to the extent that they were included in the calculation of support asset factors. SWBT removed TBO's in the calculation of Kansas-specific support asset expenses. However, it does not appear that SWBT made the analogous adjustments when calculating support asset expenses for Arkansas, Missouri, Oklahoma and Texas. SWBT used data from all five states to calculate a company-wide support asset factor, which was then used in the cost studies filed in this proceeding. Staff believes all Commission-ordered support asset adjustments should have been made to the support asset calculations for all 5 states. If SWBT had done this, the labor rates would have been reduced below the level reflected in the recently submitted studies.

Electronic Ordering

The Commission held:

Staff and AT&T have persuasively argued that charges for NRCs should not be based on inefficient manual processing systems. Manual processing is not consistent with TELRIC principles requiring forward looking least cost methods. (July 15-16, 1998 Tr. at 3531-34 and 2890-99) Obviously, costing of manual methods does not reflect the efficiencies and costs for electronic processing of service orders. Furthermore, assumption of manual service order processing to any significant degree provides SWBT with a large economic incentive to delay implementation of electronic service order flow through, with attendant negative consequences for the development of competition. (July 15-16, 1998 Tr. At 2890-99) Therefore, electronic processing of orders is a reasonable assumption for calculation of NRCs, which is consistent and arguably required under the TELRIC costing principles which this Commission and the FCC have adopted. [Order on Reconsideration, ¶ 70].

SWBT maintains that if a CLEC places an order outside of its OSS, then SWBT should be compensated for the resulting costs. Accordingly, SWBT filed 2 service order cost studies—one assuming fully manual processing, and one assuming fully electronic processing SWBT would like to charge rates based on the manual costs whenever a CLEC submits an order without using SWBT's OSS, such as by phone or fax.

The Commission has already addressed this issue, holding as follows:

SWBT proposed different rates for electronically processed orders and for orders which are manually processed. AT&T and Staff urged the Commission to establish prices based on the cost to process orders electronically. SWBT is developing the ability to process electronic orders. The availability of an automated ordering process is preferable to a manual process. Basing the prices on the assumption that all orders are processed electronically provides an additional incentive for SWBT to develop its operational support system. The Commission agrees with AT&T and Staff, thus the adopted NRCs reflect the electronic processing of orders and a low fall-out rate. [Final Order, ¶ 92].

SWBT's submission of a study based upon fully manual processes is inconsistent with this portion of the Order on Reconsideration. SWBT supports its submission by arguing that even if its OSS were fully

operational, some CLECs might still prefer to place orders by other means. SWBT apparently believes that it should be compensated for the additional costs imposed by the CLEC's decision to submit the order via FAX or telephone. While Staff sees some merit to this reasoning, the proposed solution—imposing very high NRC charges based upon 100% manual processing—is too draconian.¹ A more reasonable solution would be to impose a modest surcharge, which is sufficient to recover the cost of having a SWBT clerical employee input the order into its OSS. From that point forward, the order should be assumed to flow through the ordering and provisioning process like any other order.

Furthermore, both of SWBT's service order studies are new; neither study represents a rerun of its original service order study. Yet, in its Order on Reconsideration, the Commission held:

In order to provide a stable basis for comparison to NRCs which were earlier calculated using different assumptions and conditions, SWBT's NRC cost studies shall be modified from SWBT's latest NRC submission to the extent outlined herein. [¶ 70].

Staff believes SWBT should have rerun its service order study to be consistent with its original filing, modified only to the extent required by the Commission's orders. This is the approach used by AT&T in its November 9, 1999 filing, and is the approach generally used by SWBT in developing its other revised studies.

¹ Proposed charges range from \$15.70 to \$113.04, depending upon the type of order.

Five Percent Fall Out

Provisioning network elements typically involves multiple stages, with numerous work activities within each stage. For example, provisioning an 8db loop may involve “service order” activities (e.g., order entry, order distribution, etc...), circuit provisioning activities (e.g., corrective action, input administrative data, etc...), and installation activities (e.g., order analysis, travel to customer premises, etc...). During each of these stages, the potential exists for automated processes to fail, requiring manual intervention. When this occurs, an order is said to fall out; one of the disputed issues in this proceeding is the level of “fall out” which should be assumed in developing the NRC studies. With regard to this issue, the Commission held:

It is unrealistic and illogical to expect that any business would on a long term basis accept a design or process that resulted in a significant percentage of its incoming business orders falling out of normal automated processing procedures. This fall out would cause expensive additional manual handling (employee time), ill will and complaints from customers, and lost business. Thus, as stated by Staff fall out rates should be determined with a long-run view toward process improvement and efficient operation.... AT&T suggests that... in a competitive environment in the long run, SWBT should be able to achieve a 98% flow through rate, even for complex orders. ...We believe it would go too far at this time to require a 1-2% fall out rate, since clearly systems still are being developed and implemented. However, as a policy matter we consider it to be essential to adopt forward looking least cost standards as closely as reasonable, and to avoid institutionalizing disincentives which have anti-competitive effect and result in poorer service to consumers. On balance, it is clear that high fall out rates have the consequence of added cost for competitors, and delays and poor service for consumers. This is not the expected result of a competitive telecommunications market, so high fall out rates should not be assumed in the NRC cost studies. For these reasons we adopt the 5% fall out figure, recognizing that for the long run it is still more than the 1-2% estimations provided by AT&T and SWBT. [Order on Reconsideration, ¶ 70].

SWBT apparently interprets this section of the Order on Reconsideration to mean that a 5% fall out rate should be applied to service order activity; no changes are required to its fall out assumptions in

other parts of its NRC studies. Apparently, SWBT believes that the phrase “incoming business orders” limits the above discussion to the service order process. Consistent with this interpretation, in its electronic service order study SWBT assumed that manual processes will occur 5% of the time. However, no other changes were made to its fall out assumptions in other parts of the UNE provisioning process.

In its other revised studies, SWBT continues to make a variety of different assumptions regarding the extent to which various activities will be required, and the extent to which these activities will need to be performed manually. For example, in its switching features study, SWBT assumes that 25% of the hunting arrangement orders will fall out of the automated system and require manual intervention. SWBT makes similar assumptions in other studies. In its loop studies, SWBT assumes that various circuit provisioning activities will sometimes be required. SWBT estimated the amount of time it would take to manually perform these activities, and then applied a combination of 2 factors to arrive at the “net” work time reflected in its loop studies.

Table 1 below shows the work times estimated by SWBT for its 8db loop circuit provisioning center (CPC) activities. For simplicity, only the work times associated with the first bop are included. As shown, SWBT applied a combination of 2 factors to arrive at the work times used in its 8db loop study. The Company multiplied the gross work times by the product of a “fall out” percentage and a “probability” percentage. For example, the *****Proprietary Proprietary***** minutes associated with “bop problem resolution” activity is multiplied by the product of *****Proprietary Proprietary***** percent and *****Proprietary Proprietary***** percent, resulting in a net work time of *****Proprietary Proprietary***** minutes for this activity.

SWBT's assumptions equate to a cumulative fallout of 59.3% percent for the CPC installation activities, and cumulative fallout of 6.9% percent for the CPC disconnect activities. Cumulative fall outs are calculated as follows. First, for each work activity, the individual fall out factor is multiplied by the individual "probability" factor to determine the probability that the activity in question will need to be performed manually. For example, in the installation example in Table 1 below, *****Proprietary Proprietary***** of the orders will require manual "corrective action" (100% times *****Proprietary Proprietary*****). Second, for each work activity, the product from the first step is subtracted from 1, to determine the probability that this activity can be accomplished without manual intervention. For example, 1 minus *****Proprietary Proprietary***** equals *****Proprietary Proprietary*****. Accordingly, *****Proprietary Proprietary***** of the orders can be successfully be accomplished without needing manual "corrective action" during the installation process.

Third, all the differences computed in the second step are multiplied together to get an overall "success" rate. In our installation example, the cumulative success rate is *****Proprietary Proprietary***** times *****Proprietary Proprietary***** times *****Proprietary Proprietary***** times *****Proprietary Proprietary***** equals 40.7%. The cumulative fall out rate for the installation process is equal to 1 minus the success rate, or 1 minus 40.7%, which is 59.3%. Similarly, the cumulative fall out rate for the disconnect process is 1 minus 93.1%, or 6.9%.

Table 1

Proprietary

	A	B	C	D	E	F
Work Group / Functions	Gross Work Times	Fall Out Factor	Probability	Fallout Rate $B * C$	Success Rate $1 - D$	Net Work Times $(A * D)$
Installation						
Corrective Action SOAC/SOAD						
Manual Order Entry						
Input Administrative Data						
Loop Input						
Loop Problem Resolution						
Disconnect						
Corrective Action SOAC/SOAD						
Manual Order Entry						
Input Administrative Data						

Source: SWBT Unbundled Network Elements Nonrecurring Cost Studies Workpapers, October, 1999, p. 110071.

A somewhat similar process was used in the other studies. However, SWBT only applied a single set of percentage factors to the CPC activities for its other types of loops. For PRI and BRI loops for

ISDN service, the factor was 100%, and thus SWBT effectively assumed that every order would require manual activity.

Unlike SWBT, AT&T applied the 5% fall out assumption to both the service order activity and the activities that occur later in the provisioning process. More specifically, AT&T multiplied each of SWBT's net CPC work times by 5%. However, AT&T apparently was unaware that SWBT's "net" CPC work times for the 8db loop had already been reduced through the application of SWBT's fall out and probability factors. As a result, it appears that AT&T's November 9, 1999 studies understate the fall out rate, since they use SWBT's net work times as well as the Commission-mandated 5% fall out rate.

There is some ambiguity regarding what the Commission meant by "5% fall out," but Staff believes neither AT&T nor SWBT has correctly implemented this aspect of the Commission's order. SWBT is only applying the 5% factor to its electronic service order study. AT&T correctly applied the 5% factor to other studies as well, but instead of substituting this factor for the probabilities used by SWBT in its original study, it applied the 5% factor to the net result of the original SWBT probabilities. The latter procedure has the effect of overshooting the mark, yielding a net fall out percentage of less than 5%.

Furthermore, both SWBT and AT&T are applying the Commission's fall out factor to individual work activities, rather than looking at the net fall out rate for an entire process within a study. When the 5% rate is applied to individual activities within an overall process, the net result is to assume a greater fall out rate for the process as a whole. Consider, for example, a process which consists of 5 activities, each of which has a 90% automated "success rate." In other words, each of these 5 activities

has 10% chance of needing manual intervention. There is a 59% chance of an order being automatically processed in its entirety; 41% of the orders will fall out of the automatic process.

While more than one interpretation of the Commission's Order is possible, Staff believes the Commission intended to assume a cumulative fall out rate of 5 percent for all of the related work activities within a particular study, thereby assuming that 95% of the time the process can be completed without manual intervention. To arrive at a cumulative fall out of 5 percent, all of the related activities should be considered as a group, with the exception of those activities where the Commission's DIP and DOP assumptions apply. When studies include two completely different processes (e.g. both installation and disconnect work, which are completely separate processes), it would be reasonable to assume a 5% cumulative falbut for each such process.

Table 2 presents an example of Staff's recommended approach. As shown, a uniform "fall out" factor of approximately 5.661% has been applied to each installation work activity. Using the method described above, these fall out factors, when weighted by SWBT's "probability" factors, result in an overall (cumulative) fall out rate of 5 percent for the installation process as a whole.

Table 2

Proprietary

	A	B	C	D	E	F
Work Group / Functions	Gross Work Times	Fall Out	Probability	$B * C$	$1 - D$	Net Work Times
Installation						
Corrective Action SOAC/SOAD						
Manual Order Entry						
Input Administrative Data						
Loop Input						
Loop Problem Resolution						
Disconnect						
Corrective Action SOAC/SOAD						
Manual Order Entry						
Input Administrative Data						

Source: SWBT Unbundled Network Elements Nonrecurring Cost Studies Workpapers, October, 1999, p. 110071.

Similarly, a uniform “fall out” factor of approximately 72.247% has been applied to each disconnect work activity; when weighted by SWBT’s “probability” factors, this results in a cumulative fall out rate

of 5 percent for the disconnect process as a whole (99.278% times 96.388% times 99.278% equals 95.0%).

TIRKS Expenses

In its Order on reconsideration, the Commission held:

we find it inappropriate to assume the use of TIRKS in performing the NRC cost calculations. Inventorying UNEs in the trunks inventory and record keeping system (TIRKS) database for purposes of the NRC cost study would be contrary to SWBT's provisioning of its own "regular" retail telephone service in its operations, and would be discriminatory and inconsistent with the federal Act or Federal Communications Commission (FCC) rules. In calculating its proposed NRC costs, SWBT shall not include costs associated with the TIRKS database. [¶71].

SWBT only removed TIRKS related expenses from the 8db loop. According to the Company, SWBT incurs TIRKS expenses when provisioning other types of loops in a retail context, thus it has interpreted the Commission's decision as only applying to the 8db loop. In its study, SWBT identifies TIRKS expenses to include the following items: check accuracy of order, order problem resolution, facility selection process, facility availability problem resolution, PFIO, manual/custom design process, design problem resolution, and distribution. AT&T has not removed any of the costs associated with TIRKS from its studies, but this may have been an oversight.

Staff believes that if an element is provisioned by SWBT in a retail environment without the use of TIRKS, then such expenses should be excluded from the studies filed pursuant to the Commission's Order on Reconsideration. To the extent 8db loops are the only ones that do not require use of

TIRKS, SWBT's revised studies appear to comply with this provision of the Commission's Order on Reconsideration.

Dedicated Outside Plant (DOP)

In its Order on Reconsideration, the Commission required SWBT to assume that outside plant was left in place, or "dedicated", 80 percent of the time. [¶70]. SWBT's refiled 8db loop study complies with the Commission's Order on Reconsideration. However, other loops, such as BRI, PRI and 4-wire, use different assumptions. BRI costs are computed using a 5% DOP assumption while PRI and 4-wire loops use a 0% DOP assumption. AT&T used a 80% DOP factor for each of the 8db, BRI, and PRI loops. AT&T did not file a 4-wire loop NRC study. SWBT does not include any DOP assumptions in its 4-wire loop study, because these are "designed" circuits. Presumably, this same rationale applies to its PRI loop study. SWBT has not explained why it uses a 5 percent DOP factor in its BRI study, but it is reasonable to assume a much lower DOP frequency in the context of BRI loops. These loops are conditioned for ISDN service. If a new customer needs an BRI loop for ISDN service, the odds are slim that a fully conditioned BRI loop will be available ready-to-go without requiring outside plant work. Because ISDN is so specialized, and because so few customers use this service, a much lower DOP frequency is appropriate.

The Commission's Order on Reconsideration adopts an 80% DOP factor, but it does not specify whether this should apply to all types of loops, or just to ordinary 8db loops. The appropriate resolution of this issue depends, in part, upon another issue which has not been explicitly resolved in the Commission's orders—under what circumstances will the outside plant related non-recurring charges

apply? Staff believes non-recurring charges should not apply in situations where a customer is simply changing carriers. For example, if a customer who currently receives ISDN service from SWBT switches to a CLEC, outside plant work should rarely, if every, be necessary, and therefore the non recurring loop installation charges should not apply. Even if the the ISDN service will be provided by the CLEC's switch, rather than SWBT's switch, no outside plant related NRC charges would be appropriate. Instead, non recurring cross connect charges should apply, in order to route the existing ISDN loop to the CLEC's co-located facilities. Under this interpretation, outside plant related charges should only in situations where the customer or the service is new. A mere change in carriers would not trigger the outside plant related non recurring charges, and thus it would be reasonable to assume that dedicated outside plant would rarely, if ever, be available for providing ISDN and four wire loops.

Dedicated Inside Plant (DIP)

According to the Commission, "SWBT already uses DIP (i.e., SWBT leaves the loop and port connected) for its own internal operations. This procedure minimizes the inefficiencies when one SWBT customer replaces the original one." [Id.]. Accordingly, the Commission required SWBT to assume a 100% DIP factor in calculating its NRCs. [Id.]. Staff could find no evidence that SWBT complied with this provision of the Order on Reconsideration. Furthermore, SWBT filed revised port studies which appear to completely ignore the potential efficiencies associated with DIP. The 100% DIP factor mandated by the Order on Reconsideration would seem to suggest that NRC charges should not apply when a CLEC orders a port. To the extent there are labor costs associated with installation of plug-in units and other activities involved in provisioning of ports, these costs are incurred at the time the port is

initially configured, and thus would be included in the recurring cost studies, and recovered as part of the recurring rental fees. Given a 100% DIP assumption, there does not appear to be any need for a port study of the type filed by SWBT.

Switch Features

SWBT submitted a non-recurring cost study for unbundled local switching features. As mentioned above, in this revised study, SWBT assumed a flow through rate of 75% and a resulting manual intervention rate of 25% for the hunting procedure. As with all of its studies, SWBT should assume a fall out rate of 5%, as further described above.