## 5.2 The NASUCA Model Results Indicate that Forward-Looking SLC Costs are under $5 for about Three-Quarters of Residential and Single-Line Business Customers, and Therefore that the SLC Cap Should not be Increased

The major finding of estimating SLC costs using the Synthesis Model is that 75% of residential and single-line business customers are located in UNE zones that have forward-looking SLC costs of less than $5.00 (See Table 3). This finding, along with the TELRIC cost estimates, is the foundation for NASUCA's recommendation that the SLC caps should not be increased. These customers are already paying for the economic cost of providing service to them. Increasing the caps in those zones will increase the implicit subsidy provided by residential and single-line customers. The increase in the implicit subsidy occurs when rates increase to recover the allowed CMT revenue per line by any amount that exceeds the economic cost of service.

When the allowed CMT revenue per line is above $5.00, the rate will increase to the lesser of allowed CMT revenue per line or the new cap.[106] However, the allowed CMT revenue is a legacy calculation. It does not even represent the embedded (or sometimes called actual) loop cost.[107] It is the sum of price cap allowed common line revenues plus the remaining Transport Interconnection Charge (TIC) subsidy, and interstate marketing costs.[108] Currently, an implicit subsidy is being paid in zones where the forward-looking cost is below $5.00. If the cap is increased, then in the zones where the forward-looking cost is below $5.00 and the allowed CMT revenues per line is greater than $5.00, implicit subsidy payments will increase. Because it is a goal of the Telecommunications Act of 1996, and of the FCC, to eliminate implicit subsidies as much as possible, we recommend that the FCC find it unreasonable to increase the SLC cap at this time.[109]

These findings also support NASUCA's recommendation that the SLC cap should not increase for any residential or single-line customer. The 80 study areas examined can be divided into four groups. The first group, containing 55 study areas, can be defined as carriers with UNE zones and having at least one zone with an SLC cost of less than $5.00. If the SLC in the zone with a cost greater than $5.00 is allowed to increase without simultaneously decreasing the rate in the zone(s) with a cost less than $5.00, then the FCC would be allowing carriers to garnish funds from residential and single-line business customers through an inefficient rate structure.

[106] 47 C.F.R. Section 69.152(d)(1)

[107] Verizon Cost Submission, Access Charge Reform, CC Docket No. 96-262, filed November 16, 2001, Page 4.

[108] Marketing expenses associated with special access and inter-exchange services are not included in the CMT revenue basket. Section 69.156.

[109] See the Telecommunication Act of 1996, Section 254(e). The word "should" in this section of the act has been interpreted to mean a recommended course of action rather than a mandate, United States Court of Appeals, Tenth Circuit, QWEST v. FCC, No. 99-9546, rel. July 31, 2001.

The second group of carriers, containing 14 study areas, has not established UNE zones. These carriers are thwarting the development of competition by maintaining higher than necessary UNE rates in urban areas. The increase in the SLC cap will provide revenue to decrease multi-line business presubscribed interexchange carrier charges (PICCs). The high PICC, however, provides a rate level that the competitors can match. In doing so, the competitor obtains revenue that partially offsets the high UNE rate. Reducing the PICC in the presence of high UNE rates destroys the profit margin of potential competitors. Given the goal of advancing competition, it is not reasonable to allow these carriers to increase SLC caps, unless and until they de-average their zones. Of course, at that time, they would probably have one zone with SLC costs below $5.00 and thus, it still would not be reasonable to allow this group to increase their SLC caps.

The third group of carriers, containing, seven study areas, have multiple zones and no zone cost below $5.00. These carriers generally serve low-density areas. Moreover, they all receive interstate access support. In addition, their interstate rate of returns for the year 2000 ranged from 12.2 percent to 40.03 percent. While at first blush it might appear reasonable to allow these carriers to increase their SLC caps, it is does not appear to be necessary in light of their service territories, interstate support receipts, and healthy financial positions. The final group of carriers, containing four study areas, has UNE zones that cut across wire centers boundaries. Thus, the model is not able to develop zone costs for these carriers. However, given that zone 1 for these carriers is their most urban region, it is very likely that zone 1 would have forward-looking costs of less than $5.00, and thus, it would not be reasonable to allow the SLC cap to increase rates in the rural zones of these carriers.

Finally, the model results prove that residential and single-line business customers pay more in SLC rates than the SLC cost of service. Far from being a subsidized class, these customers contribute more than their fair share to the support of the carriers' cost and profits. ***In zones where the SLC rate is greater than the SLC cost, residential and single-line business customers provide the carrier with more than $1.113 billion in excess revenue. In zones where the rate is less than cost, SLC revenue is less than cost by approximately $472 million. Combining these two values we conclude that the Subscriber Line Charge paid by residential and single-line business customers generates a net contribution of $641 million (See Section 5.3.3).*** In addition, the combination of $472 million residential and single-line business support requirement with a multi-line business support requirement of approximately $6 million implies that the current interstate access support cap of $650 million is more than sufficient to meet the needs of carriers.

### 5.3 The NASUCA Model Results Demonstrate that Residential and Single-Line Business Customers are Contributing to the Support of the Network, and Do not Receive a Subsidy

We have chosen to present six model runs that highlight the important assumptions that are built into the model and that have been debated by the parties in many proceedings either before the Commission or in state proceedings. First, we review the results of the default run of the model. The default run contains all of the assumptions that the FCC uses to develop the state average and wire center cost of service for the purposes of calculating the forward-looking model universal service support, but for one exception. The one exception being that we have allocated the common costs to all network facilities rather than assign the cost exclusively to the loop.

Second, we correct the model so that the structure that is shared between distribution and feeder networks is not double counted. Currently the Synthesis Model first builds a distribution network and second builds a feeder network. If the feeder and distribution cable follow the same right-of-way, the model will build two sets of poles in the right-of-way, one for the distribution cable, and a second for the feeder cable. In the feeder/distribution structure-sharing scenario, we adjust the model results to eliminate this double counting.

Third, we estimate a scenario that excludes the traffic-sensitive loop plant from the calculation of SLC costs. The feeder portion of the loop is traffic-sensitive in those areas served by fiber fed digital line carrier systems. These facilities are traffic-sensitive because the amount of installed capacity is determined by the peak-hour minutes-of-use. Customers are no longer provided with a dedicated facility or electronic path to the central office.

The last three scenarios change values of inputs that have received a good deal of attention in the discussion of models. In the fourth scenario, we raise the cost of capital to 13.18 percent. In the fifth scenario, we reduce the projected lives of major investment categories, thereby increasing depreciation expenses. In the last scenario, we reduce the maximum copper loop length from 18k ft to 12k ft.[110]

As seen in Table 3 below, the results are not overly sensitive to the choice of scenarios. The NASUCA Model results look at six alternative scenarios. The SLC costs are below $5 for at least 65% of customers in all scenarios, and nearly 2/3 of all customers have SLC costs between $3.50-$5.00. Table 4 also shows that average SLC costs do not vary dramatically across scenarios.

[110] Under Scenarios 4, 5, and 6 only one assumption is changed in each scenario – e.g., Scenarios 5 and 6 do not incorporate the assumption under Scenario 4 that the cost of capital is 13.18%.

**Table 3 -- Percentage Distribution of SLC Costs per Line for Six Scenarios**

| SLC Cost Per Line | Default Scenario | Feeder Distribution Structure Sharing Scenario | Non-Traffic-Sensitive Loop Scenario | Cost of Capital Scenario | Depreciation Scenario | 12k ft Scenario |
|---|---|---|---|---|---|---|
| Less than $3.50 | 9.3 | 11.4 | 16.8 | 1.8 | 8.4 | 8.4 |
| $3.50 to $5.00 | 65.1 | 64.7 | 60.2 | 63.1 | 60.0 | 62.6 |
| $5.00 to $6.00 | 9.1 | 7.9 | 11.0 | 12.1 | 14.3 | 11.9 |
| $6.00 to $6.50 | 3.3 | 4.6 | 2.8 | 6.0 | 1.3 | 1.6 |
| $6.50 to $9.20 | 11.1 | 9.4 | 7.6 | 12.2 | 12.5 | 13.3 |
| $9.20 to $15.00 | 1.9 | 2.0 | 1.6 | 4.2 | 3.0 | 2.0 |
| Above $15.00 | 0.2 | 0.1 | 0.0 | 0.7 | 0.5 | 0.2 |

**Table 4 -- Average SLC Costs and Net Contributions for the Six Scenarios**

| Item | Default Scenario | Feeder Distribution Structure Sharing Scenario | Non-Traffic-Sensitive Loop Scenario | Cost of Capital Scenario | Depreciation Scenario | 12k ft Scenario |
|---|---|---|---|---|---|---|
| Average SLC Cost | $4.75 | $4.64 | $4.40 | $5.28 | $5.00 | $4.89 |
| Net Contribution with a $5.00 SLC | $193 million | $335 million | $641 million | -$478 million | -$121 million | $5 million |
| Net Contribution with a $6.50 SLC | $1,371 million | $1,515 million | $1,813 million | $700 million | $1,057 million | $1,186 million |

### 5.3.1 Default Scenario

The Default Scenario is the basic starting point of our analysis. This scenario incorporates the inputs used by the FCC when it determined year 2001 forward-looking model support. Accordingly, it uses the December 1999 wire center line counts that were filed with the Universal Service Administrator on July 31, 2000. The results files were generated by the Turbo-Pascal version of the model that had been previously posted on the Accounting Policy Division web page.[111] That version of the model also contained 1998 ARMIS information for minutes-of-use and general support facilities

[111] The current version of the Turbo-Pascal model posted on the Accounting Policy Division web-site contains updated ARMIS information. However, this version was not available until after we had started to analyze significant amounts of data and therefore we did not adopt it in this exercise. The web page also contains a Delphi version of the model, which the Commission has not adopted at this time.

investments.[112] FCC-approved inputs values for all inputs contained in the HCPM inputs file and the Hatfield Model Default Scenario are retained.[113]

The average SLC cost is $4.75 per residential and single-line business customer. This amount is below the current SLC cap, and is below the SLC charged by most carriers. The distribution of residential and single-line business customers by SLC is shown below. The lines were divided into groups at SLC cost levels that are relevant for this proceeding. For example, the first group shows the number of lines with cost below the previous SLC cap of $3.50. The second group shows the number of lines with cost between the old cap of $3.50 and the current cap of $5.00. The next two groups show the number of lines between the possible SLC cap increase levels of $6.00 and $6.50. The fifth group measures the number of lines that are between the proposed residential SLC cap of $6.50 and the multi-line business cap of $9.20. The final two groups separate the lines that have costs above the multi-line business cap into those lines with high SLC costs (from $9.20-$15.00 per line), and those with very high SLC costs (above $15 per line).

Table 5 and Figure 1 below highlight the fact that approximately two-thirds of the customers are within the $3.50 to $5.00 band. Another nine percent of customers are in the band below $3.50. Combining these bands means that 74 percent of the customers are located in UNE zones that have an SLC cost of service less than $5.00 per month. Increasing the SLC cap to $6.50 will reduce the support for another 12.4 percent of the customers. However, it will generate a huge windfall from the 74 percent of the residential and single-line customers with costs of less than $5.00. That is, the carriers will receive $1,790 million in implicit subsidies, while high cost areas will need $419 million in support.[114] The difference, $1,371 million, allows carriers to decrease their multi-line business rates by charging exorbitant rates to residential and single-business customers.

[112] The same version of the model will be used for all six scenarios.

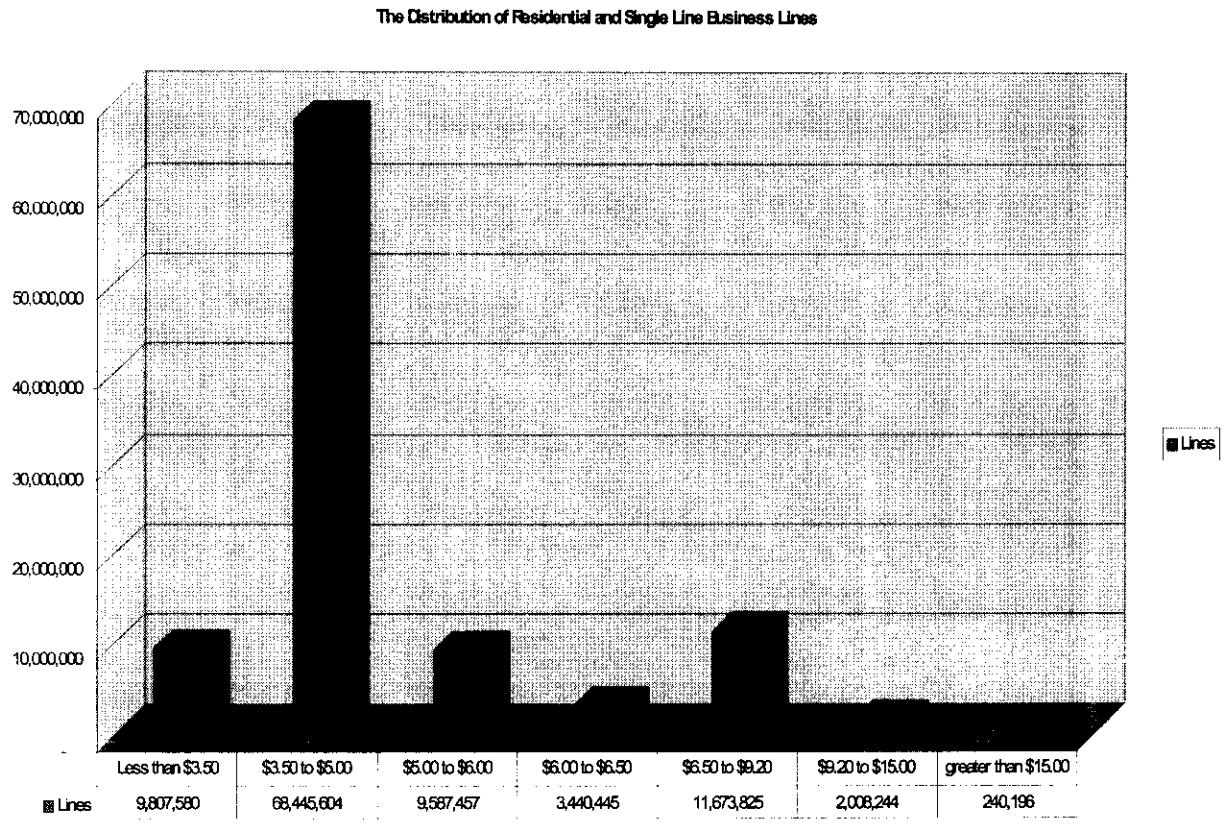
[113] See Inputs Order, Appendices A, B, C, and D.

[114] Implicit subsidies paid by residential and single-line business customers are calculated as the difference between the SLC revenue and the economic cost of service.

**Table 5 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the Default Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 9,807,580 | 9.3 |
| $3.50 to $5.00 | 68,445,604 | 65.1 |
| $5.00 to $6.00 | 9,587,457 | 9.1 |
| $6.00 to $6.50 | 3,440,445 | 3.3 |
| $6.50 to $9.20 | 11,673,825 | 11.1 |
| $9.20 to $15.00 | 2,008,244 | 1.9 |
| Greater than $15.00 | 240,196 | 0.2 |

## Figure 1 – Distribution of Residential and Single-Line Business Lines



The net current contribution received by carriers from residential and single-line business customers is $193 million annually. The contribution is calculated by the summing the contribution generated in each UNE zone. The UNE zone contribution is the difference between the residential and single-line business SLC and the UNE SLC cost.[115] The SLC is assumed to be $5.00 in every zone with the exception of six carriers with SLCs less than $5.00. In those cases, the actual SLC rather than the $5.00 SLC was used.[116] A positive net contribution means that the residential and single-line business customers are providing a net contribution to the carriers. They are not being subsidized, rather they are making a payment that exceeds the economic cost of production. Or stated differently, the Commission's current pricing rules require residential and single-line business customers to provide an implicit subsidy to other services and to the ILECs' profits.

### 5.3.2 Feeder/Distribution Structure Sharing Scenario

The Synthesis Model creates a separate feeder and distribution network. The feeder network is optimally designed given the locations of the serving area interfaces and wire centers. The distribution network is optimally designed given the location of customers. However, the model does not allow the two networks to share structure, where structure includes poles, conduits, and trenches. The existence of the dual networks is acceptable for the purposes of determining universal service support because the support is a function of difference between each carrier's cost and the national average cost. The dual network will increase the cost of each carrier and the national average, and will not necessarily bias a carrier's relative cost position. In that case, the dual network will not affect the amount of support each carrier receives. However, when cost is compared to an absolute level, such as an SLC cap, the dual networks, by raising the cost of service, distort the comparison between the forward-looking cost and the SLC cap. Therefore, in this proceeding, it is necessary to determine a method to remove the dual network from the model cost estimation process.

AT&T pointed out this problem to the Staff of the Common Carrier Bureau in two *ex parte* presentations. First, AT&T demonstrated the problem through a graphical display. Separate feeder and distribution networks were compared to a combined network. In one wire center, AT&T demonstrated that almost all of the feeder cable could ride on the distribution structure.[117] Second, AT&T demonstrated the potential impact of the dual networks by presenting a comparison of the route miles estimated by the Synthesis

[115] Individual zone contributions are listed in the proprietary tables. These tables will be filed in a separate proprietary filing. Appendix C – The Determination of Residential and Single-Line Business Customers Net Contribution and Average SLC Costs. This is proprietary information being provided only to the FCC in six tables -- one table per scenario as described in Section 5.3.

[116] The six carriers are Pacbell at $4.41, Ameritech-Illinois at $4.47, Rochester NY at $4.69, Sprint Nevada at $4.03, Southwestern Bell-OK at $4.72, and Verizon-DC at $3.81 (See Table 1).

[117] Letter from Richard N. Clarke AT&T, to Magalie Roman Salas, FCC dated February 16, 2000

Model for BellSouth Florida with the route miles estimated by BSTLM for the same study area. BSTLM is the model used by BellSouth in various state proceedings. AT&T noted that the Synthesis Model estimate for route miles was 89,771 miles while the BSTLM route mile estimate was 44,851 miles. AT&T also showed that the BSTLM could separate the total distance into the route miles that serve only the distribution network, served only the feeder network and are shared by both networks.[118]

Based on the AT&T *ex parte* presentations we developed an algorithm to share the structure in all study areas. We assigned half of the shared structure to feeder, and half to distribution. Noting that the Synthesis Model would report the shared structure as feeder and distribution structure, we summed the Florida stand-alone distribution route miles with the shared route miles, and the Florida stand-alone feeder route miles with the shared route miles. We calculated the ratio of stand-alone route miles plus ½ of the shared route miles divided by the stand-alone route miles plus the entire shared route miles for both distribution and feeder. These ratios are 93.22% for distribution and 62.8% for feeder.[119] These ratios represent the percentage of reported Synthesis Model route miles that a feeder/distribution structure-sharing model will estimate.

To develop estimates of the SLC cost based on the structure sharing ratios, these ratios were applied to the model results files by multiplying the feeder structure investment by the feeder ratio and the distribution structure investment by the distribution ratio. The model recalculates the wire center costs using the lower levels of investment, and the new wire center costs are transformed into SLC costs using the methodology for generating SLC costs described above.

The average SLC cost is $4.64 per residential and single-line business customer. This average is 2.3 percent less than the average in the Default Scenario. In general, the distribution of lines slides into lower brackets in comparison to the Default Scenario. A total of 76 percent of the lines have forward-looking SLC costs that are less than $5.00. Another 13 percent of the lines have SLC costs of between $5.00 and $6.50, and only 11 percent of the lines have SLC costs greater than $6.50. Raising the cap generates significantly more implicit subsidies than it reduces in support requirements. The implicit subsidies increase to $1,881 million, while the support becomes $366 million, yielding net implicit subsidies of $1,515 million. Net contribution from residential and single-line business customers, calculated using the $5.00 SLC cap, is $335 million.

[118] Letter from Michael R. Lieberman AT&T, to Magalie Roman Salas, FCC dated October 4, 2000

[119] For BellSouth Florida, stand-alone distribution route miles were reported as 37,048 miles, stand-alone feeder route miles were 2,000 miles and shared miles were 5,802 miles. The distribution ratio is 39,949 divided by 42,850 and the feeder ratio is 4,901 divided by 7,802. See Letter from Michael R. Lieberman AT&T, to Magalie Roman Salas, FCC, dated October 4, 2000.

**Table 6 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the Feeder/Distribution Structure Sharing Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 11,953,483 | 11.4 |
| $3.50 to $5.00 | 68,016,956 | 64.7 |
| $5.00 to $6.00 | 8,299,807 | 7.9 |
| $6.00 to $6.50 | 4,822,781 | 4.6 |
| $6.50 to $9.20 | 9,861,884 | 9.4 |
| $9.20 to $15.00 | 2,096,954 | 2.0 |
| Greater than $15.00 | 151,486 | 0.1 |

### 5.3.3 Non-Traffic-Sensitive Loop Scenario

The Non-Traffic-Sensitive Scenario calculates the costs that should be used to determine if an increase to the SLC cap is warranted. It calculates the costs that are dedicated to the end-user and do not vary with usage. This scenario is based on a reasonable starting position, the Feeder/Distribution Structure Sharing Scenario. The Non-Traffic-Sensitive Loop Scenario removes the traffic-sensitive components of the loop and estimates the cost of the remaining non-traffic-sensitive components. Traditionally, the entire loop had been considered non-traffic-sensitive. Each end-user was connected to the wire center by a dedicated twisted copper pair of wires. Even when T-carrier systems were introduced, the end-user had either a dedicated pair or a dedicated channel on the T-carrier system.

Thus, all of the facilities and equipment providing the loop service to the customer were dedicated to that customer. Neither the end-user's traffic pattern or his neighbors' traffic patterns determined the amount of loop services available to him. However, with the addition of loop electronics via digital loop carriers, the loop now contains traffic-sensitive components. These facilities are shared by many end-users. Each end-user is not provided with a dedicated path. Rather, the traffic is concentrated. "Typically, residential service can be concentrated at a 4:1 ratio...for business services the typical traffic concentration ratio is 3:1. The actual concentration ratio chosen for a given application is a function of the traffic load to be carried by the NGDLC (next generation digital loop carrier)."[120] That is, the facilities that provide paths between the switch and digital loop carrier device (the parts of the digital loop carrier device that communicate with the switch and the switch port) are part of a traffic-sensitive network. An end-user can experience blocking at the digital loop carrier because traffic from other end-users precluded his use of the loop facility. Moreover, this network does not provide all end-users with equal access to the switch. Instead, it provides business customers with more paths than residential customers.

[120] Direct Testimony of W. Keith Milner, BellSouth Telecommunications, Inc. Before the Alabama Public Service Commission, Docket No. 27821, November 8, 2000, at 6.

This network design has two important consequences. First, the costs associated with the traffic-sensitive portion of the loop should not be recovered through SLCs. As the Commission has often said "The Commission has long recognized that to the extent possible, interstate access costs should be recovered in the manner in which they are incurred. In particular, non-traffic-sensitive costs -- costs that do not vary with the amount of traffic carried over the facilities -- should be recovered through fixed flat charges, and traffic-sensitive cost should be recovered through per minute charges."[121]

Accordingly, the cost associated with the traffic-sensitive components of the loop should be recovered through a per-minute charge. The SLC, a flat-rated charge, should recover the dedicated portion of the loop. When a digital loop carrier serves a customer, the non-traffic-sensitive components of the loop include the network interface device, the drop wire, the distribution cable, the serving area interface, and the line card at the digital loop carrier device. The digital loop carrier's common equipment (the cabinet, power and environment equipment) should be allocated between the traffic-sensitive and non-traffic-sensitive services. The feeder and transmission portion of the digital loop carrier are the traffic-sensitive components of the loop.

Recently, the Commission has entertained the notion that many traffic-sensitive facilities are more sensitive to peak usage than to flat diurnal or monthly usage.[122] NASUCA argues that for peak capacity constrained facilities, peak period pricing mechanisms are preferred and required by the Act. If because of administrative difficulties with peak period pricing, such as peak shifting or the inability to determine the coincident peak, peak pricing cannot be implemented, then the Commission should use a per-minute charge to recover these costs. The facilities are still traffic-sensitive even if they are sensitive to peak usage. In such instances, it is inefficient to recover the cost of these facilities through a flat rate charge. In addition, the costs associated with these facilities should be recovered from their cost-causers, and not transferred to the Universal Service Fund. Transferring the recovery to the Universal Service Fund would result in increases to the alternative SLC, the universal service contribution. The universal service contribution is an alternative SLC because price cap carriers recover their universal service on a flat-rated basis. Thus, transferring the cost to the Universal Service Fund will also require the recovery of a traffic-sensitive cost on an inefficient flat-rated basis.

The second consequence is that business customers are provided a higher quality of service than residential customers. This quality difference supports the retention of a higher SLC for multi-line business customers.

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[121] In the Matter of the Multi-Association Group (MAG) Plan for Regulation of Interstate Services for Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers, Second Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 00-256, released November 8, 2001, FCC 01-304, Paragraph 17; 12 FCC Rcd at 15992-93 Paragraph 24.

[122] In the Matter of Developing a Unified Intercarrier Compensation Regime, CC Docket No. 01-92, Notice of Proposed Rulemaking, rel. April 27, 2001, Paragraphs 109-111.

A Commission decision to recover feeder and digital loop carrier costs on a traffic-sensitive basis would be consistent with the forward-looking costing practices already implemented in the United Kingdom and Germany. In those countries, traffic-sensitive costs are called the conveyance costs, and non-traffic-sensitive costs are called access costs.[123] In both countries, the feeder that connects the digital loop carrier and transmission portion of the digital loop carrier are recovered as part of the interconnection tariff associated with conveyance costs.

To run the Non-Traffic-Sensitive Scenario, the traffic-sensitive portions of the loop have to be removed from the computation. With regard to feeder plant, because the model uses fiber feeder solely for the purpose of connecting digital loop carrier devices to wire centers, removing the traffic-sensitive loop components requires eliminating all fiber feeder cable and associated structure costs.

In the case of digital loop carriers, it is necessary to determine the transmission portion of the cost of these facilities. The model does not directly provide an investment cost related to the transmission portion of the digital loop carriers. Instead, the model combines a fixed cost and a per-line cost to determine the total cost of the digital loop carrier. The fixed cost includes both the transmission costs and the common costs of the carrier. In addition, the relative amount of fixed and per-line costs varies with the size of the digital loop carrier and its utilization. Estimates based on a sample of 1000 digital loop carriers reveal that 68% of the carrier cost is fixed, and 32% of the cost is per-line related. For purposes of determining SLC costs, we assumed that 30 percent of the total cost (less than half of the fixed cost) of the digital loop carrier is traffic-sensitive.

To implement these assumptions, the Synthesis Model result files from the Feeder/Distribution Structure Sharing Scenario were recomputed with the fiber, cable, and structure investments set at zero, and digital loop carrier investment reduced by 30 percent. The model generates the recomputed wire center costs. These costs are then transformed into SLC costs following the procedures outlined above.

Under this scenario, the average SLC cost is $4.40 per residential and single-line business customer. Seventy-seven percent of residential and single-line customer are located in UNE zones that have SLC costs of less than $5.00. At the $5.00 cap, end-users with SLC costs below $5.00 are already providing carriers with an implicit subsidy of $1.113 billion. End-users with SLC costs above $5.00 are receiving $472 million in support. The support received can be implicit from other ratepayers or explicit from the interstate access support mechanism. Increasing the SLC cap to $6.50 will increase implicit subsidies $2,065 million, which will be provided by residential and single-line business customers. This amount will come from end-users in zones where the forward-looking cost is less than the allowed CMT revenue per line.

[123] Analytical Cost Model: National Core Network, **Consultative Document 2.0**, Prepared by Wissenschaftliches Institut für Kommunikationsdienste, GmbH (WIK) for the Regulatory Authority for Telecommunications and Posts, June 30, 2000; Long Run Incremental Costs: The Bottom-Up Network Model, OFTEL, March 1997, Version 2.2, at 2).

At the same time, support for end-users with SLC costs above $5.00 will decrease $252 million. Clearly, a program of increasing the SLC cap that dramatically increases the level of implicit subsidies is inconsistent with the Telecommunications Act's mandate to implement universal service such that "such support should be explicit."[124] In addition, it contradicts the Commission's policy that "interstate access costs should be recovered in the manner in which they are incurred."[125] An SLC cap of $6.00 will place 80 million customers at risk of paying a rate that is greater than the cost incurred in providing service. If the cap is increased to $6.50, an additional 11.5 million end-users will face this risk.

**Table 7 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the Non-Traffic-Sensitive Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 17,629,860 | 16.8% |
| $3.50 to $5.00 | 63,371,922 | 60.2% |
| $5.00 to $6.00 | 11,564,772 | 11.0% |
| $6.00 to $6.50 | 2,914,251 | 2.8% |
| $6.50 to $9.20 | 8,033,008 | 7.6% |
| $9.20 to $15.00 | 1,646,788 | 1.6% |
| Greater than $15.00 | 42,750 | 0.0% |

### 5.3.4 Cost of Capital Scenario

In the three previous scenarios, the cost of capital was set at 11.25 percent, the current authorized rate-of-return. This is the value that was approved by the Commission for the purpose of determining universal service support. The Commission left open the door that this rate could change if the Commission was to adopt a different rate of return in its prescription proceeding.[126] The Commission has recently terminated the prescription proceeding without changing the rate of return.[127] In their cost filings, several carriers adopted the 11.25 percent return for the purposes of determining SLC costs.[128] Verizon, however, uses a rate of return that could be higher than the 11.25% return.

[124] Telecommunications Act of 1996, Section 254 (e).

[125] Mag Order, Paragraph 17.

[126] Inputs Order, Paragraphs 432, 435.

[127] Mag Order, Paragraph 208.

[128] SBC cost submission, Page 5; BellSouth cost submission, Page 4.

The purpose of this scenario is to provide the Commission with evidence that estimates the potential impact of using a higher rate of return to determine SLC costs. NASUCA does not support the use of the higher rate of return. We are only providing this information to illustrate the impact of using a value greater than 11.25%, as Verizon has likely done.

In the model, the rate of return transforms the investments into annual payments. It is analogous to the interest rate in a mortgage payment. In the mortgage payment, the interest rate transforms the investment, the price paid for the house, into a monthly payment. A higher cost of capital will increase the SLC cost just as a higher interest rate will increase the mortgage payment.

In particular, we have substituted from a Verizon-Maine UNE study the company's proposed cost of equity, cost of debt, and debt fraction. The Maine cost of equity was 14.91 percent, the cost of debt was 7.63 percent, and the debt fraction was 23.77 percent.[129] These values translate into a cost of capital of 13.18 percent. The model recomputed the wire center costs using this higher cost of capital and the wire center costs were transformed into SLC costs.

The average SLC cost is $5.28 per residential and single-line business customer. Sixty-four percent of residential and single-line customers are located in UNE zones that have SLC costs of less than $5.00. At the $5.00 cap, the net contribution from residential and single-line business end-users is -$478 million. Therefore, it appears that these end-users receive a net subsidy flow. However, increasing the SLC cap will reverse the subsidy flow causing the residential and single-line business customers to subsidize other customers. However when the SLC cap increases to $6.50, the net contribution is $700m. The reason for the turnaround in the subsidy is because there are still 68 million end-users, sixty-four percent of the total residential and single-line business customers, who are located in UNE zones that have costs below $5.00. These customers will be required to provide implicit subsidies to other customers and the ILECs if the cap is increased.

**Table 8 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the Cost of Capital Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 1,842,173 | 1.8% |
| $3.50 to $5.00 | 66,361,987 | 63.1% |
| $5.00 to $6.00 | 12,742,439 | 12.1% |
| $6.00 to $6.50 | 6,279,901 | 6.0% |
| $6.50 to $9.20 | 12,813,183 | 12.2% |
| $9.20 to $15.00 | 4,448,045 | 4.2% |
| Greater than $15.00 | 715,623 | 0.7% |

[129] Stanley Baker, Testimony on behalf of Verizon-Maine, Attachment E, Maine Docket no. 96-781.

### 5.3.5 Depreciation Scenario

The purpose of calculating the Depreciation Scenario is to estimate the impact of alternative depreciation expense rates. These rates are determined by the economic life and future net salvage percentage assigned to each investment category. Longer lives and higher salvage values decrease the depreciation expense rate. The model multiplies the investment times the depreciation expense rate to determine annual depreciation expenses.

The economic lives and future net salvage percentages contained in the Default Scenario are the weighted average Commission authorized lives and percentages. In adopting these lives for use in the Universal Service proceeding, the Commission noted that these

> "depreciation lives are not only estimates of the physical lives of assets, but also reflect the impact of technological obsolescence and forecasts of equipment replacement. We believe that this process of combining statistical analysis of historical information with forecasts of equipment replacement generates forward-looking projected lives that are reasonable estimates of economic lives and, therefore, are appropriate measures of depreciation."[130]

The Commission also noted that the increase in the depreciation reserve-ratio, due to the fact that average prescribed depreciation is approximately 7 percent when retirements are approximately 4 percent, implies the prescribed lives are shorter than engineered lives of these assets.[131]

In a recent study, the Commission staff found that actual depreciation reserves are greater than the theoretical reserves. The actual reserves were 53 percent of the plant cost, and the theoretical reserves were 49% of plant cost. This relationship, actual reserves being greater than theoretical reserves, existed for all major carriers.[132] In such instances, the authorized rates have been more than adequate in allowing the carriers to depreciate their plant.

Even though the Commission has found the authorized depreciation lives to be forward-looking and its staff reports show the depreciation reserves are more than adequate, carriers continue to advocate for even shorter lives.[133] In this scenario,[134] we

[130] Inputs Order, Paragraph 426.

[131] Id., Paragraph 427

[132] Accounting Safeguards Division, Common Carrier Bureau, Report on Depreciation Reserve Analysis for 2001, September 2001.

implemented the economic lives and future net salvage percentages proposed by Verizon-Maine.[135] We insert them into the Hatfield Model module of the Synthesis Model and compute the wire center cost. Finally the wire center cost is transformed into an SLC cost.

The average SLC cost is $5.00 per residential and single-line business customer. Sixty-eight percent of residential and single-line customer are located in UNE zones that have SLC costs of less than $5.00. The largest group of end-users is in the $3.50 to $5.00 range. There are 63 million lines in this range, representing 60% of all residential and single-line business lines. Increasing the SLC cap generates a net subsidy of $1,057 million from residential and single-line business customers.

**Table 9 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the Depreciation Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 8,851,423 | 8.4% |
| $3.50 to $5.00 | 63,156,985 | 60.0% |
| $5.00 to $6.00 | 14,993,885 | 14.3% |
| $6.00 to $6.50 | 1,400,340 | 1.3% |
| $6.50 to $9.20 | 13,177,470 | 12.5% |
| $9.20 to $15.00 | 3,129,431 | 3.0% |
| Greater than $15.00 | 493,817 | 0.5% |

### 5.3.6 12k ft Scenario

The quality of voice service is determined, in part, by the characteristics of the copper loop. Two important characteristics of the loop that affect loop quality are the loop length, and the width or gauge of the loop. For any gauge, resistance and decibel loss increase with increases in the length of the copper loop; and for any length, resistance and decibel loss increase with decreases in the diameter of the copper (increases in the gauge).

In the Universal Service proceeding, there was an extensive discussion regarding loop quality and how decisions about quality affect the design of the network. Parties debated whether the Commission should adopt a maximum loop length of 12 thousand feet (12k ft) or 18 thousand feet (18k ft).[136] The Commission adopted the 18k ft

[133] See Maine Docket No. 96-781, Alabama Docket No.27821, and Florida Docket No. 990649-TP.

[134] NASUCA does not support the use of the reduced service lives. We are only providing this information to illustrate the impact of using higher depreciation rates.

[135] Verizon Testimony, Attachment E.

[136] See the Inputs Order, Paragraphs 67-70.

standard. It stated that "the record supports the finding that a platform that uses 18,000 foot loop-lengths will support at appropriate quality levels the services eligible for universal service support."[137] The service quality adopted for universal service is voice grade service, where bandwidth for voice grade service should be at a minimum, 300 to 3000 Hertz.[138] The use of the 18k ft standard is consistent with the costing procedures established for this proceeding: "For this proceeding, the price cap [local exchange carriers (LECs)] have agreed to provide...forward-looking cost information associated with the provision of retail voice grade access to the public switched telephone network."[139]

The incremental cost models submitted by the carriers in this proceeding reverted back to the 12k ft standard.[140] This standard was first developed as part of the Carrier Serving Area (CSA) design.[141] The boundaries of the CSA are based on resistance limits of 900 ohms for the distribution plant beyond the remote terminal. These limits equate to 9,000 feet of 26-gauge cable and 12,000 feet of 19, 22, or 24-gauge cable including bridged taps.[142] The CSA design was developed to provide digital data services such as computer to computer communications, high-speed facsimile, information storage, and retrieval from remote databases; not voice grade services.[143]

Even though we recommend that the Commission retain the18k ft standard because that standard meets the requirement of providing voice grade service, we are providing results from a 12k ft model run. To perform this run, it was necessary to re-cluster all of the PNR customer data in clusters that are limited to distances of less than 12k ft. In addition, the maximum copper length input was set at 12k ft in the HCPM user input file. After making these adjustments, the model was run for all 80 price-cap non-rural carriers. The wire center costs were then transformed into SLC costs.

The average SLC cost is $4.89 per residential and single-line business customer. Finally, as in all other cases, the potential increase in implicit subsidies associated with an increase in the SLC cap is significantly greater than the potential reduction in support payments to end-users now protected by the cap. An increase in the in the cap to $6.50

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[137] Id., Paragraph 70.

[138] In the Matter of the Federal-State Joint Board on Universal Service. Fourth Order on Reconsideration, CC Docket No. 96-45, rel. December 30, 1997, Paragraph 16.

[139] See CALLS Order, 15 FCC Rcd at 12994, Paragraph 83.

[140] SBC cost submission, Attachment A, Page 15. Also, whenever a carrier relies on its own engineering guidelines, it implies the use of 12 k ft standard embedded in the Carrier Serving Area Design. BellSouth cost submission, Page 2.

[141] A more extensive discussion of the CSA standard can be found at Section 8.

[142] Lucent Technologies, Outside Plant Systems, October 1996, Page 13-1.

[143] T.P. Byrne et. al., "Positioning the Subscriber Loop Network for Digital Services," The International Symposium on Subscriber Loops and Services Proceedings, September 20-24, 1982.

will generate a net contribution of $1,186 million from residential and single-line business customers.

**Table 10 -- Distribution of Residential and Single-Line Business Lines by SLC Cost for the 12k ft Scenario**

| SLC Cost Per Line | Number of Lines | Percentage Share |
|---|---|---|
| Less than $3.50 | 8,851,423 | 8.4% |
| $3.50 to $5.00 | 65,876,022 | 62.6% |
| $5.00 to $6.00 | 12,499,055 | 11.9% |
| $6.00 to $6.50 | 1,685,016 | 1.6% |
| $6.50 to $9.20 | 13,952,428 | 13.3% |
| $9.20 to $15.00 | 2,099,211 | 2.0% |
| Greater than $15.00 | 240,196 | 0.2% |

## 6 Shared Costs: The Commission's Cost Allocation Rules do not Properly Assign Costs between Services Included and Excluded from the Definition of Universal Service

The six scenarios provided above illustrate that there is no economic basis for raising the Subscriber Line Charge. Residential and single-line customers are already paying an SLC that exceeds the economic cost of production. A further increase in the SLC would only exacerbate the level of implicit subsidy provided by these customers.

The level of implicit subsidy identified in the scenarios is understated because of the Commission's current accounting rules. In this section, we address how the Commission's rules fail to provide the accounting safeguards that Congress ordered the Commission to establish in §254(K) of the Act. Costs are currently misallocated to residential and single-line business subscribers; consequently those subscribers are being compelled to subsidize non-supported services.

Over five years ago, the 1996 Telecommunications Act removed many of the restrictions barring LECs from offering competitive and non-traditional telecommunications services. The FCC said at that point that "virtually all incumbent local exchange carriers' outside plant is dedicated and assigned to regulated activities by direct assignment,"[144] the FCC recognized that it had to address "how to allocate common costs between the non-regulated offerings that will be introduced by incumbent local exchange carriers and the regulated services they already offer (because) our current cost allocation rules were not designed for this task."[145]

[144] Notice of Proposed Rulemaking, In The Matter Of Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, CC Docket No. 96-112 FCC No. 96-214, Adopted May 10, 1996; Released: May 10, 1996. ("Video Notice") at ¶18

[145] Id., at ¶2.

Furthermore, the FCC was quick to point out that the local loop presented the greatest problem:

> "For the non-regulated offerings contemplated in this proceeding, loop plant presents the greatest problem. Direct assignment is generally not available because loops capable of providing both regulated and non-regulated services generate common costs. Because loop plant is primarily traffic insensitive, the usage-based allocation process prescribed by our Part 64 rules does not result in cost-causative allocations."[146]

It is clear from the FCC's words that its cost allocation rules are now antiquated, fail to reflect the way in which telecommunications plant is utilized, and do not "ensure that telephone subscribers are not forced to pay for the non-regulated offerings of the incumbent local exchange carriers."[147]

Therefore, it would be irresponsible for the FCC to go forward with the scheduled increase to the SLC cap based upon its current cost allocation rules and the evidence presented in this proceeding.

### 6.1 The FCC has Recognized in the Past that its Cost Allocation Rules are not Well-Suited for Allocating Joint and Common Costs Among Regulated and Non-Regulated Services

In 1996, the FCC correctly recognized that its cost allocation rules did not properly allocate common costs between regulated and non-regulated services offered over shared facilities.[148] The FCC noted that loop presented the greatest allocation problem because loop facilities generate significant common costs that are primarily traffic insensitive, and therefore, "the usage-based allocation process prescribed by our Part 64 rules does not result in cost-causative allocations."[149]

More than five years after the fact, this problem still exists. The cost studies filed by CALLS members in this proceeding allocate 100% of loop costs to voice services even though this common facility is currently shared among voice and data services, and prospectively with video programming. In light of the shortcomings of the Commission's accounting procedures, the Commission must recognize that the loop cost estimates

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[146] Id., at ¶ 19.

[147] Id., at ¶ 22.

[148] Notice of Proposed Rulemaking In The Matter Of Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, CC Docket No. 96-112 FCC No. 96-214, Adopted May 10, 1996; Released: May 10, 1996. ("Video Notice").

[149] Video Notice at ¶ 19.

generated by HCPM are biased upward for the purposes of establishing the allocated cost of voice access.

### 6.2 Basic Exchange Service Should not be Used to Cross-Subsidize Deregulated and Non-supported Services such as Data Services Since this Violates the Telecommunications Act of 1996

It is illegal to recover the full cost of the loop allocated to the interstate jurisdiction through a Subscriber Line Charge. Currently the SLC is bundled with the price of basic exchange service, a product that is not competitive.[150] Section 254(k) of the 96 Act endorsed the Commission's long-standing policy that non-competitive services should not be used to subsidize competitive products or non-supported services. In this section we show that the CALLS allocation of 100% of the cost of the loop to the SLC not only violates Commission policy, but also that the Commission's current accounting safeguards, as recognized by the FCC, do not provide protection to the captive ratepayers.

Section 254(k) explicitly states that carriers

> "...may not use services that are not competitive to subsidize services that are subject to competition." And that the Commission, "...with respect to interstate services... shall establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services."

This "reasonable share" requirement of Section 254(k) codifies the long-standing telecommunications doctrine that, when the same network supports several classes of service, one class of service must not bear the full cost of administering and maintaining the network. While in the past this doctrine has been applied more to allocation of costs between intrastate and interstate telecommunications services, it applies equally well to services, such as data, video, and other advanced services. Concerning these services, the FCC has relied on a series of accounting safeguards to protect against any cross-subsidization of non-regulated services by regulated services.

### 6.3 The FCC's Approach to Video Dialtone Service Properly Guarded against Cross-Subsidization of Competitive Services by Non-Competitive Ones, and the Same Principles Should be Applied to the Provision of Advanced Data Services

The FCC's position to ensure proper safeguards against cross-subsidization of competitive services by non-competitive ones was most clearly articulated during its various deliberations concerning the provision of video dialtone. The treatment of video

[150] In all jurisdictions in the country, local service can be disconnected if the SLC is not paid.

dialtone provides an interesting parallel that is useful for guiding the FCC in today's modernization efforts for providing advanced data services.

In the early 1990s, telephone companies envisioned reconstructing their networks so that they could provide video, voice, and data services. The telephone companies made some significant progress in their effort to provide video services, as illustrated by SNET's construction of a hybrid fiber-coaxial network. Today, the telephone companies are focused on upgrading their networks to provide data and voice together, and in the not too distant future, video.

From the beginning the FCC clearly conceived of video dialtone as a means of facilitating the provision of additional non-programming services involving voice, video, and data, and recognized that the "joint provision of these services, enhanced competition and diversity of services, and incentives to improve the network infrastructure were in the public interest."[151]

The FCC was and is therefore confronted with the need to address the recovery of direct and joint costs associated with providing Plain Old Telephone Service (POTS) and non-POTS on the same platform. When the telephone companies built their video platforms, the FCC addressed the issue of how to allocate costs between voice and video. The FCC also recognized that safeguards were necessary to ensure that, among other things, there was no cross-subsidization of video dialtone services by basic exchange customers and put into place safeguards requiring "...a separate accounting of costs so that shareholders and not ratepayers would bear the burden of failure."[152]

### 6.4 Based on the Experience of Video Dialtone Service, Careful and Consistent Application of Accounting Rules and Principles Should Ensure that Cross-Subsidies Do not Occur

The Commission applied cost allocation and separate accounting rules to price cap regulated companies because the price caps by themselves did not provide adequate protection to POTS. The FCC concluded in its Video Dialtone Reconsideration Order that "...the basic video dialtone offerings of LECs would be subject to the existing price

[151] Second Report And Order, Recommendation To Congress, And Second Further Notice Of Proposed Rulemaking, In The Matter Of Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54 - 63.58, CC Docket No. 87-266, FCC 92-327, Released August 14, 1992, Adopted July 16, 1992, at ¶25. (Footnotes excluded)

[152] Order And Authorization, In the Matter of the Applications of Ameritech Operating Companies For Authority pursuant to Section 214 of the Communications Act of 1934, as Amended, to Construct, Operate, Own, and Maintain Advanced Fiber Optic Facilities and Equipment to Provide Video Dialtone service within Geographically Defined Areas in Illinois, Indiana, Michigan, Ohio, and Wisconsin, FCC 94-340, Adopted December 23, 1994, Released January 4, 1995, at ¶40.

cap rules".[153] In reaching this conclusion, the FCC decided that video dialtone constituted a new service under the price cap rules because it adds to the range of options available to customers. Consistent with the Commission's new services rules, LECs were obligated to "...craft their video dialtone rates to cover the 'direct costs' associated with providing the service."[154]

The accounting system for video dialtone service had to identify shared costs, suggesting that the Commission intended to address how shared costs should be allocated between video and voice. By establishing a system of accounts that identify shared costs, the Commission implicitly recognized that it was unacceptable to have video pay only its direct costs. As we will show below, the Commission subsequently proposed an explicit sharing of shared costs, and imposed the following conditions on Ameritech in granting its request to provide video dialtone service:

> "We require Ameritech to account for all costs associated with its video dialtone service in accordance with Part 32. In order to ensure that these costs are not borne by ratepayers of regulated services, and consistent with the requirements established in the VDT Recon Order, we condition this authorization on a requirement that Ameritech segregate all costs incurred in providing video dialtone service into two sets of subsidiary accounting records. We require Ameritech to create a set of subsidiary accounting records that identify all revenues, investment, and expenses wholly dedicated to video dialtone, and another set of records that capture any revenues, investment, and expenses that are shared between video dialtone and the provision of other services. These subsidiary accounting records shall include the direct costs and overheads associated with video dialtone service. To ensure that these costs are not borne by ratepayers of other regulated services, we require Ameritech to segregate all costs incurred in providing video dialtone service into subsidiary accounting records and to assign these costs to the video dialtone service. Consistent with the requirements of the VDT Recon Order, if these costs are not recovered from future video dialtone services, they must be borne by shareholders rather than the ratepayers of other regulated services."[155]

[153] Second Report And Order And Third Further Notice Of Proposed Rulemaking, In the Matter of Price Cap Performance Review for Local Exchange Carriers; Treatment of Video Dialtone Services Under Price Cap Regulation, CC Docket No. 94-1, FCC 95-394, Adopted: September 14, 1995, Released: September 21, 1995, at ¶4.

[154] Id.

[155] Id., at ¶57.

## 6.5 The Commission was Consistent Throughout the Development of its Policy on Video Dialtone Service that Joint and Common Costs Should be Shared Among the Services Provided, and that Regulated Services should not Subsidize Unregulated Ones

On November 7, 1994, the Commission issued the Video Dialtone Reconsideration Order ("VDT Recon Order"). In that Order, the Commission set forth accounting and reporting requirements for LECs that offer video dialtone service, and these requirements were reaffirmed in the basic video dialtone framework adopted in the Second Report and Order in 1995. The Commission required carriers offering video dialtone to establish two sets of subsidiary accounting records: one to capture the investment, expense, and revenue wholly dedicated to video dialtone; the other to capture the investment, expense, and revenue shared between video dialtone and other services.[156] Wholly dedicated refers to investment, expense, and revenue related exclusively to providing video dialtone service, while shared refers to investment, expense, and revenue related to providing video dialtone and other services on a joint or common basis.[157]

This Order went on to specify that "...direct costs include costs associated with the primary plant investment that is used to provide the service." [158] And acknowledged "...the direct costs of video dialtone will include incremental costs that are associated with shared plant used to provide video dialtone and other services."[159] Because of this the Commission stated that it expected

> "...LECs to include as part of direct costs, a reasonable allocation of other costs that are associated with shared plant used to provide video dialtone and other services; and costs in accounts other than primary plant accounts that are reasonably identifiable as incremental costs of video dialtone service"[160] as well "... a reasonable allocation of overheads."[161]

On April 3, 1995, the FCC released RAO Letter 25 -- Accounting and Reporting Requirements for Video Dialtone Service. This letter provided guidance on video dialtone accounting to local exchange carriers ("LECs") that had received Section 214 authorizations to provide video dialtone service. It also set forth specific guidance on

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[156] Federal Communications Commission, Video Dialtone Reconsideration Order, November 7, 1994, at Paragraph 173.

[157] By "other services" we mean telephone and other services provided by LECs.

[158] Second Order, at Footnote No. 8 (Referencing Video Dialtone Reconsideration Order, 10 FCC Rcd at 345-346).

[159] Id.

[160] Id.

[161] Id.

the requirements for accounting classifications, subsidiary records, and amendments to cost allocation manuals ("CAMs") for LECs that provide video dialtone service.

The letter required "...LECs to maintain in subsidiary records, by USOA accounts, all wholly dedicated and shared investment, expense, and revenue related to providing video dialtone service".[162] The letter went on to find that "...LECs must separately track both wholly dedicated and shared video dialtone investment. This requirement covers both new investment purchased for the provision of video dialtone and existing plant converted to video dialtone use."

Moreover, it merits emphasis that the rules applied to both new and existing investments, reflecting the fact that the FCC did not assume that because the investment already existed, it was fair to recover 100% of its cost from POTS. Rather it concluded that once the equipment was shared, regardless of the date of installation, the costs should be split between video and voice services.

To track net investment, subsidiary records must identify, for each plant account, all accumulated depreciation, amortization and deferred income taxes associated with wholly dedicated and shared video dialtone investment."[163] The FCC also required separate subsidiary records for dedicated and shared video dialtone expenses. Carriers also had to separately identify depreciation and amortization expense associated with wholly dedicated and shared video dialtone investment by each Part 32 plant account.[164]

LECs were also required to revise their Cost Allocation Manuals to:

> "...include a statement indicating whether non-regulated video dialtone service is provided through a stand-alone video dialtone system, or a system shared with telephony. Carriers must also establish a new subsection in Section II of their CAMs that identifies all costs incurred in the planning and development of non-regulated activities provided in conjunction with video dialtone service."[165]

The Chief of the Common Carrier Bureau later issued a Memorandum Opinion and Order adopting the reporting requirements and accounting guidelines contained in RAO Letter 25.[166]

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[162] RAO Letter 25, Re: Accounting and Reporting Requirements for Video Dialtone Service, Federal Communications Commission, DA 95-7, Adopted: March 31, 1995, Released April 3, 1995, at 3.

[163] Id., at 4.

[164] Id.

[165] Id., at 6.

[166] Memorandum Opinion and Order, By the Chief of the Common Carrier Bureau, Before the Federal Communications Commission, In the Matter of Reporting Requirements on Video Dialtone Costs and

The FCC eventually revoked both: "(1) the Common Carrier Bureau's Memorandum Opinion and Order adopting subsidiary accounting and reporting requirements for video dialtone; and (2) Responsible Accounting Officer Letter 25 ("RAO Letter 25")..."[167] as a result of the implementation of Section 302 of the Telecommunications Act of 1996. However, in that same Order the FCC also sought comments on "...on what steps local exchange carriers should be required to take prior to certification with respect to establishing cost allocation procedures between regulated and unregulated services under Part 64 of the Commission's rules."[168]

### 6.6 The Commission Should Determine A Fixed Factor for Allocating Joint and Common Costs Among Services Provided by the Loop Since the Practice of Apportioning 100% of the Costs on Interstate Loop Recovery to the Subscriber Line Charge under the CALLS Order is Inconsistent with the Commission's Experience in Allocation of Joint Costs for Video Dialtone

The FCC should follow up on its consideration of a fixed allocation factor that would split the cost of loop plant equally between regulated and non-regulated activities. The FCC supported the concept of a fixed factor because it "has the advantage of simplicity, and would eliminate the need for usage projections and measurements as well as subsequent reallocations to adjust for inaccurate projections."[169] The FCC also found that a fixed allocation would ensure just and reasonable rates[170] that do not result in the cross subsidization of competitive services by services that are not subject to competition.[171]

Because the FCC also felt that a cost causative allocation was not likely to achieve a reasonable degree of accuracy for jointly used facilities it was determined that the allocation should "...be based on other considerations such as demand or public policy considerations."[172]

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Jurisdictional Separations for Local Exchange Carriers Offering Video Dialtone Services, DA 95-2036 and AAD No. 95-59, Adopted: September 29, 1995; Released: September 29, 1995, at¶7.

[167] Report And Order And Notice Of Proposed Rulemaking, In the Matter of Implementation of Section 302 of the Telecommunications Act of 1996, Open Video Systems, and Telephone Company-Cable Television Cross-Ownership Rules, Sections 63.54-63.58, CS Docket No. 96-46 and CC Docket No. 87-266 (Terminated), FCC 96-99, Adopted: March 11, 1996; Released: March 11, 1996, at ¶75.

[168] Id., at ¶70.

[169] Video Notice at ¶39.

[170] Id., at ¶22.

[171] Id.

[172] Id., at ¶41.

In their comments on this issue the ILECs' suggestions as to the appropriate fixed factor for the allocation of loop plant common costs ranged from the 25-30% range proposed by Bell Atlantic, up to a factor of 50% proposed by the Southern New England Telephone Company.[173] Bell Atlantic's position is consistent with the view it adopted in the dialtone proceedings -- once the loop plant is used to provide another service other than voice service, it should be treated as a joint facility and not recovered in whole from one service.

In response to the NPRM on allocation of costs with provision of video service, some (e.g., Bell Atlantic) argued that pure price caps eliminate the need for cost allocation requirements as a safeguard against cross subsidies.[174] However, the FCC initiated that rulemaking procedure well aware that many of the ILECs were operating under price cap regulation. More importantly, Congress most certainly did not agree with Bell Atlantic -- price caps were in effect when it passed section 254(k).

Furthermore, in a later Report and Order, the FCC found that

> "...our current system of interstate price cap regulation does not eliminate the need for cost allocation rules. Moreover, because these incumbent local exchange carriers' intrastate services may be subject to cost-of-service regulation or to a form of price cap regulation that involves potential sharing obligations or periodic earnings reviews, the incumbent local exchange carriers may still have an incentive to assign a disproportionate share of costs to regulated accounts."[175]

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[173] See Bell Atlantic Comments, In the Matter of Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, CC Docket No. 96-112, May 31, 1996, at 10 and Comments of the Southern New England Telephone Company, In the Matter of Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, CC Docket No. 96-112, May 31, 1996, at 12-13. It should be noted that in another video dialtone proceeding, Bell Atlantic's Witness, Dr. William E. Taylor, stated that: "Since the proposed network supports current and future services and lowers the cost of maintaining and provisioning current services, it would be economically incorrect to require that all costs of the upgraded network platform be recovered entirely from only one of the many new services that it will make available. Rather, the price of each service that uses the platform should be required to recover at least the incremental cost of the service and, together, revenue from all services that use the platform must recover the incremental cost of the platform. Just as multiproduct firms in competitive markets recover common costs from all of the services they supply in proportions that depend on market conditions for the different services, the common cost of the network platform should be recovered from all services that use the platform." (Reply of Bell Atlantic; Exhibit A—Affidavit of William E. Taylor, Ph.D., Before the Federal Communications Commission, In the Matter of The Bell Atlantic Telephone Companies Tariff FCC No. 10, Video Dialtone Service, Transmittal No. 741, March 6, 1995, at 3-4) (Emphasis in original).

It should also be noted that SNET proposed that this 50% allocation be applied to divide the joint and common costs of the loop equally between telephony and broadband services.

[174] See, for example, Bell Atlantic Comments, In the Matter of Allocation of Costs Associated with Local Exchange Carrier Provision of Video Programming Services, CC Docket No. 96-112, May 31, 1996, at 1-6.

[175] Report and Order, In the Matter of Implementation of the Telecommunications Act of 1996: Accounting Safeguards Under the Telecommunications Act of 1996, CC Docket No. 96-150, FCC 96-490, Adopted: December 23, 1996, Released: December 24, 1996, at ¶271.

The FCC went on to note that, while future changes in the competitive conditions of the local telecommunications markets may require a re-examination of the continued need for the Part 64 cost allocation rules, those rules remain important to the Commission's efforts to ensure that rates for regulated services are just, reasonable, and non-discriminatory.[176] As has been recently pointed out by the Joint Board on Separations, the time for the FCC to reexamine these rules is now.[177]

This consistent reasoning demonstrates that the FCC fully recognizes the need to apportion loop costs among services, rather than impose 100% of them on the "services included in the definition of universal service."[178]

While Section 254(k) does not prescribe an exact figure or formula for the apportionment of costs between services supported by universal service and other non-supported services it does require some reasonable Commission assessment of the relative costs of providing those services and a rational apportionment of those costs.

This proposed method for apportionment of costs between those services supported by universal service and those not so supported is clearly more rational than that proposed by the CALLS Order, which imposed an increased end user SLC as the sole method of interstate loop cost recovery. This imposition of 100% of all interstate loop costs on one group of services cannot be deemed reasonable, or economically efficient, especially as technological advances continue to expand the variety of services that carriers can and do provide over the local loop. It is imperative that the FCC institute a more rational allocation of loop costs as the ILECs' engineer their networks more and more towards the next generation converged network offering "...a single network infrastructure for delivering integrated voice/data services."[179]

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[176] Id. It should also be noted that the FCC recognized that the portion of section 254(k) requiring "[t]he Commission, with respect to interstate services . . . [to] establish any necessary cost allocation rules, accounting safeguards, and guidelines to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services" was not addressed in the 96-150 Order. The FCC went on to state that this portion of 254(k) would be the subject of a separate rulemaking proceeding. (Id. at ¶275)

[177] "As competitive services emerge, it has become more difficult to ensure that non-competitive services are paying only a fair and reasonable share of common costs. Current jurisdictional separations procedures do not recognize the increase in competitive services, nor have separations procedures been adjusted in recognition of the safeguard requirements of the Act. Part 64, as applied, concentrates primarily upon expense accounts not investment accounts, and thus may not provide useful information to ensure compliance with § 254(k)." (Options for Separations; A Paper Prepared by the State Members of the Separations Joint Board, Approved December 17, 2001, at 6.)

[178] 47 U.S.C. § 254(k).

[179] DSL Anywhere: A Paper Designed To Provide Options For Service Providers To Extend The Reach Of DSL Into Previously Un-Served Areas, a DSL Forum Whitepaper submitted December 12, 2001 in the National Telecommunications and Information Docket No. 011109273-1273-01, In the Matter of Request