DIRECT TESTIMONY OF

DON J. WOOD

ON BEHALF OF AT&T COMMUNICATIONS

OF THE SOUTHERN STATES, INC.

Docket No. 960847 - TP

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Don J. Wood, and my business address is 914 Stream Valley Trail, Alpharetta, Georgia 30202. I provide consulting services to the ratepayers and regulators of telecommunications utilities.

Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.

A. I received a BBA in Finance with distinction from Emory University and an MBA with concentrations in Finance and Microeconomics from the College of William and Mary. My telecommunications experience includes employment at both a Regional Bell Operating Company ("RBOC") and an Interexchange Carrier ("IXC"). I was employed in the local exchange industry by BellSouth Services, Inc. in its Pricing and Economics, Service Cost Division. My responsibilities included performing cost analyses of new and existing services, preparing documentation for filings with state regulatory commissions and the Federal Communications Commission ("FCC"), developing methodology and computer models for use by other analysts, and performing special assembly cost studies. I was employed in the interexchange industry by MCI Telecommunications Corporation as a Regulatory Manager in the Southern Division, where I was responsible for the development and implementation of regulatory policy for operations in the region. I then served as a

Manager in the Economic Analysis and Regulatory Affairs Organization, where I participated in the development of regulatory policy for national issues.

Q. HAVE YOU PREVIOUSLY PRESENTED TESTIMONY BEFORE STATE REGULATORY COMMISSIONS?

A. Yes. I have testified on telecommunications issues before the regulatory commissions of twenty-three states, the District of Columbia, state courts, and have presented comments to the FCC. A listing of my previous testimony is attached as Exhibit DJW-1.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I am appearing on behalf of AT&T Communications of the Southern States, Inc. ("AT&T") to describe the methodology that AT&T believes should be used for accurately determining the relevant costs of unbundled network elements to be provided by GTE - Florida ("GTE," or "Company") pursuant to the Federal Telecommunications Act of 1996. I will also describe the results of applying this method in the state of Florida, and provide an overview of the model used to develop these costs.

My testimony is divided into three sections: Section I introduces the basis for the costs developed by AT&T for the unbundled network elements and describes how those costs -- and the underlying methodology used to develop them -- are consistent with sound economic costing principles generally and with the FCC's August 8, 1996 First Report and Order in CC Docket 96-98. Section II describes how the model used to develop these costs operates, and Section III identifies any state-specific inputs used and reports the results of this analysis. I will refer to the

methodology used as the Hatfield Model ("HM"), and will discuss the results obtained using Version 2.2, Release 2, of that model.

Q. PLEASE DESCRIBE YOUR EXPERIENCE REVIEWING COST MODELS AND METHODOLOGIES.

A. While employed in the BellSouth Service Cost organization, I had the opportunity to work with a number of cost models and to analyze and review the manner in which these models were used in the cost development process. Since that time, I have reviewed incremental cost studies performed by each of the seven regional Bell Operating Companies ("RBOCs") and a number of Tier 1 Local Exchange Companies ("LECs"), including GTE. My review has included an evaluation of the methodologies, computer models and spreadsheets, and inputs/assumptions used. I have also been asked by regulators to develop detailed rules to be used by the LECs when performing TSLRIC studies.

Two constant sources of frustration have been present throughout this process: 1) The lack of publicly available information related to the LEC studies,[i] and 2) the lack of independent and objective cost data to be used as a benchmark for the evaluation of the LEC-provided data.

Section I: Description of the Cost Principles Implemented by the Hatfield Model

Q. PLEASE DESCRIBE THE ORIGIN AND PURPOSES OF THE HATFIELD MODEL.

A. The Hatfield Model was developed by Hatfield Associates, Inc. of Boulder, Colorado at the request of AT&T and MCI. Its purposes are to 1) estimate the costs

of the unbundled network elements described in § 252 (d) (1)(A) and (B) of the Telecommunications Act of 1996, and 2) in a separate calculation based on the same data, to develop an estimate of the cost of basic exchange telephone service that is the target of universal service funding mechanisms.

The HM derives some of its inputs and methods from version 1 of the Benchmark Cost Model ("BCM"), which was developed by US WEST, NYNEX, MCI, and the local services operation of Sprint.[ii] The HM, however, considerably enhances the value of BCM, however, by adding the interoffice portion of the local exchange network and by performing a finer-grained calculation of capital carrying costs and operational expenses associated with the estimated level of network investment.

Q. HAS THE HATFIELD MODEL EVOLVED OVER TIME?

A. Yes. Originally, the Model was used to produce estimates of the TSLRIC of basic local exchange service as part of an examination of the cost of universal service. A version, referred to as the Hatfield Model V.2.2, Release 1 was then developed to estimate costs for unbundled network elements only. AT&T submitted this version of the model to the Federal Communications Commission on May 16, 1996, accompanied by documentation that describes the model.[iii] Version 2.2, Release 2, used to produce the results in this testimony, considers both unbundled elements and basic local exchange service. It also incorporates a number of enhancements over earlier versions, the ultimate effect of which is to increase the degree of certainty associated with the results it calculates.

Q. WHAT ARE THE KEY PRINCIPLES AND ATTRIBUTES OF THE HATFIELD MODEL?

A. The model uses sound economic costing principles to estimate the relevant costs. Its operations can be readily scrutinized, and a large number of its inputs can be set by users. It includes all network elements and associated costs that are necessary to provide the unbundled elements and local exchange service considered by the model. Finally, it provides estimates that are conservatively high, in order to ensure that the relevant costs are not overstated.

Q. PLEASE DESCRIBE THE PUBLIC NATURE OF THE MODEL.

A. Version 2.2, Release 1 of the model has been available through the International Transcription Service of Washington, DC, for some time. Release 2 of the model will shortly be available from the same source, and will be made available in this proceeding. The new release will be accompanied by complete documentation that describes the operation of the model. In addition, a considerable effort has been expended to facilitate the setting of many inputs by the user of the model through a graphical interface, and it is anticipated that this interface will be available when the model is released, or shortly thereafter.

The inputs to the model, both those adjustable by the user and those incorporated into the model itself, are readily visible to the user. The model runs as a set of Excel spreadsheets, and those spreadsheets can be examined by the user.

Q. WHY IS IT IMPORTANT THAT COST MODELS CAN BE PUBLICLY REVIEWED IN THIS FASHION?

A. Previously lacking such open cost models, regulators and intervenors have been forced to rely on cost studies produced by the incumbent Local Exchange Carriers (ILECs) as the only available source of cost data. Attempts to review, analyze, and

verify the cost data produced by such models have met with, at best, only limited success.

As described above, two constant sources of frustration have been present throughout the process of reviewing such models. First, the lack of publicly available information related to the ILEC studies has often made a meaningful review difficult or impossible. The inputs and assumptions used by the respective ILECs, when made available, have often been subject to proprietary protection. Similarly, the mechanized cost models have often remained "black boxes" because of the inability of intervenors (and often regulators) to test either the accuracy of the algorithms or the sensitivity of the model to inputs and assumptions. The second source of frustration has been the lack of independent and objective cost data to be used as a benchmark for the evaluation of the LEC-provided data. Without such an objective data source, it has been impossible for either regulators or intervenors to ascertain the reasonableness of ILEC cost estimates.

In contrast to the difficulty often experienced when attempting to evaluate ILEC cost studies and the underlying models, a review of the Hatfield Model can be direct and straight-forward. Complete and detailed documentation of the model is available, including descriptions of both the model algorithms and the inputs and assumptions used. Because the model is publicly available and its inputs can be varied by the user, it is possible to directly evaluate the model for accuracy and to ascertain the sensitivity of the model to changes in various inputs. Because this level of review is possible, it is possible for the reviewer to conclude that the model produces both reasonable and verifiable cost data.

In summary, a fundamental issue with any cost study is the integrity of the assumptions, calculations and input values used to develop the ultimate outputs.

The only method to test the reliability of the final product is to make all of the data as well as the methodology accessible for independent scrutiny and evaluation. The Hatfield Model uses clearly documented and visible methodologies which are verifiable and non-proprietary data obtained from publicly-available sources. Both the inputs and outputs to the Hatfield Model are open for inspection and analysis. Inputs can be varied as appropriate, and sensitivity testing can be conducted by varying these inputs. The results are all subject to challenge and verification.

Q. DOES THE HATFIELD MODEL CALCULATE COSTS USING A METHODOLOGY THAT IS CONSISTENT WITH THE "FORWARD LOOKING ECONOMIC COST" BASED STANDARD ADOPTED BY THE FCC? PLEASE DESCRIBE THE STATED BASIS FOR THIS METHODOLOGY.

A. In its August 8, 1996 First Report and Order in CC Docket 96-98 ("Order"), the FCC concluded that because "the prices of interconnection and unbundled elements...are critical terms and conditions of any interconnection agreement," it elected to "set forth the methodological principles" to be used when determining relevant costs and rates (para. 618). The FCC outlines in some detail a "cost based pricing methodology based on forward looking economic costs" which it concludes is the approach for setting prices that best furthers the goals of the 1996 Act" (para. 620), and that will "give appropriate signals to producers and consumers and ensure efficient entry and utilization of the telecommunications infrastructure" (para. 630). This methodology is to be used to determine costs and rates for unbundled network elements, interconnection, and collocation (paras. 628, 629).

Q. WHAT ARE THE ELEMENTS OF THE FCC'S METHODOLOGY?

A. In order to develop a national standard for the calculation of forward looking economic costs, the FCC identified the following criteria to be used:

Inclusion of three specific categories of cost. Unbundled network elements should be priced at "the forward looking costs that can be attributed directly to the provision of services using that element, plus a reasonable share of the forward looking joint and common costs" (para.673). The FCC goes on in subsequent paragraphs of the Order to define these terms and to give illustrative examples (See paras. 678,679,682, 690, 691, 694, 698). The HM includes the relevant costs from each of these categories: costs that are incremental only to the network element being studied, costs that are incremental to more than one network element of to the LEC's "wholesale" operations generally, and forward looking variable support costs (sometimes referred to by accountants as "overhead" or "common" costs) that are used to provide multiple services.

Use of a long run assumption. The term long run, in the FCC's methodology, "refers to a period long enough so that all of a firm's costs become variable or avoidable" (para. 677). The HM uses this assumption when identifying relevant investments and expenses.

Use of a forward-looking methodology. The FCC concluded that the relevant costs should be the costs that "a carrier would incur in the future" (para. 683), and that a "forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center

locations" (para. 685). The HM utilizes existing wire center locations, and develops investments using the most efficient, currently available technologies for the provision of loop facilities, switching, interoffice transport, and signaling.

The inclusion of a "reasonable profit." The FCC concludes that "the concept of normal profit is embodied in forward looking costs because the forward looking cost of capital...is one of the forward-looking costs of providing the network elements," (para. 700), and that because a normal profit is represented by the LEC's forward looking cost of capital, "no additional profit is justified under the statutory language" (para. 699). The HM includes a forward looking cost of capital in the costs that it calculates, and does not provide an additional "markup" over this level.

Embedded costs should not be included. The FCC concluded that a cost methodology based on embedded costs, or a "markup" to reflect the difference between forward-looking and embedded costs, "would be pro-competitor -- in this case the incumbent LEC -- rather than pro-competition," and went on to state that "we reiterate that the prices for interconnection and network elements critical to the development of a competitive local exchange should be based on the pro-competition, forward looking, economic costs of those elements, which may be higher or lower than historical embedded costs. Such pricing policies will best ensure the efficient investment decisions and competitive entry contemplated by the 1996 Act" (para. 705). The HM is based on forward looking economic costs, and embedded investments are not used.

Universal Service Subsidies should not be included. The FCC concluded that "funding for any universal service mechanisms adopted in the universal service proceeding may not be included in the rates for interconnection, network elements, and access to network elements" (para. 712). The HM does not include these costs in its calculations.

Access to Cost Data/Burden of Proof. The FCC notes that "the incumbent LECs have greater access to the cost information necessary to calculate the incremental cost of the unbundled elements of the network. Given this asymmetric access to cost data, we find that incumbent LECs must prove to the state commission the nature and magnitude of any forward looking cost that it seeks to recover" (para. 680, 695). The HM calculates costs using the best publicly available data that has been identified. The model is designed to permit calculations of cost based on LEC-provided data if the LEC has met the burden of proof that these data will accurately identify forward looking costs.

Use of generic forward looking cost models. While the FCC stated that it had not had ample time to review the Hatfield Model specifically, it stated that the HM and similar generic models "appear best to comport with the preferred economic cost approach discussed previously" in the Order (para. 834), and that the HM and similar models "appear to offer a method of estimating the cost of network elements on a forward looking basis that is practical to implement and that allows state commissions the ability to

examine the assumptions and parameters that go into the cost estimates" (para. 835). Of those models referred to by the FCC in this section, only the Hatfield Model is based on publicly available data and permits scrutiny by both commissions and interested parties.

In conclusion, the Hatfield Model complies with the detailed explanation of the cost methodology adopted by the FCC.

Q. WHY DO YOU SAY THAT THE HATFIELD MODEL YIELDS COST ESTIMATES THAT ARE LIKELY TO PROVE CONSERVATIVELY HIGH?

A. This conclusion is based on several facets of the operation of the model. For example, while it would be desirable to use forward-looking studies to estimate the expenses associated with the operation of the local exchange network, such forward looking studies are not available. As a result, the HM uses the most recently-published expense data that are available from the LECs, as embodied in the FCC Automated Recording Mechanized Information System ("ARMIS"). Given the current cost-declining nature of the local exchange industry, such historical costs are likely to over-estimate the expenses associated with a given level of network investment. The model assumes fill factors for distribution plant, and to some extent feeder plant, that are well below the objective fill factors assumed by some Commissions. The effect of this is to increase the per-line costs of loop-related network elements and of basic local exchange service.

While it is not possible to quantify such effects -- if it were, the model would properly provide a corresponding reduction in costs -- they suggest that, if the model deviates at all from a proper estimate of costs, it errs on the side of higher costs.

Q. HAVE REGULATORS AND ECONOMISTS ENDORSED THE HATFIELD MODEL?

A. Yes. With reference to an earlier version of the model, which lacks a number of the features and enhancements incorporated into Release 2, the Washington Utilities and Transportation Commission concluded the following:

> The Commission rejects USWC's cost studies for local service and the local loop. The most reasonable and accurate measure of incremental cost for these services on this record is provided by the Hatfield model ... We are satisfied that it accurately reflects costs incurred by USWC and that, if it errs, it likely errs on the high side.[iv]

Nationally prominent economists have also endorsed the HM. In an affidavit submitted in response to the FCC's April 19, 1996, Notice of Proposed Rulemaking in CC Docket No. 96-98, Professors William J. Baumol, Janusz A. Ordover and Robert D. Willig state in paragraph 38 that:

> We have reviewed the costing model constructed for AT&T and MCI by Hatfield Associates, Inc., a telecommunications consulting firm. The object of the current Hatfield model is to estimate the total costs of building and operating a network, using efficient, forward-looking technology, to supply all "basic" narrowband services (essentially all local and intraLATA toll service, including carrier access) currently supplied in the United States. We conclude that

the Hatfield Model follows reasonably closely the TSLRIC principles discussed in Section II. Where limitations on the availability of data have forced the designers of the model to use approximations that deviate from the theoretical ideal, the shortcuts adopted tend to overestimate, not underestimate, true TSLRIC. Further the model is extremely flexible: whenever values are available, they can readily be substituted for the values used currently.

Section II: Constituents and Operation of the Hatfield Model

Q. PLEASE PROVIDE A SUMMARY DESCRIPTION OF THE HATFIELD MODEL'S OPERATION.

A. The Hatfield Model employs a methodology based upon engineering standards and methods applicable to the local exchange network in order to estimate the costs that would be incurred by an efficient firm to provide the unbundled network functions and basic exchange service that are considered by the model. Specifically, these costs would be incurred by an efficient LEC to provide the specified functions and services using a network designed to provide narrowband, voice-grade telephone services. The Hatfield Model is a table-driven system that is adaptable to any LEC or geographic area, provided the appropriate state-specific and company-specific information is available and input into the model.

Q. HOW DOES THE HATFIELD MODEL RELATE TO THE BCM?

A. A key constituent of the HM is BCM-PLUS, which was derived from the first version of the BCM ("BCM1"). However, BCM-PLUS, and the remaining modules

of the HM, use BCM1 only as an initial step in the development of the investment associated with the feeder and distribution components of the local loop. The Hatfield Model adds network components not included in BCM1. It also applies BCM1 output to its own switching investment module. The switching module in the Hatfield Model contains separate, user-changeable factors for switching investment, construction, installation, floor space and frames. This disaggregation provides for a thorough determination of wire center costs. The same module determines the investment in interoffice call transport and signaling facilities.

Q. HOW SPECIFICALLY DOES THE HATFIELD MODEL MODIFY BCM1 INPUTS OR OUTPUTS?

A. The HM modifies BCM1 in a number of ways. First, the HM uses a 1995 estimate of households per Census Block Group (CBG), whereas BCM1 used 1990 census data. Second, the HM accounts for multi-line residences, and business, special access, and payphone lines, which were excluded from the loop facilities calculation in the BCM1. In doing so, it uses a database showing the number of employees per CBG that was not identified at the time BCM1 or earlier versions of the HM were written. Third, the HM estimates costs according to the line density -- that is, the number of *lines* served per square mile -- rather than the number of *households* per square mile. Fourth, the HM increases the amount of distribution cable in the two highest density ranges, and decreases it in lowest density range, consistent with the amount of cable that would actually be required for such a line density. Fifth, the HM estimates structure costs independently of the cost of the cable itself, whereas the BCM1 estimated structure costs as a multiplier of cable costs. In addition, the HM includes cable installation (placement) costs, which tends to increase the per-

foot cost of the cable. Sixth, the Hatfield Model includes costs associated with network elements that were not included in the BCM1, such as the drop wire, network interface device, terminal, and serving area interface portions of the local loop, and the facilities necessary to connect LEC end offices (interoffice facilities). These are perhaps the most significant changes; there are a number of additional minor changes.

As already noted, U S WEST and Sprint recently released a new version of the Benchmark Cost Model ("BCM2"). BCM2 incorporates many, but not all, of the modifications that the Hatfield Model made to BCM1.

Q. PLEASE DESCRIBE THE INPUT DATA USED BY THE HATFIELD MODEL.

A. The Hatfield Model uses seven primary categories of input data: CBG data, business employee data, cable and installation cost data, wire center data, traffic data, expense data, and ARMIS-reported data on the number of residence and business lines. The CBG data used by the Hatfield Model are: 1) number of households in each CBG; 2) CBG land area; 3) CBG position relative to the nearest wire center; and 4) geological factors including rock depth, rock hardness, water table depth, and surface texture. The business line data provide the number of business employees by CBG; this information is used to distribute the ARMIS-reported number of business, special access, and payphone lines by CBG.

The wire center data provides the location of existing wire centers in each LATA, as well as the location of existing tandem switches and signal transfer points.

Network traffic is estimated using dial equipment minutes and call attempt statistics. These inputs are used to appropriately size investment in switching, signaling, and interoffice facilities, as well as to calculate usage-sensitive costs for several of the

unbundled network elements.

The information necessary to estimate future carrier-to-carrier expenses associated with operating and maintaining the telephone network comes from two sources. Forward-looking expense information is used if it exists in the public domain. Where no such data is available, selected expense data reported by the LECs in ARMIS is used because it is the best publicly available data.

Q. WHAT ARE THE FUNCTIONAL MODULES THAT COMPRISE THE HATFIELD MODEL?

A. The Hatfield Model contains six functional modules. They are:

Line Multiplier Module;

Data Module;

Loop Module;

Wire Center Investment Module;

Convergence Module; and

Expense Module.

An overview of each of the modules is provided below.

Q. WHAT IS THE PURPOSE OF THE LINE MULTIPLIER MODULE?

A. In order to calculate costs on a per line basis, the HM uses estimates of the total number of lines (including residential, business, public telephone and special access lines) within each CBG. CBG input data contains the number of households, not number of lines, in each CBG. The line multiplier module determines a ratio of total residential lines reported in ARMIS to total households, and applies this ratio to the number of households in each CBG to estimate the number of residential lines by

CBG. It estimates the number of business, special access, and payphone lines by distributing the corresponding ARMIS numbers among CBGs proportionally to the number of employees in each of the CBGs.

Because the network is sized to provide all loops, not just residential loops, and because the total line density may be substantially different than the residential line density, the model subsequently categorizes and reports costs within CBGs according to total line density (i.e., total lines served per square mile) rather than residential line density. Line density is broken into six categories, or density ranges: 0-5, 5-200, 200-650, 650-850, 850-2,550 and greater than 2,550 lines per square mile, respectively.

Q. WHAT FUNCTION IS PERFORMED IN THE DATA MODULE?

A. The Data Module uses CBG data and line totals to determine the quantity and type of outside loop plant facilities required, based upon density and distance of the CBG from the wire center. In doing so, it basically employs the same methodology as does the BCM1, although there are a few exceptions, such as 1) as already discussed, the length of distribution cable is changed for the highest and lowest line density zones; 2) the fiber-copper breakpoint -- that is, the feeder length below which copper cable, and above which fiber cable, are used -- becomes a user input; and 3) fiber cable is assumed to have a higher equivalent line capacity than is assumed by BCM1. The HM also separately considers the amounts and costs of underground and buried cable, whereas they were combined in the BCM1. The Data Module also calculates outside plant structure (poles, conduits) costs associated with placing and installing cable under varying terrain and population density conditions.

Q. WHAT FUNCTION IS PERFORMED BY THE LOOP MODULE?

A. The Loop Module, which is also part of BCM1, determines the size and type of cable required to serve each CBG, given loop lengths, fill levels, and population density. The Module then uses the distribution and feeder lengths calculated in the Data Module as well as cable price information to determine the total required loop investment for each CBG including supporting structure investment.

Q. WHAT IS THE PURPOSE OF THE WIRE CENTER MODULE?

A. The Wire Center Module calculates wire center and interoffice facilities investments. This module quantifies investments associated with end office switches, wire centers, trunks, tandems (including operator tandems, and operator positions), signaling links, signal transfer points (STPs), and service control points (SCPs). Some of the elements it considers, such as the cost of the SCPs and operator positions, are relevant only to unbundled network elements; the remainder are germane to both unbundled elements and the cost of basic local service. The module uses the total number of access lines, the location of wire centers, and network traffic data to determine required switching, trunking, and signaling investments.

The module sizes network facilities sufficient to serve the total demand created by all users and uses of the network. The Hatfield Model derives its switch investment estimates by using both typical per line prices paid for by Bell Operating Companies, GTE and other independents for end office switches (according to a published source), and by using Table 2.10 of the FCC's Statistics of Communications Common Carriers, which provides the average number of access lines served by a LEC switch.

Q. WHAT IS THE PURPOSE OF THE CONVERGENCE MODULE?

A. The Convergence Module modifies the loop investment calculated in the Loop Module to account for network elements omitted from BCM1. It combines the modified loop investment with the wire center, interoffice, and signaling investment calculated in the Wire Center Module. For each of the six density ranges, the convergence module reports the number of lines by type, number of households and investment in categories such as distribution, feeder, end office switching, tandems, and trunks.

Q. PLEASE DESCRIBE THE EXPENSE MODULE.

A. The Expense Module uses the outputs from the Convergence Module to determine annual capital carrying costs, operations and maintenance expenses, and support expenses associated with the investments needed for a local telecommunications network. This module uses the best publicly available information to estimate future expenses. It reports the annual cost for each unbundled network element. The module requires as inputs appropriate assumptions as to the capital structure (cost of debt, cost of equity, and debt/equity ratio; hence overall cost of cost of capital); the economic lives of various categories of network equipment and facilities, and the relationship between investment and expenses. It produces the appropriate unit cost of various unbundled network elements and of basic exchange service. These units vary by type of element and service: for instance, the cost of unbundled local switching is reported as both cost per port and cost per minute of use; while the SCP cost unit is messages. Basic local exchange service is reported as the cost per line per month for the service, whose elements have been defined previously. The

results are reported by line density zone, using the ranges I have defined previously.

Q. HATFIELD MODEL VERSION 2.2, RELEASE 1, HAS BEEN DESCRIBED IN THE PREVIOUSLY-REFERENCED DOCUMENTATION FILED WITH THE FCC BY AT&T. PLEASE SUMMARIZE THE KEY DIFFERENCES BETWEEN HATFIELD MODEL RELEASE 1 AND RELEASE 2.

A. The key differences may be summarized as follows. Compared to Release 1, Release 2:

- estimates the cost of basic local exchange service (as well as the costs of the UNEs).

- tentatively provides a graphical user interface to facilitate the setting of user inputs and running the model,

- provides an increased set of inputs that can be set by the user,

- uses a 1995 estimate of households by CBG, rather than 1990 census data,

- estimates the number of business, special access, and payphone lines per CBG using a database containing employees per CBG,

- increases the length of distribution cable for the two highest-density ranges, and decreases it for the least dense range,

- specified cable costs on an as-installed basis, generally leading to higher

per-foot cable costs,

- separates structure costs from cable costs, rather than calculating them as a multiplier of cable costs,

- places each serving area interface (the interface point between feeder and distribution cable) inside the CBG it serves, rather than at the edge of the CBG,

- refines the treatment of interoffice transport and signaling costs,

- provides a greater disaggregation of expense factors, for instance, by considering underground and buried cable expenses separately, and

- adds the estimated cost of local number portability.

Section III: Florida-Specific Model Results

Q. PLEASE SUMMARIZE THE MODEL INPUTS THAT HAVE BEEN USED TO DEVELOP COST ESTIMATES FOR FLORIDA.

A. The inputs used to perform the run of the model used to develop costs for use in this proceeding are attached as Exhibit DJW-2. As with all data, AT&T is continuing to evaluate the accuracy and validity of these inputs in order to ensure the reliability of the cost information produced by the model.

Q. WHAT ARE THE RESULTS OF THE MODEL?

A. In Exhibit DJW-3, I have included the results of running the Hatfield Model with data specifically for use in this proceeding. The summary results of AT&T's analysis are included in Exhibit DJW-4.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

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[i]The inputs and assumptions used by the respective LECs, when made available, have been subject to proprietary protection. Similarly, the mechanized cost models have often remained "black boxes' because of the inability of intervenors (and often regulators) to test either the accuracy of the algorithms or the sensitivity of the model to inputs and assumptions.

[ii]On July 3, 1996, US West and Sprint Corporation presented version 2 of the BCM to the FCC. NYNEX and MCI are not sponsors of BCM2. A careful review indicates that the purported enhancements in BCM2 are already present in the Hatfield Model.

[iii]Appendix E of the Comments of AT&T in Docket CC 96-98, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996.

[iv]WUTC Docket No. UT-950200, Fifteenth Supplemental Order, page 82.

Vita of Don J. Wood
914 Stream Valley Trail, Alpharetta, Georgia 30202

EDUCATION

Emory University, Atlanta, Ga.
BBA in Finance, with Distinction.

College of William and Mary, Williamsburg, Va.
MBA, with concentration in Finance and Microeconomics.

CURRENT EMPLOYMENT

Don J. Wood provides economic and regulatory analysis services in telecommunications and related industries. He has been employed in a management capacity at a major Local Exchange Company and an Interexchange Carrier, and has been directly involved in both the development and implementation of regulatory policy. He has presented testimony before the Regulatory Commissions of twenty-three states and the District of Columbia, state courts, and has prepared comments for filing with the Federal Communications Commission.

PREVIOUS EXPERIENCE

BellSouth Services, Inc.

Staff Manager responsible for conducting cost of service studies to be filed for regulatory purposes at State Commissions and FCC. Developed new costing methodologies and models for use by other analysts.

MCI Telecommunications Corporation.

Manager of Regulatory Analysis, Southeast Division. Responsible for development and implementation of regulatory policy for nine state division of the company. Duties included testimony before State Commissions, preparation of related pleadings, settlement negotiations, and development of relationships with Commission Staff and key industry personnel. After company reorganization, responsibilities expanded to new 15 state Southern Division.

Manager, Corporate Economic Analysis and Regulatory Affairs. Responsible for national regulatory policy development. Acted as part of a four person internal consulting team, specifically assigned to new/complex issues. Testimony before State Commissions throughout eastern US and comments/lobbying at FCC.

TESTIMONY - STATE REGULATORY COMM

Alabama Public Service Commission

Docket No. 19356, Phase III: Alabama Public Service Commission vs. All Telephone Companies Operating in Alabama, and Docket 21455: AT&T Communications of the South Central States, Inc., Applicant, Application for a Certificate of Public Convenience and Necessity to Provide Limited IntraLATA Telecommunications Service in the State of Alabama.

Docket No. 20895: In Re: Petition for Approval to Introduce Business Line Termination for MCI's 800 Service.

Docket No. 21071: In Re: Petition by South Central Bell for Introduction of Bidirectional Measured Service.

Docket No. 21067: In Re: Petition by South Central Bell to Offer Dial Back-Up Service and 2400 BPS Central Office Data Set for Use with PulseLink Public Packet Switching Network Service.

Docket No. 21378: In Re: Petition by South Central Bell for Approval of Tariff Revisions to Restructure ESSX and Digital ESSX Service.

Docket No. 21865: In Re: Petition by South Central Bell for Approval of Tariff Revisions to Introduce Network Services to be Offered as a Part of Open Network Architecture.

Arkansas Public Service Commission

Docket No. 92-337-R: In the Matter of the Application for a Rule Limiting Collocation for Special Access to Virtual or Physical Collocation at the Option of the Local Exchange Carrier.

State of Connecticut, Department of Utility Control

Docket 91-12-19: DPUC Review of Intrastate Telecommunications Services Open to Competition (Comments).

Docket No. 94-07-02: Development of the Assumptions, Tests, Analysis, and Review to Govern Telecommunications Service Reclassifications in Light of the Eight Criteria Set Forth in Section 6 of Public Act 94-83 (Comments).

Delaware Public Service Commission

Docket No. 93-31T: In the Matter of the Application of The Diamond State Telephone Company for Establishment of Rules and Rates for the Provision of IntelliLinQ-PRI and IntelliLinQ-BRI.

Docket No. 41: In the Matter of the Development of Regulations for the Implementation of the Telecommunications Technology Investment Act.

Florida Public Service Commission

Docket No. 881257-TL: In Re: Proposed Tariff by Southern Bell to Introduce New Features for Digital ESSX Service, and to Provide Structural Changes for both ESSX Service and Digital ESSX Service.

Docket No. 880812-TP: In Re: Investigation into Equal Access Exchange Areas (EAEAs), Toll Monopoly Areas (TMAs), 1+ Restriction to the Local Exchange Companies (LECs), and Elimination of the Access Discount.

Docket No. 890183-TL: In Re: Generic Investigation into the Operations of Alternate Access Vendors.

Docket No. 870347-TI: In Re: Petition of AT&T Communications of the Southern States for Commission Forbearance from Earnings Regulation and Waiver of Rule 25-4.495(1) and 25-24.480 (1) (b), F.A.C., for a trial period.

Docket No. 900708-TL: In Re: Investigation of Methodology to Account for Access Charges in Local Exchange Company (LEC) Toll Pricing.

Docket No. 900633-TL: In Re: Development of Local Exchange Company Cost of Service Study Methodology.

Docket No. 910757-TP: In Re: Investigation into the Regulatory Safeguards Required to Prevent Cross-Subsidization by Telephone Companies.

Docket No. 920260-TL: In Re: Petition of Southern Bell Telephone and Telegraph Company for Rate Stabilization, Implementation Orders, and Other Relief.

Docket No. 950985-TP: In Re: Resolution of Petitions to establish 1995 rates, terms, and conditions for interconnection involving local exchange companies and alternative local exchange companies pursuant to Section 364.162, Florida Statutes.

Georgia Public Service Commission

Docket No. 3882-U: In Re: Investigation into Incentive Telephone Regulation in Georgia.

Docket No. 3883-U: In Re: Investigation into the Level and Structure of Intrastate Access Charges.

Docket No. 3921-U: In Re: Compliance and Implementation of Senate Bill 524.

Docket No. 3905-U: In Re: Southern Bell Rule Nisi.

Docket No. 3995-U: In Re: IntraLATA Toll Competition.

Docket No. 4018-U: In Re: Review of Open Network Architecture (ONA) (Comments).

Docket No. 5258-U: In Re: Petition of BellSouth Telecommunications for Consideration and Approval of its "Georgians FIRST" (Price Caps) Proposal.

Docket No. 5825-U: In Re: The Creation of a Universal Access Fund as Required by the Telecommunications Competition and Development Act of 1995.

Iowa Utilities Board

Docket No. RPU-95-10.

Docket No. RPU-95-11.

Kentucky Public Service Commission

Administrative Case No. 10321: In the Matter of the Tariff Filing of South Central Bell Telephone Company to Establish and Offer Pulselink Service.

Administrative Case No. 323: In the Matter of An Inquiry into IntraLATA Toll Competition, An Appropriate Compensation Scheme for Completion of IntraLATA Calls by Interexchange Carriers, and WATS Jurisdictionality.

- Phase IA: Determination of whether intraLATA toll competition is in the public interest.
- Phase IB: Determination of a method of implementing intraLATA competition.
- Rehearing on issue of Imputation.

Administrative Case No. 90-256, Phase II: In the Matter of A Review of the Rates and Charges and Incentive Regulation Plan of South Central Bell Telephone Company.

Administrative Case No. 336: In the Matter of an Investigation into the Elimination of Switched Access Service Discounts and Adoption of Time of Day Switch Access Service Rates.

Administrative Case No. 91-250: In the Matter of South Central Bell Telephone Company's Proposed Area Calling Service Tariff.

Louisiana Public Service Commission

Docket No. 17970: In Re: Investigation of the Revenue Requirements, Rate Structures, Charges, Services, Rate of Return, and Construction Program of AT&T Communications of the South Central States, Inc., in its Louisiana Operations.

Docket No. U-17949: In the Matter of an Investigation of the Revenue Requirements, Rate Structures, Charges, Services, Rate of Return, and Construction Program of South Central Bell Telephone Company, Its Louisiana Intrastate Operations, The Appropriate Level of Access Charges, and All Matters Relevant to the Rates and Service Rendered by the Company.

- Subdocket A (SCB Earnings Phase)

- Subdocket B (Generic Competition Phase)

Docket No. 18913-U: In Re: South Central Bell's Request for Approval of Tariff Revisions to Restructure ESSX and Digital ESSX Service.

Docket No. U-18851: In Re: Petition for Elimination of Disparity in Access Tariff Rates.

Public Service Commission of Maryland

Case 8584, Phase II: In the Matter of the Application of MFS Intelenet of Maryland, Inc. for Authority to Provide and Resell Local Exchange and Intrastate Telecommunications Services in Areas Served by C&P Telephone Company of Maryland.

Case 8715: In the Matter of the Inquiry into Alternative Forms of Regulating Telephone Companies.

Mississippi Public Service Commission

Docket No. U-5086: In Re: MCI Telecommunications Corporation's Metered Use Service

Option D (Prism I) and Option E (Prism II).

Docket No. U-5112: In Re: MCI Telecommunications Corporation's Metered Use Option H (800 Service).

Docket No. U-5318: In Re: Petition of MCI for Approval of MCI's Provision of Service to a Specific Commercial Banking Customers for Intrastate Interexchange Telecommunications Service.

Docket 89-UN-5453: In Re: Notice and Application of South Central Bell Telephone Company for Adoption and Implementation of a Rate Stabilization Plan for its Mississippi Operations.

Docket No. 90-UA-0280: In Re: Order of the Mississippi Public Service Commission Initiating Hearings Concerning (1) IntraLATA Competition in the Telecommunications Industry and (2) Payment of Compensation by Interexchange Carriers and Resellers to Local Exchange Companies in Addition to Access Charges.

Docket No. 92-UA-0227: In Re: Order Implementing IntraLATA Competition.

New York Public Service Commission

Case No. 28425: Proceeding on Motion of the Commission as to the Impact of the Modification of Final Judgement and the Federal Communications Commission's Docket 78-72 on the Provision of Toll Service in New York State.

North Carolina Public Utilities Commission

Docket No. P-100, Sub 72: In the Matter of the Petition of AT&T to Amend Commission Rules Governing Regulation of Interexchange Carriers (Comments).

Docket No. P-141, Sub 19: In the Matter of the Application of MCI Telecommunications Corporation to Provide InterLATA Facilities-Based Telecommunications Services (Comments).

Docket No. P-55, Sub 1013: In the Matter of Application of BellSouth Telecommunications, Inc. for, and Election of, Price Regulation.

Docket Nos. P-7, Sub 825 and P-10, Sub 479: In the Matter of Petition of Carolina Telephone and Telegraph and Central Telephone Company for Approval of a Price Regulation Plan Pursuant to G.S. 62-133.5.

Docket No. P-19, Sub 277: In the Matter of Application of GTE South Incorporated for and Election of, Price Regulation.

Public Utilities Commission of Ohio

Case No. 93-487-TP-ALT: In the Matter of the Application of The Ohio Bell Telephone Company for Approval of an Alternative Form of Regulation.

Oklahoma Corporation Commission

Cause No. PUD 01448: In the Matter of the Application for an Order Limiting Collocation for Special Access to Virtual or Physical Collocation at the Option of the Local Exchange Carrier.

Public Utility Commission of Oregon

Docket No. UT 119: In the Matter of an Investigation into Tariffs Filed by US West Communications, Inc., United Telephone of the Northwest, Pacific Telecom, Inc., and GTE Northwest, Inc. in Accordance with ORS 759.185(4).

Pennsylvania Public Utilities Commission

Docket No. I-00910010: In Re: Generic Investigation into the Current Provision of InterLATA Toll Service.

Docket No. P-00930715: In Re: The Bell Telephone Company of Pennsylvania's Petition and Plan for Alternative Form of Regulation under Chapter 30.

Docket No. R-00943008: In Re: Pennsylvania Public Utility Commission v. Bell Atlantic-Pennsylvania, Inc. (Investigation of Proposed Promotional Offerings Tariff).

Docket No. M-00940587: In Re: Investigation pursuant to Section 3005 of the Public Utility Code, 66 Pa. C. S. §3005, and the Commission's Opinion and Order at Docket No. P-930715, to establish standards and safeguards for competitive services, with particular emphasis in the areas of cost allocations, cost studies, unbundling, and imputation, and to consider generic issues for future rulemaking.

South Carolina Public Service Commission

Docket No. 90-626-C: In Re: Generic Proceeding to Consider Intrastate Incentive Regulation.

Docket No. 90-321-C: In Re: Petition of Southern Bell Telephone and Telegraph Company for Revisions to its Access Service Tariff Nos. E2 and E16.

Docket No. 88-472-C: In Re: Petition of AT&T of the Southern States, Inc., Requesting the Commission to Initiate an Investigation Concerning the Level and Structure of Intrastate Carrier Common Line (CCL) Access Charges.

Docket No. 92-163-C: In Re: Position of Certain Participating South Carolina Local Exchange Companies for Approval of an Expanded Area Calling (EAC) Plan.

Docket No. 92-182-C: In Re: Application of MCI Telecommunications Corporation, AT&T Communications of the Southern States, Inc., and Sprint Communications Company, L.P., to Provide IntraLATA Telecommunications Services.

Docket No. 95-720-C: In Re: Application of BellSouth Telecommunications, Inc. d/b/a Southern Bell Telephone and Telegraph Company for Approval of an Alternative Regulation Plan.

Tennessee Public Service Commission

Docket No. 90-05953: In Re: Earnings Investigation of South Central Bell Telephone Company.

Docket Nos. 89-11065, 89-11735, 89-12677: AT&T Communications of the South Central States, MCI Telecommunications Corporation, US Sprint Communications Company -- Application for Limited IntraLATA Telecommunications Certificate of Public Convenience and Necessity.

Docket No. 91-07501: South Central Bell Telephone Company's Application to Reflect Changes in its Switched Access Service Tariff to Limit Use of the 700 Access Code.

Public Utility Commission of Texas

Docket No. 12879: Application of Southwestern Bell Telephone Company for Expanded Interconnection for Special Access Services and Switched Transport Services and Unbundling of Special Access DS1 and DS3 Services Pursuant to P. U. C. Subst. R. 23.26.

Virginia State Corporation Commission

Case No. PUC920043: Application of Virginia Metrotel, Inc. for a Certificate of Public Convenience and Necessity to Provide InterLATA Interexchange Telecommunications Services.

Case No. PUC920029: Ex Parte: In the Matter of Evaluating the Experimental Plan for Alternative Regulation of Virginia Telephone Companies.

Case No. PUC930035: Application of Contel of Virginia, Inc. d/b/a GTE Virginia to implement community calling plans in various GTE Virginia exchanges within the Richmond and Lynchburg LATAs.

Case No. PUC930036: Ex Parte: In the Matter of Investigating Telephone Regulatory Methods Pursuant to Virginia Code § 56-235.5, & Etc.

Washington Utilities and Transportation Commission

Docket Nos. UT-941464, UT-941465, UT-950146, and UT-950265 (Consolidated): Washington Utilities and Transportation Commission, Complainant, vs. US West Communications, Inc., Respondent; TCG Seattle and Digital Direct of Seattle, Inc., Complainant, vs. US West Communications, Inc., Respondent; TCG Seattle, Complainant, vs. GTE Northwest Inc., Respondent; Electric Lightwave, Inc., vs. GTE Northwest, Inc., Respondent.

Docket No. UT-950200: In the Matter of the Request of US West Communications, Inc. for an Increase in its Rates and Charges.

Public Service Commission of Wyoming

Docket No. 70000-TR-95-238: In the Matter of the General Rate/Price Case Application of US West Communications, Inc.

Docket No. PSC-96-32: In the Matter of Proposed Rule Regarding Total Service Long Run Incremental Cost (TSLRIC) Studies.

Public Service Commission of the District of Columbia

Formal Case No. 814, Phase IV: In the Matter of the Investigation into the Impact of the AT&T Divestiture and Decisions of the Federal Communications Commission on Bell Atlantic - Washington, D. C. Inc.'s Jurisdictional Rates.

COMMENTS - FEDERAL COMMUNICATIONS COMMISSION

CC Docket No. 92-91: In the Matter of Open Network Architecture Tariffs of Bell Operating Companies.

CC Docket No. 93-162: Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection for Special Access.

CC Docket No. 91-141: Common Carrier Bureau Inquiry into Local Exchange Company Term and Volume Discount Plans for Special Access.

CC Docket No. 94-97: Review of Virtual Expanded Interconnection Service Tariffs.

CC Docket No. 94-128: Open Network Architecture Tariffs of US West Communications, Inc.

CC Docket No. 94-97, Phase II: Investigation of Cost Issues, Virtual Expanded Interconnection Service Tariffs.

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	density range						
	0 - 5	5 - 200	200 - 650	650 - 850	850 - 2550	> 2550	totals
total lines	2,808	139,040	220,599	73,530	692,197	1,033,771	2,161,945
business lines	793	23,549	33,886	15,613	133,966	299,430	507,236
residential lines	1,712	106,477	173,744	51,940	506,958	619,738	1,460,569
special access lines	283	8,407	12,097	5,574	47,826	106,898	181,086
households	1,467	91,264	148,920	44,519	434,524	531,190	1,251,884
buried distribution cable	$ 3,361,001	$ 50,103,181	$ 33,570,895	$ 6,829,032	$ 46,743,536	$ 4,075,044	$ 144,682,689
buried distribution placement	$ 535,260	$ 7,567,090	$ 4,108,363	$ 1,449,181	$ 14,203,991	$ 12,152,686	$ 40,016,571
NID, terminals, splices	$ 108,240	$ 6,314,831	$ 10,230,440	$ 3,147,453	$ 30,421,001	$ 39,393,080	$ 89,615,045
DLC electronics	$ 846,191	$ 21,683,937	$ 29,810,089	$ 7,899,812	$ 65,303,323	$ 76,615,491	$ 202,158,843
total DLC lines	2,808	124,119	179,068	46,531	387,111	452,140	
optical "SAI"	$ 20,600	$ 509,200	$ 535,500	$ 141,600	$ 1,229,800	$ 1,481,800	$ 3,918,500
passive SAI	$ -	$ 32,600	$ 69,400	$ 40,000	$ 434,500	$ 854,600	$ 1,431,100
distribution conduit, w/placement	$ -	$ -	$ -	$ -	$ 43,558,906	##########	$ 302,411,115
distribution pole inv	$ 804,150	$ 11,388,600	$ 6,207,300	$ 1,462,050	$ 11,500,200	$ 23,931,000	$ 55,293,300
aerial distribution cable	$ 3,055,455	$ 45,548,346	$ 30,518,996	$ 6,208,211	$ 33,995,299	$ 45,159,607	$ 167,485,914
underground distribution cable	$ -	$ -	$ -	$ -	$ 8,498,825	$ 22,227,511	$ 30,726,336
aerial feeder cable	$ 214,232	$ 3,335,672	$ 4,911,417	$ 1,802,154	$ 4,758,789	$ 3,799,642	$ 18,821,906
feeder pole investment	$ 200,700	$ 2,184,300	$ 1,654,650	$ 251,100	$ 900,000	$ 703,800	$ 5,894,550
end office switching	$ 537,303	$ 20,179,996	$ 24,585,405	$ 7,968,842	$ 71,620,983	##########	$ 230,698,040
end office wire center	$ 114,736	$ 3,991,400	$ 5,091,392	$ 1,728,124	$ 17,805,827	$ 26,716,077	$ 55,447,356
local tandem switching	$ 4,939	$ 241,619	$ 382,483	$ 127,862	$ 1,201,043	$ 1,798,531	$ 3,756,477
local tandem wire center	$ 1,746	$ 86,476	$ 137,202	$ 45,732	$ 430,514	$ 642,956	$ 1,344,627
OS tandem switching	$ 2,235	$ 109,012	$ 172,423	$ 57,549	$ 540,956	$ 809,111	$ 1,691,286
OS tandem wire center	$ 2,835	$ 140,383	$ 222,731	$ 74,240	$ 698,886	$ 1,043,760	$ 2,182,836
OS trunks	$ 5,426	$ 189,339	$ 272,986	$ 77,457	$ 728,058	$ 771,864	$ 2,044,931
operator position	$ 3,039	$ 150,497	$ 238,778	$ 79,589	$ 749,239	$ 1,118,960	$ 2,340,102
common transport	$ 18,975	$ 673,408	$ 978,664	$ 277,652	$ 2,613,676	$ 2,773,649	$ 7,336,023
dedicated transport	$ 48,555	$ 2,798,146	$ 4,626,174	$ 1,790,995	$ 16,066,113	$ 27,252,980	$ 52,582,963
local direct trunking	$ 11,466	$ 593,578	$ 948,312	$ 310,701	$ 2,940,510	$ 4,250,030	
local tandem trunking	$ 1,356	$ 52,022	$ 75,723	$ 21,109	$ 202,326	$ 208,018	
STP	$ 3,582	$ 139,767	$ 210,698	$ 69,566	$ 648,553	$ 963,043	$ 2,035,210
SCP	$ 5,825	$ 288,443	$ 457,643	$ 152,540	$ 1,435,993	$ 2,144,602	$ 4,485,047
signaling links	$ 1,903	$ 23,949	$ 18,288	$ 4,965	$ 37,171	$ 36,607	$ 122,883
feeder conduit/manhole, w/placement	$ 270,580	$ 3,103,837	$ 2,441,188	$ 1,932,372	$ 98,604,437	##########	$ 320,981,207
underground feeder cable	$ 30,605	$ 426,947	$ 555,919	$ 991,863	$ 38,070,315	$ 68,393,551	
buried feeder placement	$ 227,612	$ 2,374,719	$ 1,682,157	$ 548,859	$ 755,025	$ 3,380,966	
total public telephone	$ 9,723	$ 693,900	$ 1,200,153	$ 530,320	$ 4,578,381	$ 8,542,762	$ 15,555,239
total public lines	20	606	872	402	3,448	7,706	13,054
buried feeder cable	$ 390,017	$ 5,108,708	$ 6,107,561	$ 2,368,603	$ 5,204,071	$ 4,162,409	
NID investment per line	$ 30.00						
terminal and splice investment per line	$ 35.00						
average lines/business location	4						
local DEMs, thousands	24,817,464		local call attempts	5,567,700,000			
intrastate DEMs, thousands	3,747,130		call completion factor	0.70			
interstate DEMs, thousands	8,498,672		intraLATA calls completed	76,986,000			
total DEMs, thousands	37,063,266		interLATA intrastate calls comp	458,660,000			
intraLATA tandem fraction	0.20		interLATA interstate calls comp	970,059,000			
interLATA tandem fraction	0.20		fraction interoffice str shared w/fd	0.25			
interoffice traffic fraction	0.65		trunk port investment, per port	$ 100			
total dedicated access trunks	275,064		signaling port investment, per end	$ 450			
total dedicated transport trunks	373,168		avg D link investment, per link	$ 319			
total common trunks	21,688		business holding time multiplier	1.00			
state	FL		res holding time multiplier	1.00			
company	GTE FLORIDA INC		bus/res local DEMs	1.10			
fraction direct-routed local traffic	0.98		bus/res state DEMs	2.00			
max trunk usage, CCS	27.5		bus/res interstate DEMs	3.00			
average trunk utilization	0.3		total shared feeder/io structure	$ 4,256,345			
local interoffice traffic fraction	0.300		i/o aerial structure fract of total	0.30			
local DEM fraction	0.650						
ISUP msgs/interoffice call	6						
ISUP msg length	25						
TCAP msgs/transaction	2						
TCAP msg length	100						
fraction of calls requiring TCAP	0.10						
average local direct route distance	10						
average intraLATA direct route distance	25						
average direct access route distance	15						
total signaling links	198						
drop investment per line	40						

Cost of Capital Inputs			
Debt fraction		0.45	
Cost of Debt		0.077	**0.035**
Equity fraction		**0.55**	
Cost of Equity		0.119	**0.065**
Overall Cost of Capital			**10.01%**
Weighted equity fraction		**0.65**	
corporate overhead factor		0.100	
other taxes factor		0.050	
operating state and local income tax factor		0.010	
billing/bill inquiry per line per month	$	1.22	
directory listing per line per month	$	0.15	
service order processing fraction of 6623		0.346	
forward-looking network operations factor		0.700	
alternative CO switching factor		0.0269	
alternative circuit equipment factor		0.0153	
EO traffic-sensitive fraction		0.70	
per-line monthly LNP cost	$	0.25	
tandem-routed toll fraction		**0.20**	
tandem-routed local fraction		**0.02**	
interoffice local fraction		**0.65**	
State	***Florida***		
Company	**GTE FLORIDA INC**		
Carrier-carrier customer service, per line per year	$	1.56	
NID expense per line per year	$	3.00	
DS-0/DS-1 crossover		24	
DS-1/DS-3 crossover		*28*	
Switch line circuit offset per DLC line	$	35.00	
Local call completion fraction		**0.70**	
Total local calls attempted		**5,567,700,000**	
Total intraLATA toll calls completed		**76,986,000**	
Total interLATA calls completed			
intrastate		**458,660,000**	
interstate		**970,059,000**	
Total local calls completed		**3,897,390,000**	
Total completed local interoffice calls		**2,006,306,750**	
Total completed local interoffice calls		**0.371**	

economic life and tax inputs		
tax rate		0.40
economic life -- 50 years maximum		
	loop distribution	20
	loop feeder	20
	loop concentrator	10
	end office switching	14.3
	wire center	37
	tandem switching	14.3
	OS investment	8
	transport facilities	19
	STP	14
	SCP	14
	links	19
	public telephones	9
	general support	7

Structure fraction assigned to telephone	aerial	underground	buried
distribution	0.33	0.33	0.33
feeder	0.33	0.33	0.33

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	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
total wire center	$ 17,064	$ 603,281	$ 779,630	$ 264,308	$ 2,708,022	$ 4,062,069	$ 8,434,373
total switching, installed	$ 12,003	$ 435,416	$ 507,682	$ 175,541	$ 1,608,999	$ 2,490,624	$ 5,230,264
total interoffice transmission	$ 690	$ 35,490	$ 57,298	$ 21,148	$ 190,963	$ 306,961	$ 612,550
total pole investment	$ 240,551	$ 3,249,213	$ 1,882,070	$ 410,111	$ 2,968,481	$ 5,897,319	$ 14,647,744
total buried cable	$ 144,342	$ 2,124,596	$ 1,526,858	$ 353,547	$ 1,998,984	$ 316,984	$ 6,465,312
total u/g cable	$ 228	$ 3,181	$ 4,141	$ 7,389	$ 346,919	$ 675,086	$ 1,036,944
total conduit	$ 407	$ 4,665	$ 3,669	$ 2,904	$ 213,676	$ 711,655	$ 936,976
total aerial cable	$ 186,818	$ 2,793,048	$ 2,024,360	$ 457,682	$ 2,214,262	$ 2,968,756	$ 10,644,926
total drop cable	$ 496	$ 28,949	$ 46,900	$ 14,429	$ 139,460	$ 180,591	$ 410,826
total muxes and digital terminals	$ 8,861	$ 227,213	$ 310,932	$ 82,616	$ 684,608	$ 807,123	$ 2,121,354
total common channel signaling	$ 304	$ 12,163	$ 18,470	$ 6,108	$ 57,074	$ 84,580	$ 178,700
Totals	$ 611,764	$ 9,517,215	$ 7,162,011	$ 1,795,783	$ 13,131,449	$ 18,501,748	$ 50,719,970

Notes:
1) Land & Building Factor applied to wire center investment
2) CO Switching Factor applied to common channel signaling
3) interoffice transmission factor applied to muxes & digital terminals

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Distribution Investment							
total wire center							$ -
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment	$ 265,370	$ 3,758,238	$ 2,048,409	$ 482,477	$ 3,795,066	$ 7,897,230	$ 18,246,789
total buried cable	$ 3,537,637	$ 52,600,320	$ 34,926,655	$ 7,307,262	$ 51,430,853	$ 8,085,430	$ 157,888,158
total u/g cable	$ -	$ -	$ -	$ -	$ 8,498,825	$ 22,227,511	$ 30,726,336
total conduit	$ -	$ -	$ -	$ -	$ 14,374,439	$ 85,421,229	$ 99,795,668
total aerial cable	$ 3,055,455	$ 45,548,346	$ 30,518,996	$ 6,208,211	$ 33,995,299	$ 48,159,607	$ 167,485,914
total drop cable	$ 66,609	$ 3,886,050	$ 6,295,656	$ 1,936,894	$ 18,720,616	$ 24,241,895	$ 55,147,720
total muxes and digital terminals							$ -
total NID, terminal and splice	$ 108,240	$ 6,314,831	$ 10,230,440	$ 3,147,453	$ 30,421,001	$ 39,393,080	$ 89,615,045
ROW fees							$ -
TOTAL	$ 7,033,311	$ 112,107,785	$ 84,020,156	$ 19,082,297	$ 161,236,099	$ 235,425,981	$ 618,905,629
	1.14%	18.11%	13.58%	3.08%	26.05%	38.04%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 618,905,629	$618,905,629	$618,905,629	$618,905,629	$618,905,629	$618,905,629	$618,905,629
Accumulated Depreciation		30,945,281	61,890,563	92,835,844	123,781,126	154,726,407	185,671,689
Net Plant		587,960,348	557,015,067	526,069,785	495,124,504	464,179,222	433,233,941
Depreciable Life	20						
Rate of Return	0.100						
Return Amount		58,854,831	55,757,208	52,659,585	49,561,963	46,464,340	43,366,717
Income Tax Rate	0.40						
Income Tax Gross-Up		21,580,105	20,444,310	19,308,515	18,172,720	17,036,925	15,901,130
Total Return		111,380,217	107,146,799	102,913,382	98,679,964	94,446,546	90,213,129
Discount Rate	0.100						
Present Value		713,286,678					
Present Value Factor		8.508					
Levelized Capital Cost		$ 83,839,579	0.135464237				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total switching, installed	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total interoffice transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total pole investment	$ 63,527	$ 899,684	$ 490,368	$ 115,500	$ 908,500	$ 1,890,516	$ 4,368,094
total buried cable	$ 113,124	$ 1,715,243	$ 1,172,844	$ 230,962	$ 1,536,611	$ 107,818	$ 4,876,602
total u/g cable	$ -	$ -	$ -	$ -	$ 15,622	$ 26,601	$ 42,223
total conduit	$ -	$ -	$ -	$ -	$ 21,605	$ 128,391	$ 149,996
total aerial cable	$ 174,577	$ 2,602,461	$ 1,743,740	$ 354,714	$ 1,942,363	$ 2,751,658	$ 9,569,514
total drop cable	$ 496	$ 28,949	$ 46,900	$ 14,429	$ 139,460	$ 180,591	$ 410,826
total muxes and digital terminals	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total NID	$ 4,996	$ 291,454	$ 472,174	$ 145,267	$ 1,404,046	$ 1,818,142	$ 4,136,079
Expense Summary							
Annual Capital Cost	$ 952,762	$ 15,186,596	$ 11,381,726	$ 2,584,969	$ 21,841,725	$ 31,891,801	$ 83,839,579
Network Expenses	$ 356,720	$ 5,537,791	$ 3,926,027	$ 860,872	$ 5,968,208	$ 6,903,717	$ 23,553,334
Total	$ 1,309,482	$ 20,724,386	$ 15,307,753	$ 3,445,840	$ 27,809,933	$ 38,795,517	$ 107,392,912

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	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Loop Concentrator Investment							
total wire center							$ -
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment							$ -
total buried cable							$ -
total u/g cable							$ -
total conduit							$ -
total aerial cable							$ -
total passive SAI	$ -	$ 32,600	$ 69,400	$ 40,000	$ 434,500	$ 854,600	$ 1,431,100
total muxes and digital terminals	$ 866,791	$ 22,193,137	$ 30,345,589	$ 8,041,412	$ 66,533,123	$ 78,097,291	$ 206,077,343
total common channel signaling							
TOTAL	$ 866,791	$ 22,225,737	$ 30,414,989	$ 8,081,412	$ 66,967,623	$ 78,951,891	$ 207,508,443
	0.42%	10.71%	14.66%	3.89%	32.27%	38.05%	100.00%

Cost of Capital

Year		1	2	3	4	5	6
Total Investment	$ 207,508,443	$207,508,443	$207,508,443	$207,508,443	$207,508,443	$207,508,443	$207,508,443
Accumulated Depreciation		20,750,844	41,501,689	62,252,533	83,003,377	103,754,221	124,505,066
Net Plant		186,757,599	166,006,754	145,255,910	124,505,066	103,754,221	83,003,377
Depreciable Life	10						
Rate of Return	0.100						
Return Amount		18,694,436	16,617,276	14,540,117	12,462,957	10,385,798	8,308,638
Income Tax Rate	0.40						
Income Tax Gross-Up		6,854,626	6,093,001	5,331,376	4,569,751	3,808,126	3,046,501
Total Return		46,299,906	43,461,122	40,622,337	37,783,552	34,944,768	32,105,983
Discount Rate	0.100						
Present Value		219,427,520					
Present Value Factor		6.142					
Levelized Capital Cost	$	35,726,161	0.172167264				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total switching, installed	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total interoffice transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total pole investment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total buried cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total u/g cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total conduit	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total aerial cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total drop cable							$ -
total muxes and digital terminals	$ 13,262	$ 339,798	$ 464,805	$ 123,332	$ 1,021,194	$ 1,201,255	$ 3,163,644
total common channel signaling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Expense Summary							
Annual Capital Cost	$ 149,233	$ 3,826,544	$ 5,236,465	$ 1,391,355	$ 11,529,632	$ 13,592,931	$ 35,726,161
Network Expenses	$ 13,262	$ 339,798	$ 464,805	$ 123,332	$ 1,021,194	$ 1,201,255	$ 3,163,644
Total	$ 162,495	$ 4,166,342	$ 5,701,270	$ 1,514,686	$ 12,550,826	$ 14,794,186	$ 38,889,805

Feeder

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Feeder Investment							
total wire center							$ -
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment	$ 22,754	$ 247,646	$ 187,597	$ 28,469	$ 102,038	$ 79,794	$ 668,298
total buried cable	$ 465,129	$ 5,892,366	$ 6,662,693	$ 2,539,727	$ 5,453,229	$ 5,278,128	$ 26,291,271
total u/g cable	$ 30,605	$ 426,947	$ 555,919	$ 991,863	$ 38,070,315	$ 68,393,551	$ 108,469,200
total conduit	$ 86,780	$ 995,455	$ 782,932	$ 619,746	$ 31,624,189	$ 68,835,255	$ 102,944,357
total aerial cable	$ 214,232	$ 3,335,672	$ 4,911,417	$ 1,802,154	$ 4,758,789	$ 3,799,642	$ 18,821,906
total drop cable							$ -
total muxes and digital terminals							$ -
total ROW							$ -
network investment frac							
TOTAL	$ 819,500	$ 10,898,086	$ 13,100,559	$ 5,981,958	$ 80,008,561	$ 146,386,369	$ 257,195,032
	0.32%	4.24%	5.09%	2.33%	31.11%	56.92%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 257,195,032	$257,195,032	$257,195,032	$257,195,032	$257,195,032	$257,195,032	$257,195,032
Accumulated Depreciation		12,859,752	25,719,503	38,579,255	51,439,006	64,298,758	77,158,510
Net Plant		244,335,281	231,475,529	218,615,777	205,756,026	192,896,274	180,036,523
Depreciable Life	20						
Rate of Return	0.100						
Return Amount		24,457,962	23,170,700	21,883,439	20,596,178	19,308,917	18,021,656
Income Tax Rate	0.40						
Income Tax Gross-Up		8,967,919	8,495,923	8,023,928	7,551,932	7,079,936	6,607,940
Total Return		46,285,632	44,526,376	42,767,119	41,007,862	39,248,605	37,489,348
Discount Rate	0.100						
Present Value		296,416,418					
Present Value Factor		8.508					
Levelized Capital Cost	$	34,840,729	0.135464237				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center							$ -
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment	$ 5,447	$ 59,284	$ 44,909	$ 6,815	$ 24,427	$ 19,102	$ 159,984
total buried cable	$ 14,874	$ 192,144	$ 223,735	$ 80,274	$ 162,927	$ 70,383	$ 744,336
total u/g cable	$ 23	$ 385	$ 768	$ 2,506	$ 69,979	$ 81,850	$ 155,511
total conduit	$ 130	$ 1,496	$ 1,177	$ 931	$ 47,532	$ 103,461	$ 154,728
total aerial cable	$ 12,240	$ 190,588	$ 280,620	$ 102,968	$ 271,899	$ 217,097	$ 1,075,413
total drop cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total muxes and digital terminals							$ -
total common channel signaling							$ -
Expense Summary							
Annual Capital Cost	$ 111,013	$ 1,476,301	$ 1,774,657	$ 810,341	$ 10,838,299	$ 19,830,118	$ 34,840,729
Network Expenses	$ 32,715	$ 443,897	$ 551,208	$ 193,495	$ 576,765	$ 491,893	$ 2,289,972
Total	$ 143,728	$ 1,920,197	$ 2,325,865	$ 1,003,836	$ 11,415,063	$ 20,322,011	$ 37,130,700

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
End Office Switching Investment							
total wire center	$ 114,736	$ 3,991,400	$ 5,091,392	$ 1,728,124	$ 17,805,627	$ 26,716,077	$ 55,447,356
total switching, installed	$ 439,026	$ 15,835,826	$ 18,318,031	$ 6,340,263	$ 58,072,099	$ 89,980,614	$ 188,985,858
total interoffice transmission							$ -
total pole investment							$ -
total buried cable							$ -
total u/g cable							$ -
total conduit							$ -
total aerial cable							$ -
total drop cable							$ -
total muxes and digital terminals							$ -
total common channel signaling							$ -
TOTAL	$ 553,762	$ 19,827,226	$ 23,409,423	$ 8,068,387	$ 75,877,726	$ 116,696,691	$ 244,433,214
	0.23%	8.11%	9.58%	3.30%	31.04%	47.74%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 244,433,214	$244,433,214	$244,433,214	$244,433,214	$244,433,214	$244,433,214	$244,433,214
Accumulated Depreciation		15,277,076	30,554,152	45,831,228	61,108,303	76,385,379	91,662,455
Net Plant		229,156,138	213,879,062	198,601,986	183,324,910	168,047,835	152,770,759
Depreciable Life	16						
Rate of Return	0.100						
Return Amount		22,938,529	21,409,294	19,880,059	18,350,824	16,821,588	15,292,353
Income Tax Rate	0.40						
Income Tax Gross-Up		8,410,794	7,850,075	7,289,355	6,728,635	6,167,916	5,607,196
Total Return		46,626,399	44,536,444	42,446,490	40,356,535	38,266,580	36,176,625
Discount Rate	0.100						
Present Value		273,918,096					
Present Value Factor		7.819					
Levelized Capital Cost	$	35,032,133	0.143319858				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	$ 16,409	$ 570,836	$ 728,153	$ 247,150	$ 2,546,499	$ 3,820,840	$ 7,929,888
total switching, installed	$ 11,810	$ 425,984	$ 492,755	$ 170,553	$ 1,562,139	$ 2,420,479	$ 5,083,720
total interoffice transmission	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total pole investment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total buried cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total u/g cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total conduit	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total aerial cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total drop cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total muxes and digital terminals	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total common channel signaling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Expense Summary							
Annual Capital Cost	$ 79,365	$ 2,841,635	$ 3,355,035	$ 1,156,360	$ 10,874,785	$ 16,724,953	$ 35,032,133
Network Expenses	$ 28,219	$ 996,820	$ 1,220,908	$ 417,703	$ 4,108,638	$ 6,241,319	$ 13,013,607
Total	$ 107,584	$ 3,838,455	$ 4,575,943	$ 1,574,063	$ 14,983,423	$ 22,966,272	$ 48,045,741

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Signaling Investment							
total STP	$ 3,582	$ 139,767	$ 210,698	$ 69,566	$ 648,553	$ 963,043	$ 2,035,210
total links	$ 1,903	$ 23,949	$ 18,288	$ 4,965	$ 37,171	$ 36,607	$ 122,883
total SCP	$ 5,825	$ 288,443	$ 457,643	$ 152,540	$ 1,435,993	$ 2,144,602	$ 4,485,047
TOTAL	$ 11,311	$ 452,159	$ 686,629	$ 227,071	$ 2,121,718	$ 3,144,252	$ 6,643,140
	0.17%	6.81%	10.34%	3.42%	31.94%	47.33%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 6,643,140	$6,643,140	$6,643,140	$6,643,140	$6,643,140	$6,643,140	$6,643,140
Accumulated Depreciation		474,510	949,020	1,423,530	1,898,040	2,372,550	2,847,060
Net Plant		6,168,630	5,694,120	5,219,610	4,745,100	4,270,590	3,796,080
Depreciable Life	14						
Rate of Return	0.100						
Return Amount		617,480	569,981	522,483	474,985	427,486	379,988
Income Tax Rate	0.40						
Income Tax Gross-Up		226,409	208,993	191,577	174,161	156,745	139,329
Total Return		1,318,399	1,253,485	1,188,570	1,123,656	1,058,741	993,826
Discount Rate	0.100						
Present Value		7,320,004					
Present Value Factor		7.363					
Levelized Capital Cost		$ 994,205	0.149658824				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total STP	$ 96	$ 3,760	$ 5,668	$ 1,871	$ 17,446	$ 25,906	$ 54,747
total links	$ 55	$ 697	$ 532	$ 145	$ 1,082	$ 1,066	$ 3,578
total SCP	$ 157	$ 7,759	$ 12,311	$ 4,103	$ 38,628	$ 57,690	$ 120,648
Expense Summary							
Annual Capital Cost	$ 1,693	$ 67,670	$ 102,760	$ 33,983	$ 317,534	$ 470,565	$ 994,205
Network Expenses	$ 308	$ 12,216	$ 18,511	$ 6,119	$ 57,157	$ 84,662	$ 178,973
Total	$ 2,001	$ 79,886	$ 121,271	$ 40,102	$ 374,690	$ 555,227	$ 1,173,177

Ded Xport

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Dedicated Transport							
total dedicated transmissio	$ 48,555	$ 2,798,146	$ 4,626,174	$ 1,790,995	$ 16,066,113	$ 27,252,980	$ 52,582,963
TOTAL	$ 48,555	$ 2,798,146	$ 4,626,174	$ 1,790,995	$ 16,066,113	$ 27,252,980	$ 52,582,963
	0.09%	5.32%	8.80%	3.41%	30.56%	51.83%	100.00%

Cost of Capital

Year		1	2	3	4	5	6
Total Investment	$ 52,582,963	$52,582,963	$52,582,963	$52,582,963	$52,582,963	$52,582,963	$52,582,963
Accumulated Depreciation		2,767,524	5,535,049	8,302,573	11,070,098	13,837,622	16,605,146
Net Plant		49,815,439	47,047,915	44,280,390	41,512,866	38,745,342	35,977,817
Depreciable Life	19						
Rate of Return	0.100						
Return Amount		4,986,525	4,709,496	4,432,467	4,155,438	3,878,409	3,601,379
Income Tax Rate	0.40						
Income Tax Gross-Up		1,828,393	1,726,815	1,625,238	1,523,661	1,422,083	1,320,506
Total Return		9,582,443	9,203,836	8,825,229	8,446,623	8,068,016	7,689,410
Discount Rate	0.100						
Present Value		60,215,708					
Present Value Factor		8.359					
Levelized Capital Cost		$ 7,203,368	0.136990531				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total interoffice transmissio	$ 1,414	$ 81,472	$ 134,698	$ 52,148	$ 467,790	$ 793,513	$ 1,531,035
Expense Summary							
Annual Capital Cost	$ 6,652	$ 383,319	$ 633,742	$ 245,349	$ 2,200,905	$ 3,733,400	$ 7,203,368
Network Expenses	$ 1,414	$ 81,472	$ 134,698	$ 52,148	$ 467,790	$ 793,513	$ 1,531,035
Total	$ 8,065	$ 464,792	$ 768,440	$ 297,497	$ 2,668,695	$ 4,526,914	$ 8,734,404

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Common Transport							
total common transmission	$ 18,975	$ 673,408	$ 978,664	$ 277,652	$ 2,613,676	$ 2,773,649	$ 7,336,023
TOTAL	$ 18,975	$ 673,408	$ 978,664	$ 277,652	$ 2,613,676	$ 2,773,649	$ 7,336,023
	0.26%	9.18%	13.34%	3.78%	35.63%	37.81%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 7,336,023	$7,336,023	$7,336,023	$7,336,023	$7,336,023	$7,336,023	$7,336,023
Accumulated Depreciation		386,106	772,213	1,158,319	1,544,426	1,930,532	2,316,639
Net Plant		6,949,917	6,563,810	6,177,704	5,791,597	5,405,491	5,019,384
Depreciable Life	19						
Rate of Return	0.100						
Return Amount		695,687	657,037	618,388	579,739	541,090	502,440
Income Tax Rate	0.400						
Income Tax Gross-Up		255,085	240,914	226,742	212,571	198,400	184,228
Total Return		1,336,878	1,284,058	1,231,237	1,178,416	1,125,596	1,072,775
Discount Rate	0.100						
Present Value		8,400,892					
Present Value Factor		8.359					
Levelized Capital Cost		$ 1,004,966	0.136990531				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total interoffice transmissio	$ 552	$ 19,607	$ 28,495	$ 8,084	$ 76,101	$ 80,759	$ 213,600
Expense Summary							
Annual Capital Cost	$ 2,599	$ 92,250	$ 134,068	$ 38,036	$ 358,049	$ 379,964	$ 1,004,966
Network Expenses	$ 552	$ 19,607	$ 28,495	$ 8,084	$ 76,101	$ 80,759	$ 213,600
Total	$ 3,152	$ 111,858	$ 162,563	$ 46,120	$ 434,150	$ 460,723	$ 1,218,566

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Tandem Switching Investment							
total wire center	$ 1,746	$ 86,476	$ 137,202	$ 45,732	$ 430,514	$ 642,956	$ 1,344,627
total switching	$ 4,939	$ 241,619	$ 382,483	$ 127,862	$ 1,201,043	$ 1,798,531	$ 3,756,477
TOTAL	$ 6,685	$ 328,095	$ 519,686	$ 173,594	$ 1,631,557	$ 2,441,487	$ 5,101,104
	0.13%	6.43%	10.19%	3.40%	31.98%	47.86%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 5,101,104	$5,101,104	$5,101,104	$5,101,104	$5,101,104	$5,101,104	$5,101,104
Accumulated Depreciation		300,065	600,130	900,195	1,200,260	1,500,325	1,800,390
Net Plant		4,801,039	4,500,974	4,200,909	3,900,844	3,600,780	3,300,715
Depreciable Life	17						
Rate of Return	*0.100*						
Return Amount		480,584	450,548	420,511	390,475	360,438	330,402
Income Tax Rate	0.40						
Income Tax Gross-Up		176,214	165,201	154,187	143,174	132,161	121,147
Total Return		956,863	915,813	874,763	833,713	792,664	751,614
Discount Rate	0.100						
Present Value		5,760,413					
Present Value Factor		8.017					
Levelized Capital Cost	$	718,561	0.14086388				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	$ 250	$ 12,367	$ 19,622	$ 6,540	$ 61,571	$ 91,953	$ 192,304
total switching	$ 133	$ 6,500	$ 10,289	$ 3,439	$ 32,308	$ 48,380	$ 101,049
Expense Summary							
Annual Capital Cost	$ 942	$ 46,217	$ 73,205	$ 24,453	$ 229,827	$ 343,917	$ 718,561
Network Expenses	$ 383	$ 18,867	$ 29,911	$ 9,980	$ 93,879	$ 140,334	$ 293,353
Total	$ 1,324	$ 65,084	$ 103,116	$ 34,433	$ 323,706	$ 484,251	$ 1,011,914

Operator

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Operator Systems Investment							
total wire center	$ 2,835	$ 140,383	$ 222,731	$ 74,240	$ 698,886	$ 1,043,760	$ 2,182,836
total switching	$ 2,235	$ 109,012	$ 172,423	$ 57,549	$ 540,956	$ 809,111	$ 1,691,286
total transport	$ 5,426	$ 189,339	$ 272,986	$ 77,457	$ 728,058	$ 771,664	$ 2,044,931
total operator positions	$ 3,039	$ 150,497	$ 238,778	$ 79,589	$ 749,239	$ 1,118,960	$ 2,340,102
TOTAL	$ 13,536	$ 589,231	$ 906,918	$ 288,835	$ 2,717,139	$ 3,743,495	$ 8,259,154
	0.16%	7.13%	10.98%	3.50%	32.90%	45.33%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 8,259,154	$8,259,154	$8,259,154	$8,259,154	$8,259,154	$8,259,154	$8,259,154
Accumulated Depreciation		1,032,394	2,064,789	3,097,183	4,129,577	5,161,971	6,194,366
Net Plant		7,226,760	6,194,366	5,161,971	4,129,577	3,097,183	2,064,789
Depreciable Life	8						
Rate of Return	0.100						
Return Amount		723,399	620,056	516,713	413,371	310,028	206,685
Income Tax Rate	0.40						
Income Tax Gross-Up		265,246	227,354	189,462	151,569	113,677	75,785
Total Return		2,021,039	1,879,804	1,738,569	1,597,334	1,456,099	1,314,864
Discount Rate	0.100						
Present Value		8,515,534					
Present Value Factor		5.333					
Levelized Capital Cost	$	1,596,767	0.193333006				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	$ 405	$ 20,077	$ 31,854	$ 10,618	$ 99,952	$ 149,275	$ 312,182
total switching	$ 60	$ 2,932	$ 4,638	$ 1,548	$ 14,552	$ 21,765	$ 45,496
total transport	$ 158	$ 5,513	$ 7,948	$ 2,255	$ 21,199	$ 22,468	$ 59,541
total operator positions	$ 818	$ 40,487	$ 64,237	$ 21,411	$ 201,562	$ 301,025	$ 629,539
Expense Summary							
Annual Capital Cost	$ 2,617	$ 113,918	$ 175,337	$ 55,841	$ 525,313	$ 723,741	$ 1,596,767
Network Expenses	$ 1,441	$ 69,009	$ 108,677	$ 35,832	$ 337,264	$ 494,533	$ 1,046,758
Total	$ 4,058	$ 182,927	$ 284,015	$ 91,673	$ 862,577	$ 1,218,274	$ 2,643,525

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Public Telephone Investment							
total wire center							$ -
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment							$ -
total buried cable							$ -
total u/g cable							$ -
total conduit							$ -
total aerial cable							$ -
total drop cable							$ -
total muxes and digital terminals							$ -
total common channel signaling							$ -
public telephone equipmen	$ 9,723	$ 693,900	$ 1,200,153	$ 530,320	$ 4,578,381	$ 8,542,762	$ 15,555,239
TOTAL	$ 9,723	$ 693,900	$ 1,200,153	$ 530,320	$ 4,578,381	$ 8,542,762	$ 15,555,239
	0.06%	4.46%	7.72%	3.41%	29.43%	54.92%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 15,555,239	$15,555,239	$15,555,239	$15,555,239	$15,555,239	$15,555,239	$15,555,239
Accumulated Depreciation		1,728,360	3,456,720	5,185,080	6,913,439	8,641,799	10,370,159
Net Plant		13,826,879	12,098,519	10,370,159	8,641,799	6,913,439	5,185,080
Depreciable Life	9						
Rate of Return	0.100						
Return Amount		1,384,071	1,211,062	1,038,053	865,044	692,035	519,026
Income Tax Rate	0.40						
Income Tax Gross-Up		507,493	444,056	380,619	317,183	253,746	190,310
Total Return		3,619,923	3,383,478	3,147,032	2,910,587	2,674,141	2,437,696
Discount Rate	0.100						
Present Value		16,249,446					
Present Value Factor		5.757					
Levelized Capital Cost		$ 2,822,684	0.181461961				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total public telephone eqpt	$ 2,563	$ 182,892	$ 316,325	$ 139,777	$ 1,206,727	$ 2,251,621	$ 4,099,905
total switching, installed							$ -
total interoffice transmission							$ -
total pole investment							$ -
total buried cable							$ -
total u/g cable							$ -
total conduit							$ -
total aerial cable							$ -
total drop cable							$ -
total muxes and digital terminals							$ -
total common channel signaling							$ -
Expense Summary							
Annual Capital Cost	$ 1,764	$ 125,916	$ 217,782	$ 96,233	$ 830,802	$ 1,550,186	$ 2,822,684
Network Expenses	$ 2,563	$ 182,892	$ 316,325	$ 139,777	$ 1,206,727	$ 2,251,621	$ 4,099,905
Total	$ 4,327	$ 308,808	$ 534,107	$ 236,010	$ 2,037,529	$ 3,801,808	$ 6,922,589

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals	
Network-Related Expenses								
Distribution								
Annual Capital Cost	$ 952,762	$ 15,186,596	$ 11,381,726	$ 2,584,969	$ 21,841,725	$ 31,891,801	$ 83,839,579	
Network Expenses	$ 356,720	$ 5,537,791	$ 3,926,027	$ 860,872	$ 5,968,208	$ 6,903,717	$ 23,553,334	
Direct expense	$ 1,309,482	$ 20,724,386	$ 15,307,753	$ 3,445,840	$ 27,809,933	$ 38,795,517	$ 107,392,912	42.42%
Investment	$ 7,033,311	$ 112,107,785	$ 84,020,156	$ 19,082,297	$ 161,236,099	$ 235,425,981	$ 618,905,629	
Support expenses	$ 422,907	$ 7,755,390	$ 6,551,527	$ 1,580,536	$ 12,809,367	$ 18,256,375	$ 47,376,102	
Subtotal, with misc spt	$ 1,732,389	$ 28,479,777	$ 21,859,280	$ 5,026,376	$ 40,619,300	$ 57,051,893	$ 154,769,014	
Total, with var overhead	$ 1,905,627	$ 31,327,754	$ 24,045,208	$ 5,529,014	$ 44,681,230	$ 62,757,082	$ 170,245,915	
Concentrator								
Annual Capital Cost	$ 149,233	$ 3,826,544	$ 5,236,465	$ 1,391,355	$ 11,529,632	$ 13,592,931	$ 35,726,161	
Network Expenses	$ 13,262	$ 339,798	$ 464,805	$ 123,332	$ 1,021,194	$ 1,201,255	$ 3,163,644	
Direct expense	$ 162,495	$ 4,166,342	$ 5,701,270	$ 1,514,686	$ 12,550,826	$ 14,794,186	$ 38,889,805	15.36%
Investment	$ 866,791	$ 22,225,737	$ 30,414,989	$ 8,081,412	$ 66,967,623	$ 78,951,891	$ 207,508,443	
Support expenses	$ 52,479	$ 1,559,111	$ 2,440,072	$ 694,755	$ 5,780,961	$ 6,961,841	$ 17,489,219	
Subtotal, with misc spt	$ 214,974	$ 5,725,453	$ 8,141,342	$ 2,209,441	$ 18,331,787	$ 21,756,027	$ 56,379,024	
Total, with var overhead	$ 236,471	$ 6,297,998	$ 8,955,476	$ 2,430,386	$ 20,164,966	$ 23,931,630	$ 62,016,926	
Feeder								
Annual Capital Cost	$ 111,013	$ 1,476,301	$ 1,774,657	$ 810,341	$ 10,838,299	$ 19,830,118	$ 34,840,729	
Network Expenses	$ 32,715	$ 443,897	$ 551,208	$ 193,495	$ 576,765	$ 491,893	$ 2,289,972	
Direct expense	$ 143,728	$ 1,920,197	$ 2,325,865	$ 1,003,836	$ 11,415,063	$ 20,322,011	$ 37,130,700	14.67%
Investment	$ 819,500	$ 10,898,086	$ 13,100,559	$ 5,981,958	$ 80,008,561	$ 146,386,369	$ 257,195,032	
Support expenses	$ 46,418	$ 718,568	$ 995,441	$ 460,439	$ 5,257,824	$ 9,563,122	$ 17,041,812	
Subtotal, with misc spt	$ 190,146	$ 2,638,765	$ 3,321,307	$ 1,464,275	$ 16,672,887	$ 29,885,132	$ 54,172,512	
Total, with var overhead	$ 209,160	$ 2,902,642	$ 3,653,437	$ 1,610,702	$ 18,340,176	$ 32,873,645	$ 59,589,763	
End Office Switching								
Annual Capital Cost	$ 79,365	$ 2,841,635	$ 3,355,035	$ 1,156,360	$ 10,874,785	$ 16,724,953	$ 35,032,133	
Network Expenses	$ 28,219	$ 996,820	$ 1,220,908	$ 417,703	$ 4,108,638	$ 6,241,319	$ 13,013,607	
Direct expense	$ 107,584	$ 3,838,455	$ 4,575,943	$ 1,574,063	$ 14,983,423	$ 22,966,272	$ 48,045,741	18.98%
Investment	$ 553,762	$ 19,827,226	$ 23,409,423	$ 8,068,387	$ 75,877,726	$ 116,696,691	$ 244,433,214	
Support expenses	$ 49,813	$ 2,149,357	$ 3,031,358	$ 1,075,891	$ 10,264,775	$ 15,795,733	$ 32,366,928	
Subtotal, with misc spt	$ 157,397	$ 5,987,812	$ 7,607,301	$ 2,649,955	$ 25,248,198	$ 38,762,005	$ 80,412,669	
Total, with var overhead	$ 173,137	$ 6,586,594	$ 8,368,031	$ 2,914,950	$ 27,773,018	$ 42,638,206	$ 88,453,936	
Signaling								
Annual Capital Cost	$ 1,693	$ 67,670	$ 102,760	$ 33,983	$ 317,534	$ 470,565	$ 994,205	
Network Expenses	$ 308	$ 12,216	$ 18,511	$ 6,119	$ 57,157	$ 84,662	$ 178,973	
Direct expense	$ 2,001	$ 79,886	$ 121,271	$ 40,102	$ 374,690	$ 555,227	$ 1,173,177	0.46%
Investment	$ 11,311	$ 452,159	$ 686,629	$ 227,071	$ 2,121,718	$ 3,144,252	$ 6,643,140	
Support expenses	$ 927	$ 44,732	$ 80,337	$ 27,411	$ 256,691	$ 381,874	$ 791,971	
Subtotal, with misc spt	$ 2,928	$ 124,618	$ 201,607	$ 67,513	$ 631,382	$ 937,100	$ 1,965,148	
Total, with var overhead	$ 3,221	$ 137,080	$ 221,768	$ 74,264	$ 694,520	$ 1,030,810	$ 2,161,663	
Dedicated Transport								
Annual Capital Cost	$ 6,652	$ 383,319	$ 633,742	$ 245,349	$ 2,200,905	$ 3,733,400	$ 7,203,368	
Network Expenses	$ 1,414	$ 81,472	$ 134,698	$ 52,148	$ 467,790	$ 793,513	$ 1,531,035	
Direct expense	$ 8,065	$ 464,792	$ 768,440	$ 297,497	$ 2,668,695	$ 4,526,914	$ 8,734,404	3.45%
Investment	$ 48,555	$ 2,798,146	$ 4,626,174	$ 1,790,995	$ 16,066,113	$ 27,252,980	$ 52,582,963	
Support expenses	$ 3,734	$ 260,262	$ 509,057	$ 203,343	$ 1,828,258	$ 3,113,519	$ 5,918,173	
Subtotal, with misc spt	$ 11,800	$ 725,054	$ 1,277,498	$ 500,840	$ 4,496,953	$ 7,640,432	$ 14,652,577	
Total, with var overhead	$ 12,980	$ 797,559	$ 1,405,248	$ 550,924	$ 4,946,649	$ 8,404,475	$ 16,117,834	
Common Transport								
Annual Capital Cost	$ 2,599	$ 92,250	$ 134,068	$ 38,036	$ 358,049	$ 379,964	$ 1,004,966	
Network Expenses	$ 552	$ 19,607	$ 28,495	$ 8,084	$ 76,101	$ 80,759	$ 213,600	
Direct expense	$ 3,152	$ 111,858	$ 162,563	$ 46,120	$ 434,150	$ 460,723	$ 1,218,566	0.48%
Investment	$ 18,975	$ 673,408	$ 978,664	$ 277,652	$ 2,613,676	$ 2,773,649	$ 7,336,023	
Support expenses	$ 1,459	$ 62,635	$ 107,691	$ 31,524	$ 297,426	$ 316,876	$ 817,610	
Subtotal, with misc spt	$ 4,611	$ 174,493	$ 270,254	$ 77,644	$ 731,576	$ 777,598	$ 2,036,176	
Total, with var overhead	$ 5,072	$ 191,942	$ 297,279	$ 85,408	$ 804,733	$ 855,358	$ 2,239,793	

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	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals	
Tandem Switching								
Annual Capital Cost	$ 942	$ 46,217	$ 73,205	$ 24,453	$ 229,827	$ 343,917	$ 718,561	
Network Expenses	$ 383	$ 18,867	$ 29,911	$ 9,980	$ 93,879	$ 140,334	$ 293,353	
Direct expense	$ 1,324	$ 65,084	$ 103,116	$ 34,433	$ 323,706	$ 484,251	$ 1,011,914	0.40%
Investment	$ 6,685	$ 328,095	$ 519,686	$ 173,594	$ 1,631,557	$ 2,441,487	$ 5,101,104	
Support expenses	$ 613	$ 36,444	$ 68,310	$ 23,535	$ 221,763	$ 333,058	$ 683,723	
Subtotal, with misc spt	$ 1,937	$ 101,528	$ 171,426	$ 57,968	$ 545,469	$ 817,309	$ 1,695,638	
Total, with var overhead	$ 2,131	$ 111,681	$ 188,568	$ 63,765	$ 600,016	$ 899,040	$ 1,865,202	
Operator Systems								
Annual Capital Cost	$ 2,617	$ 113,918	$ 175,337	$ 55,841	$ 525,313	$ 723,741	$ 1,596,767	
Network Expenses	$ 1,441	$ 69,009	$ 108,677	$ 35,832	$ 337,264	$ 494,533	$ 1,046,758	
Direct expense	$ 4,058	$ 182,927	$ 284,015	$ 91,673	$ 862,577	$ 1,218,274	$ 2,643,525	1.04%
Investment	$ 13,536	$ 589,231	$ 906,918	$ 288,835	$ 2,717,139	$ 3,743,495	$ 8,259,154	
Support expenses	$ 1,311	$ 68,454	$ 121,555	$ 42,049	$ 397,306	$ 573,295	$ 1,203,970	
Subtotal, with misc spt	$ 5,369	$ 251,382	$ 405,569	$ 133,722	$ 1,259,883	$ 1,791,569	$ 3,847,494	
Total, with var overhead	$ 5,906	$ 276,520	$ 446,126	$ 147,094	$ 1,385,871	$ 1,970,726	$ 4,232,244	
Public Telephone								
Annual Capital Cost	$ 1,764	$ 125,916	$ 217,782	$ 96,233	$ 830,802	$ 1,550,186	$ 2,822,684	
Network Expenses	$ 2,563	$ 182,892	$ 316,325	$ 139,777	$ 1,206,727	$ 2,251,621	$ 4,099,905	
Direct expense	$ 4,327	$ 308,808	$ 534,107	$ 236,010	$ 2,037,529	$ 3,801,808	$ 6,922,589	2.73%
Investment	$ 9,723	$ 693,900	$ 1,200,153	$ 530,320	$ 4,578,381	$ 8,542,762	$ 15,555,239	
Support expenses	$ 1,397	$ 115,561	$ 228,591	$ 108,253	$ 938,494	$ 1,789,053	$ 3,181,349	
Subtotal, with misc spt	$ 5,724	$ 424,369	$ 762,698	$ 344,263	$ 2,976,023	$ 5,590,861	$ 10,103,938	
Total, with var overhead	$ 6,297	$ 466,806	$ 838,968	$ 378,689	$ 3,273,625	$ 6,149,947	$ 11,114,332	
Totals								
Annual Capital Cost	$ 1,308,640	$ 24,160,366	$ 23,084,778	$ 6,436,921	$ 59,546,871	$ 89,241,576	$ 203,779,152	
Network Expenses	$ 437,577	$ 7,702,369	$ 6,799,566	$ 1,847,341	$ 13,913,722	$ 18,683,605	$ 49,384,180	
Total	$ 1,746,217	$ 31,862,735	$ 29,884,344	$ 8,284,262	$ 73,460,593	$ 107,925,182	$ 253,163,332	100.00%
Investment	$ 9,382,148	$ 170,593,773	$ 159,863,350	$ 44,502,523	$ 413,818,592	$ 625,359,557	$ 1,423,519,942	
Supporting Network Expenses								
Capital Cost - Genl Support	$ 94,405	$ 1,612,517	$ 1,418,917	$ 398,927	$ 4,396,311	$ 8,233,668	$ 16,154,745	
Network Operations	$ 58,396	$ 2,891,588	$ 4,587,779	$ 1,529,184	$ 14,395,544	$ 21,499,209	$ 44,961,700	
Network Support	$ (943)	$ (17,301)	$ (17,171)	$ (4,625)	$ (41,599)	$ (60,483)	$ (142,123)	
Other Taxes	$ 135,341	$ 2,565,220	$ 2,500,085	$ 707,946	$ 6,285,987	$ 9,298,178	$ 21,492,757	
Misc Expenses	$ 276,754	$ 4,871,512	$ 4,300,517	$ 1,168,386	$ 8,800,002	$ 11,816,807	$ 31,233,977	
Subtotal	$ 563,953	$ 11,923,535	$ 12,790,125	$ 3,799,819	$ 33,836,245	$ 50,787,379	$ 113,701,057	
Carrier-carrier customer svc	$ 4,380	$ 216,902	$ 344,135	$ 114,706	$ 1,079,828	$ 1,612,683	$ 3,372,634	
Interoffice/Switching Net Ops	$ 17,105	$ 846,980	$ 1,343,813	$ 447,916	$ 4,216,621	$ 6,297,366	$ 13,169,800	
Interoffice/Sw Exp	$ 122,127	$ 4,560,074	$ 5,731,333	$ 1,992,216	$ 18,784,665	$ 28,993,386	$ 60,183,801	
Total Network Costs	$ 2,327,275	$ 44,633,250	$ 44,018,282	$ 12,531,996	$ 111,513,458	$ 165,009,927	$ 380,034,189	
Other costs								
Operating taxes and uncollectibles	$ 135,341	$ 2,565,220	$ 2,500,085	$ 707,946	$ 6,285,987	$ 9,298,178	$ 21,492,757	
USF calculations								
Capital cost	$ 1,262,482	$ 22,285,140	$ 20,551,788	$ 5,527,552	$ 51,179,417	$ 75,979,126	$ 176,785,506	
Network expenses	$ 419,930	$ 6,936,100	$ 5,701,945	$ 1,437,119	$ 10,114,194	$ 12,458,198	$ 37,067,487	
unbundled network expenses	$ 437,577	$ 7,702,369	$ 6,799,566	$ 1,847,341	$ 13,913,722	$ 18,683,605	$ 49,384,180	
USF/unbundled expenses	96.0%	90.1%	83.9%	77.8%	72.7%	66.7%	75.1%	
USF/unbundled capital cost	96.5%	92.2%	89.0%	85.9%	85.9%	85.1%	86.8%	
Capital cost -- gen spt	$ 91,075	$ 1,487,360	$ 1,263,226	$ 342,569	$ 3,778,546	$ 7,010,038	$ 13,972,815	
loop	$ 87,602	$ 1,369,009	$ 1,129,450	$ 296,245	$ 3,262,426	$ 6,033,328	$ 12,178,060	

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		0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
	EO switching	$ 3,321	$ 111,556	$ 123,741	$ 43,043	$ 479,393	$ 912,059	$ 1,673,112
	signaling	$ 20	$ 573	$ 753	$ 247	$ 2,695	$ 4,860	$ 9,150
	transport	$ 132	$ 6,223	$ 9,282	$ 3,034	$ 34,032	$ 59,791	$ 112,493
Network operations		$ 72,456	$ 3,366,637	$ 4,974,084	$ 1,538,064	$ 13,529,597	$ 18,534,711	$ 42,015,549
	loop	$ 69,694	$ 3,098,748	$ 4,447,330	$ 1,330,078	$ 11,681,559	$ 15,952,265	$ 36,579,673
	EO switching	$ 2,642	$ 252,507	$ 487,242	$ 193,252	$ 1,716,531	$ 2,411,507	$ 5,063,681
	signaling	$ 16	$ 1,297	$ 2,965	$ 1,111	$ 9,651	$ 12,851	$ 27,891
	transport	$ 105	$ 14,085	$ 36,547	$ 13,624	$ 121,856	$ 158,088	$ 344,305
Network support		$ (943)	$ (17,301)	$ (17,171)	$ (4,625)	$ (41,599)	$ (60,483)	$ (142,123)
	loop	$ (907)	$ (15,925)	$ (15,353)	$ (3,999)	$ (35,917)	$ (52,056)	$ (124,157)
	EO switching	$ (34)	$ (1,298)	$ (1,682)	$ (581)	$ (5,278)	$ (7,869)	$ (16,742)
	signaling	$ (0)	$ (7)	$ (10)	$ (3)	$ (30)	$ (42)	$ (92)
	transport	$ (1)	$ (72)	$ (126)	$ (41)	$ (375)	$ (516)	$ (1,131)
Misc expenses		$ 265,593	$ 4,386,870	$ 3,606,305	$ 908,934	$ 6,396,917	$ 7,879,428	$ 23,444,047
	loop	$ 255,465	$ 4,037,799	$ 3,224,398	$ 786,023	$ 5,523,148	$ 6,781,585	$ 20,608,418
	EO switching	$ 9,684	$ 329,027	$ 353,260	$ 114,204	$ 811,592	$ 1,025,174	$ 2,642,940
	signaling	$ 60	$ 1,690	$ 2,150	$ 656	$ 4,563	$ 5,463	$ 14,582
	transport	$ 384	$ 18,353	$ 26,497	$ 8,051	$ 57,615	$ 67,206	$ 178,107
USF investment ratios								
	loop	96.2%	92.0%	89.4%	86.5%	86.3%	86.1%	
	EO switching	3.6%	7.5%	9.8%	12.6%	12.7%	13.0%	
	signaling	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	
	transport	0.1%	0.4%	0.7%	0.9%	0.9%	0.9%	
total USF investment		$ 9,065,285	$ 157,786,994	$ 142,641,388	$ 38,328,697	$ 356,971,865	$ 535,355,479	

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Basic local service

monthly costs per line

Florida

GTE FLORIDA INC

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Weighted Average	
Network costs								
Loop	$ 71.87	$ 25.27	$ 14.49	$ 11.33	$ 10.38	$ 9.88	$ 11.63	
Port	$ 1.14	$ 1.14	$ 1.14	$ 1.14	$ 1.14	$ 1.14	$ 1.14	
End office usage	$ 1.23	$ 1.23	$ 1.23	$ 1.23	$ 1.23	$ 1.23	$ 1.23	
Signaling	$ 0.02	$ 0.02	$ 0.02	$ 0.02	$ 0.02	$ 0.02	$ 0.02	
Transport	$ 0.03	$ 0.03	$ 0.03	$ 0.03	$ 0.03	$ 0.03	$ 0.03	
Billing/bill inquiries	$ 1.46	$ 1.46	$ 1.46	$ 1.46	$ 1.46	$ 1.46	$ 1.46	
Directory listing	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.18	
LNP expense (when available)	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	$ 0.30	
Total monthly cost per line (assumes LNP available)	$ 76.23	$ 29.63	$ 18.85	$ 15.69	$ 14.74	$ 14.24	$ 16.20 wtd by hh	
Total lines	2,808	139,040	220,599	73,530	692,197	1,033,771	2,161,945	
Total households	1,467	91,264	148,920	44,519	434,524	531,190	1,251,884	
Annual Subsidy @ $20.00	$ 989,817	$ 10,541,313	0	0	0	0	$ 11,531,130	

Module release date:		8/9/96
Assumed direct monthly per-line costs:		
billing/bill inquiries	$	1.22
directory listing	$	0.15
local number portability	$	0.25

COST OF NETWORK ELEMENTS

Florida GTE FLORIDA INC

A. Loop elements

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Loop Distribution (including NID)							
Annual Cost	$ 1,905,627	$ 31,327,754	$ 24,045,208	$ 5,529,014	$ 44,681,230	$ 62,757,082	$ 170,245,915
Unit Cost/month	$ 56.55	$ 18.78	$ 9.08	$ 6.27	$ 5.38	$ 5.06	$ 6.56
Loop Concentration							
Annual Cost	$ 236,471	$ 6,297,998	$ 8,955,476	$ 2,430,386	$ 20,164,966	$ 23,931,630	$ 62,016,926
Unit Cost/month	$ 7.02	$ 3.77	$ 3.38	$ 2.75	$ 2.43	$ 1.93	$ 2.39
Loop Feeder							
Annual Cost	$ 209,160	$ 2,902,642	$ 3,653,437	$ 1,610,702	$ 18,340,176	$ 32,873,645	$ 59,589,763
Unit Cost/month	$ 6.21	$ 1.74	$ 1.38	$ 1.83	$ 2.21	$ 2.65	$ 2.30
Total Loop							
Annual Cost	$ 2,351,259	$ 40,528,394	$ 36,654,122	$ 9,570,101	$ 83,186,371	$ 119,562,357	$ 291,852,605
Unit Cost/month	$ 69.78	$ 24.29	$ 13.85	$ 10.85	$ 10.01	$ 9.64	$ 11.25
Total lines	2,808	139,040	220,599	73,530	692,197	1,033,771	2,161,945
Total lines served by DLC	2,808	124,119	179,068	46,531	387,111	452,140	1,191,777

	Annual Cost	Units		Unit Cost	
End office switching	$ 88,453,936				
1. Port	$ 26,536,181	1,980,859	switched lines	$ 1.12	per line/month
2. Usage	$ 61,917,755	30,377,499,190	minutes	$ 0.0020	per minute
Signaling network elements	$ 2,161,663				
1. Links	$ 39,986	198	links	$ 16.83	per link per month
2. STP	$ 662,253	20,457,319,278	TCAP + ISUP messages	$ 0.00003	per signaling message
3. SCP	$ 1,459,424	1,414,681,000	TCAP messages	$ 0.00103	per signaling message
Transport network elements					
1. Dedicated	$ 16,117,834	373,168	trunks	$ 3.60	per DS-0 equivalent/month
Switched	$ 8,296,377	192,082		$ 0.00036	per minute
Special	$ 7,821,457	181,086			
2. Common	$ 2,239,793	2,671,241,519	minutes	$ 0.00086	per minute per leg (orig or term)
3. Tandem switch	$ 1,865,202	2,506,345,147	minutes	$ 0.0007	per minute
Operator systems	$ 4,232,244				
Total	$ 406,923,276				
Total cost of switched network elements	$ 15.76	per line/month			

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Intrastate Toll DEMs	3,747,129,748					
Interstate Toll DEMs	8,498,672,303					
				10,044	trk-min/mo	
				interLATA ded. trunks		98,023
				end office trk port inv	$	28,614,013
Common Transport MOU						
Local	222,081,109	w/o OS usage				
Intrastate Toll	749,425,950					
Interstate Toll	1,699,734,461					
	2,671,241,519					
Intrastate IntraLATA Calls	76,986,000	14.37%	SOCCC message counts			
Intrastate InterLATA Calls	458,660,000	85.63%				
	535,646,000					
		trunk port usage	44,968,112,483			
Calculation of EO Usage						
Local DEMs, incl OS	24,817,463,805	67.0%	of total DEMs			
Intraoffice Local DEMs	13,371,533,333					
Intraoffice Local Actual Min	6,685,766,666		Dedicated Transport MOU			
Interoffice Local Actual Min	11,445,930,473	per end	Local, w/o OS	5,440,987,165		
Intrastate Toll Actual Min	3,747,129,748		IntraLATA Toll	215,423,269		
Interstate Toll Actual Min	8,498,672,303		InterLATA Toll	11,814,955,513		
	30,377,499,190			17,471,365,947		
Tandem Switch MOU			Dedicated Trunk-SW	144,951		

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Loops percent	0.13%	6.44%	10.23%	3.40%	32.05%	47.75%	100.00%
Loops	2,788	138,434	219,727	73,128	688,750	1,026,065	2,148,891

	interconnected at end office	tandem	wtd average
Local interconnection	$ 0.0021	$ 0.0037	n/a
IXC switched access	$ 0.0024	$ 0.0040	$ 0.0028

per 800 attempt (TCAP)	$	0.0021
	$	0.0002
ISUP cost/transaction	$	0.0002
ISUP cost/completion	$	0.0003
IXC switched access MOU/comp		8.19
ISUP cost/min	$	0.0000
D link per month	$	8.65
DS-1 per month	$	86
DS-3 per month	$	2,419

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	wtd average
NID cost per month	$ 0.48	$ 0.59	$ 0.61	$ 0.58	$ 0.59	$ 0.50	$ 0.55

trunk port costs		
per trunk port (DS-0)	$	3.90
per trunk port minute	$	0.00057
total EO usage per minute	$	0.00204
trk port/min	$	0.00057
other	$	0.00147

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Florida

Hatfield Model Unbundled Network Element Summary

	Element	Unit Definition	Unit Cost
1.	Network Interface Device	per line-per month	$ 0.55
2.	Loop Distribution	per line-per month	$ 6.01
3.	Loop Concentrator	per line-per month	$ 2.39
4.	Loop Feeder	per line-per month	$ 2.30
5.	End Office Switching		
	Port	per line-per month	$ 1.12
	Usage	per minute	$ 0.002
6.	Signaling Links "A"	per link-per month	$ 16.83
	Signaling Links "D"	per link-per month	$ 8.65
7.	Signal Transfer Point	per message	$ 0.00003
8.	Signal Control Point	per message	$ 0.00103
9.	Common Transport	per minute	$ 0.00086
10.	Dedicated Transport	per DS0 - per month	$ 3.60
11.	Tandem Switching	per minute	$ 0.0007
12.	Operator Systems		$ 0.178