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August 21, 1996

960833-TP

Ms. Blanca S. Bayó
Director, Records & Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

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Re: Docket No. 960846-TP

Dear Ms. Bayó:

On behalf of MCI Telecommunications Corporation and MCImetro Access Transmission Services, Inc. (MCI), I have enclosed for filing in the above docket the original and 15 copies of the testimony of Don J. Wood and Don Price.

By copy of this letter this document has been provided to the parties on the attached service list.

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Very truly yours,

Richard D. Melson

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cc: Parties of Record

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was furnished to the following parties by hand delivery this 21st day of August, 1996.

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960833-TP

DIRECT TESTIMONY OF DON J. WOOD

ON BEHALF OF MCI

DOCKET NO. [redacted]-TP

AUGUST 21, 1996

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 Manager of Regulatory Analysis for the Southern Division. In this capacity I was responsible for the development and implementation of regulatory policy for operations in the southern U. S. 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 have been asked by MCI Telecommunications Corporation ("MCI") to describe the methodology that MCI believes should be used for accurately determining the relevant costs of unbundled network elements to be provided by BellSouth Telecommunications, Inc. ("BST") pursuant to the Federal Telecommunications Act of 1996. I will also describe the results of applying this methodology 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 MCI 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

specifically. Section II describes how the model used to develop these costs operates, and Section III identifies the 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 BST. 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, 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) to develop an estimate of the cost of basic exchange telephone service that is the subject of universal service funding mechanisms. Complete documentation describing the operation of the model in detail is being developed and can be made available upon request.

The HM derives some of its inputs and methods from version 1 of the BCM Plus model, a successor to the Benchmark Cost Model ("BCM"), which was originally developed by US WEST, NYNEX, MCI, and the local services operation of Sprint (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).

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 second version, referred to as the Hatfield Model V.2.2, Release 1

was then developed to estimate costs for unbundled network elements only. 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.

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 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. YOU STATED THAT THE HATFIELD MODEL CALCULATES 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 THE FCC'S 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 was necessary 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).

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

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.

Definition of increment to be studied total demand. The FCC states that "the increment that forms the basis for a TELRIC study shall be the entire quantity of the network element provided, and that "all costs associated with

providing the element shall be included in the incremental cost" (para. 690). The HM studies an increment equal to the entire quantity of the network element, both as the incumbent uses the network element to provide its own retail services and as it provides that network element to other carriers on an unbundled basis. All costs that an efficient incumbent LEC would incur to provide the network element are included.

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 signalling.

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, 696). 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.

Inclusion of specific types of cost and application of principle of cost causation. The FCC states that 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), and indicates that "costs must be attributed on a cost-causative basis. Costs are causally related to the network element being provided if the costs are incurred as a direct result of providing the network elements, or can be avoided, in the long run, when the company ceases to provide them" (para. 691). 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 uses cost-causative principles to identify forward-looking costs with specific network elements. It

includes in the cost of network elements all the costs that the FCC specifically discussed in its order as being part of the direct cost of network elements. Specifically, the HM includes all "investment costs and expenses related to primary plant used to provide that element" (para. 682), and attributes "incremental costs of shared facilities and operations...to specific elements to the greatest extent possible" (para. 682). The HM specifically attributes "the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switched and tandem switching...to specific elements in reasonable proportions" (para. 682). For both dedicated and shared investments, the HM includes "the forward-looking costs of capital (debt and equity) needed to support investments required to produce a given element" (para. 691).

The FCC's rules require that overhead costs be included to the extent that they vary with the output of particular network elements (despite their accounting classification), and thus are part of the TELRIC of those elements. The FCC also requires, to the extent that there are any such overhead costs that are common to several wholesale elements, or to wholesale and other functions, that the prices of of network elements include "a reasonable share of common costs." The procedure of estimating the overhead costs of a wholesale-only carrier, which is what Hatfield does by adding the 10% markup, satisfies the FCC requirements. While statistical evidence and a growing literature on activity-based accounting systems suggest that many of the costs that have traditionally been considered "overhead" costs should actually be considered service-specific or element-specific costs, the Hatfield

Model method for treating overhead costs renders any precise distinction between element-specific and "common" overhead costs unnecessary. Insofar as the 10% markup captures all of the relevant overhead costs, it includes any element-specific costs and a reasonable share of any "common" overhead costs. This approach ensures that each network element recovers at least its "reasonable" share of such common costs, to the extent that they exist. Moreover, if regulators set prices for network elements equal to the costs that the Hatfield Model reports for each element, these prices would allow a firm that is engaged solely in providing network elements on a wholesale basis (with no retail functions) to recover all of its economic costs of doing business, including a reasonable profit, but no more. From this vantage point also, the Hatfield approach lies well within the bounds of reasonableness.

In conclusion, the Hatfield Model complies with the detailed explanation of the cost methodology adopted by the FCC and the results of the Model should be used to establish rates for unbundled network elements in Florida.

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 (See WUTC Docket No. UT-950200, Fifteenth Supplemental Order, page 82):

> 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.

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.

BCM-PLUS, together with the Hatfield Model, improve on 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 recurring 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 and reports the annual cost for each unbundled network element. The module requires as inputs appropriate assumptions regarding the cost of capital (cost of debt, cost of equity, and debt/equity ratio); 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. YOU PREVIOUSLY REFERRED TO HATFIELD MODEL VERSION 2.2, RELEASE 1. PLEASE SUMMARIZE THE KEY DIFFERENCES BETWEEN HATFIELD MODEL VERSION 2.2 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,
- 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,
- specifies 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, MCI 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 to develop costs for use in this proceeding. In summary, the results of MCI's analysis are as follows:

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	$ 6.32
3.	Loop Concentrator	per line-per month	$ 2.51
4.	Loop Feeder	per line-per month	$ 2.30
5.	End Office Switching		
	Port	per line-per month	$ 1.00
	Usage	per minute	$ 0.0016
6.	Signaling Links	per link-per month	$ 18.14
7.	Signal Transfer Point	per message	$ 0.00005
8.	Signal Control Point	per message	$ 0.00078
9.	Common Transport	per minute	$ 0.00073
10.	Dedicated Transport	per DS0 - per month	$ 4.17
11.	Tandem Switching	per minute	$ 0.0012

12.	Operator Systems	$ 7,320,597

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Vita of Don J. Wood
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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 COMMISSIONS:

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.

<u>Louisiana Public Service Commission</u>

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.

	density range						
	0 - 5	5 - 200	200 - 650	650 - 850	850 - 2550	> 2550	totals
total lines	9,391	344,682	480,863	202,704	1,578,133	3,259,031	5,874,804
business lines	1,314	61,223	93,382	42,586	368,242	1,002,114	1,568,861
residential lines	7,726	267,121	362,562	148,755	1,111,628	1,989,508	3,887,300
special access lines	348	16,207	24,721	11,274	97,483	265,286	415,319
households	6,434	222,450	301,930	123,878	925,727	1,656,797	3,237,216
buried distribution cable	$ 12,188,180	$122,076,955	$ 73,207,452	$ 20,518,330	$114,092,458	$ 13,572,434	$355,655,809
buried distribution placement	$ 2,345,196	$ 22,396,030	$ 8,685,400	$ 3,800,388	$ 31,408,692	$ 30,408,372	$ 99,044,078
NID, terminals, splices	$ 439,567	$ 15,454,132	$ 21,142,904	$ 8,744,085	$ 66,156,185	$123,976,159	$235,913,031
DLC electronics	$ 2,711,358	$ 56,180,706	$ 64,162,483	$ 26,166,999	$175,028,619	$241,048,950	$565,299,115
total DLC lines	8,742	318,276	382,700	157,493	1,047,915	1,460,786	
optical "SAI"	$ 86,800	$ 1,414,800	$ 1,168,900	$ 436,800	$ 3,036,700	$ 3,794,300	$ 9,938,300
passive SAI	$ 2,400	$ 59,000	$ 141,500	$ 69,400	$ 762,200	$ 2,193,600	$ 3,228,100
distribution conduit, w/placement	$ -	$ -	$ -	$ -	$ 96,319,990	$647,698,315	$744,018,305
distribution pole inv	$ 3,524,850	$ 33,687,450	$ 13,114,350	$ 3,835,350	$ 25,414,200	$ 59,853,600	$139,429,800
aerial distribution cable	$ 11,080,164	$110,979,050	$ 66,552,229	$ 18,653,028	$ 82,976,333	$160,401,489	$450,642,292
underground distribution cable	$ -	$ -	$ -	$ -	$ 20,744,083	$ 74,031,457	$ 94,775,540
aerial feeder cable	$ 905,313	$ 9,464,658	$ 10,248,850	$ 2,911,179	$ 8,972,464	$ 11,196,064	$ 43,698,529
feeder pole investment	$ 898,200	$ 6,999,300	$ 3,685,950	$ 747,900	$ 2,337,300	$ 1,743,750	$ 16,412,400
end office switching	$ 2,081,030	$ 52,296,005	$ 54,511,197	$ 21,299,580	$162,065,752	$322,657,186	$614,910,750
end office wire center	$ 450,492	$ 10,336,263	$ 12,164,635	$ 4,811,823	$ 42,470,651	$ 96,161,416	$166,395,281
local tandem switching	$ 21,405	$ 784,447	$ 1,094,928	$ 462,578	$ 3,623,649	$ 7,542,477	$ 13,529,484
local tandem wire center	$ 11,656	$ 427,800	$ 596,819	$ 251,585	$ 1,958,688	$ 4,044,923	$ 7,291,470
OS tandem switching	$ 4,926	$ 178,101	$ 247,917	$ 104,727	$ 822,039	$ 1,715,744	$ 3,073,454
OS tandem wire center	$ 3,440	$ 126,269	$ 176,157	$ 74,258	$ 578,125	$ 1,193,897	$ 2,152,146
OS trunks	$ 17,728	$ 532,835	$ 585,767	$ 201,126	$ 1,460,502	$ 2,272,977	$ 5,070,935
operator position	$ 11,349	$ 416,529	$ 581,096	$ 244,956	$ 1,907,086	$ 3,938,357	$ 7,099,373
common transport	$ 50,330	$ 1,551,055	$ 1,711,315	$ 588,398	$ 4,277,257	$ 6,658,763	$ 14,837,117
dedicated transport	$ 186,215	$ 7,443,431	$ 10,863,923	$ 4,748,901	$ 39,741,659	$ 89,826,149	$152,810,278
local direct trunking	$ 60,598	$ 2,228,348	$ 3,116,526	$ 1,316,574	$ 10,309,954	$ 21,207,158	
local tandem trunking	$ 6,012	$ 186,803	$ 206,236	$ 71,110	$ 511,164	$ 781,094	
STP	$ 22,862	$ 752,287	$ 1,020,378	$ 427,038	$ 3,320,781	$ 6,839,946	$ 12,383,292
SCP	$ 20,166	$ 740,142	$ 1,032,565	$ 435,270	$ 3,388,754	$ 6,998,178	$ 12,615,075
signaling links	$ 4,791	$ 59,066	$ 39,834	$ 12,338	$ 90,055	$ 154,623	$ 360,708
feeder conduit/manhole, w/placement	$ 1,215,048	$ 9,776,810	$ 5,455,816	$ 6,172,320	$262,495,223	$534,577,364	$819,692,581
underground feeder cable	$ 128,846	$ 1,253,794	$ 1,175,309	$ 1,767,727	$ 71,779,716	$201,529,160	
buried feeder placement	$ 1,018,610	$ 7,740,107	$ 3,829,458	$ 1,849,321	$ 2,027,725	$ 8,409,438	
total public telephone	$ 3,817	$ 173,706	$ 268,336	$ 122,185	$ 1,098,707	$ 2,681,956	$ 4,348,706
total public lines	3	130	198	90	780	2,123	3,324
buried feeder cable	$ 1,645,480	$ 15,321,342	$ 13,040,939	$ 4,502,347	$ 9,791,361	$ 12,274,181	
NID investment per line	$ 30.00						
terminal and splice investment per line	$ 35.00						
average lines/business location	4						
local DEMs, thousands	84,865,532		local call attempts	21,826,509,000			
intrastate DEMs, thousands	9,984,286		call completion factor	0.70			
interstate DEMs, thousands	19,195,718		intraLATA calls completed	663,660,000			
total DEMs, thousands	114,045,535		interLATA intrastate calls comp	580,388,000			
intraLATA tandem fraction	0.20		interLATA interstate calls comp	1,817,766,000			
interLATA tandem fraction	0.20		fraction interoffice str shared w/fdr	0.25			
interoffice traffic fraction	0.65		trunk port investment, per port	$ 100			
total dedicated access trunks	600,341		signaling port investment, per end	$ 450			
total dedicated transport trunks	998,146		avg D link investment, per link	$ 220			
total common trunks	54,290		business holding time multiplier	1.00			
state	FL		res holding time multiplier	1.00			
company	BELLSOUTH TELECOMM INC - FL		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	$ 11,782,225			
local interoffice traffic fraction	0.374		i/o aerial structure fract of total	0.30			
local DEM fraction	0.724						
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 distanc	25						
average direct access route distance	15						
total signaling links	512						
drop investment per line	40						

Inputs

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		0.027	
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	**BELLSOUTH TELECOMM INC - FL**		
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		**21,826,509,000**	
Total intraLATA toll calls completed		**663,660,000**	
Total interLATA calls completed			
intrastate		**580,388,000**	
interstate		**1,817,766,000**	
Total local calls completed		**15,278,556,300**	
Total completed local interoffice calls		**8,859,426,695**	
Total completed local interoffice calls		**0.483**	

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

Actuals for 1995 ($000s)

		Investments		Expenses	alculated Factor	
Plant-Specific Operations Expenses						
TPIS - General Support						
2111	Land	$ 52,233	$	-		
2112	Motor Vehicles	$ 62,253	$	1,565	0.025	
2113	Aircraft	$ -	$	1,609		
2114	Special Purpose Vehicles	$ 4	$	-		
2115	Garage Work Equipment	$ 1,825	$	149	0.082	
2116	Other Work Equipment	$ 91,882	$	488	0.005	
2121	Buildings	$ 730,472	$	74,156	0.102	Land & Bldg Exp Applied to Bldgs
2122	Furniture	$ 10,947	$	5,891	0.538	
2123	Office Equipment	$ 33,135	$	6,581	0.199	
2124	General Purpose Computers	$ 390,235	$	88,223	0.226	
2110	Total Land & Support Assets	$ 1,372,986	$	178,662	0.130	
TPIS - Central Office Switching						
2211	Analog Electronic Switching	$ 390,499	$	19,552	0.050	
2212	Digital Electronic Switching	$ 1,272,535	$	84,534	0.066	0.0269 NET CO Switch Factor
2210	Total Central Office Switching	$ 1,663,034	$	104,086	0.063	
2220	Operator Systems	$ 43,571	$	3,297	0.076	
TPIS - Central Office Transmission						
2231	Satellite & Earth Station Facilities					
2231	Other Radio Facilities					
2231	Radio Systems					
2232	Circuit Equipment	$ 2,094,287	$	48,614	0.0232	0.0153 alternative factor
2230	Total Central Office Transmission	$ 2,094,287	$	48,614	0.0232	
TPIS - Information Orig/Term						
2311	Station Apparatus	$ 363	$	673		
2321	Customer Premises Wiring	$ -	$	-		
2341	Large Private Branch Exchange	$ 8,780	$	(43)		
2351	Public Telephone Terminal Equipment	$ 60,196	$	15,627	0.260	
2362	Other Terminal Equipment	$ 102,454	$	79,658	0.778	
2310	Total Information Orig/Term	$ 171,793	$	95,915	0.558	
TPIS - Cable & Wire Facilities						
2411	Poles	$ 137,698	$	7,097	0.052	
2421	Aerial Cable	$ 730,392	$	69,888	0.096	
2422	Underground Cable	$ 927,419	$	20,226	0.022	
2423	Buried Cable	$ 2,413,728	$	168,323	0.070	
2424	Submarine Cable					
2425	Deep Sea Cable					
2426	Intrabuilding Network Cable					
2431	Aerial Wire					
2441	Conduit Systems	$ 697,061	$	3,860	0.006	
2410	Total Cable & Wire Facilities	$ 4,906,298	$	269,394	0.055	0.0496253
240	Total TPIS (before amortizable assets)	$ 10,251,969	$	699,968	0.068	

Plant Non-Specific Operations Expenses

		Expenses		Investment	Factor	
6512	Provisioning Expenses	$ 833	$	10,251,969	0.000	
6531	Power Expenses	$ 12,022	$	10,251,969	0.001	4.27% all
6532	Network Administration	$ 21,166	$	10,251,969	0.002	7.52% switching, interoffice
6533	Testing	$ 73,961	$	10,251,969	0.007	26.29% all
6534	Plant Operations Administration	$ 86,506	$	10,251,969	0.008	30.75% all
6535	Engineering	$ 86,804	$	10,251,969	0.008	30.86% all
6540	Access Expense					
6530	Total Network Operations Expenses	$ 281,292	$	10,251,969	0.027	per line network operations (=total ARMIS 6530/total lines)
						total lines (from net. invest. inputs) 5,874,804
						annual net ops per line $ 47.88

Network Support Factor Calculation

		Expenses	Cable & Wire Inv	Factor
2112	Motor Vehicles	$ 1,565		
2113	Aircraft	$ 1,609		
2114	Special Purpose Vehicles	$ -		
2115	Garage Work Equipment	$ 149		
2116	Other Work Equipment	$ 488		
	Total Network Support	$ 3,811	$ 4,906,298	0.000777

Customer Operations Expenses

		Expenses			Net Revenues	Factor
6611	Product Management *	$ 33,295	$ 0.4723	$	1,788,874	0.01861
6612	Sales *	$ 74,054	$ 1.0504	$	1,788,874	0.04140
6613	Product Advertising	$ 34,017		$	1,788,874	0.01902
6610	Total Marketing Expenses	$ 141,366				0.07903
6621	Call Completion Service	$ 17,871		$	1,788,874	0.00999
6622	Number Services	$ 58,783	$ 0.8338	$	1,788,874	0.03286
6623	Customer Services	$ 288,265	$ 4.0890	$	1,788,874	0.16114
6620	Total Services Expenses	$ 357,165	$ 5.61			0.20399
	Billing/bill inquiry (per line/month)	$ 1.22				
	Service order processing fraction of 6623	0.027				
	Directory listing (per line/month)	$ 0.15				
700	Total Customer Operations Expenses	$ 498,531		$	1,788,874	0.27868

Corporate Operations Expenses

		Expenses	Revenues	Factor
6711	Executive	$ 10,710	$ 1,788,874	0.005987
6712	Planning	$ 4,232	$ 1,788,874	0.002366
6710	Total Executive & Planning	$ 14,942	$ 1,788,874	0.008353
6721	Accounting & Finance	$ 29,733	$ 1,788,874	0.016621
6722	External Relations	$ 25,795	$ 1,788,874	0.014420
6723	Human Resources	$ 43,048	$ 1,788,874	0.024064
6724	Information Management	$ 157,437	$ 1,788,874	0.088009
6725	Legal	$ 14,821	$ 1,788,874	0.008285
6726	Procurement	$ 8,849	$ 1,788,874	0.004947
6727	Research & Development	$ 8,156	$ 1,788,874	0.004559
6728	Other General & Administrative	$ 149,299	$ 1,788,874	0.083460
6720	Total General & Administrative	$ 437,138	$ 1,788,874	0.244365
710	Total Corporate Operations Expense	$ 452,080	$ 1,788,874	0.10
720	Total Operating Expenses	$ 1,932,704		
	note: does not include dep/amort			

Misc Expenses Calculation	2122 Furniture	2123 Ofc Equpt	2124 GP Comptr
Investment	$ 10,947	$ 33,135	$ 390,235
Investment/TPIS	0.00107	0.00323	0.03806
Expense	$ 5,891	$ 6,581	$ 88,223
Expense Factor	0.53814	0.19861	0.22608
Model TPIS	$ 4,739,747	$ 4,739,747	$ 4,739,747
Calculated Investment	$ 5,061	$ 15,319	$ 180,416
Calculated Expense	$ 2,724	$ 3,043	$ 40,788
Subtotal ($s)	$ 46,553,871		

	2351 Pub Tel Eqpt	
Investment	$ 60,196	
Expense	$ 15,627	c141,c130
Expense Factor	0.259602	
Model Investment	$ 3,733,822,777	
Calculated Expense	$ 969,307,737	
Subtotal ($s)	$ -	
Total Misc Expense	$ 46,553,871	

Other Taxes & Uncollectibles Calculation

		Expenses	Net Revenues	Factor
7230	Operating State & Local Income Tax	$ 36,257	$ (221,261)	0.0100
7240	Operating Other Taxes	$ 188,016	$ (221,261)	0.0500
5300	Uncollectible Revenues	$ 47,906	$ 1,788,874	0.0268
	retail			0.0201
	wholesale			0.0044

Ratio of Net Plant to TPIS

TPIS	$ 10,251,969
Net Plant	$ 10,251,969
Ratio	100.00%
Model Investment	$ 4,739,747
Model % of Net Plant	46%
Model % of TPIS	46%

Network Expense

	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	$ 47,265	$ 1,105,564	$ 1,313,399	$ 521,565	$ 4,569,064	$ 10,293,941	$ 17,850,800
total switching, installed	$ 48,457	$ 1,132,998	$ 1,142,162	$ 439,939	$ 3,492,546	$ 7,553,194	$ 13,809,297
total interoffice transmission	$ 5,491	$ 208,786	$ 291,905	$ 123,893	$ 1,021,797	$ 2,239,673	$ 3,891,544
total pole investment	$ 227,965	$ 2,097,008	$ 865,893	$ 236,222	$ 1,430,321	$ 3,174,748	$ 8,032,158
total buried cable	$ 964,700	$ 9,581,566	$ 6,014,591	$ 1,744,834	$ 8,639,124	$ 1,802,432	$ 28,747,247
total u/g cable	$ 2,810	$ 27,344	$ 25,632	$ 38,552	$ 2,017,843	$ 6,009,677	$ 8,121,859
total conduit	$ 6,728	$ 54,139	$ 30,212	$ 34,179	$ 1,986,952	$ 6,546,893	$ 8,659,104
total aerial cable	$ 1,146,838	$ 11,524,729	$ 7,348,758	$ 2,063,384	$ 8,798,176	$ 16,419,416	$ 47,301,300
total drop cable	$ 5,899	$ 207,408	$ 283,756	$ 117,353	$ 887,874	$ 1,663,868	$ 3,166,158
total muxes and digital termin	$ 65,008	$ 1,338,315	$ 1,519,801	$ 619,156	$ 4,151,065	$ 5,734,386	$ 13,427,731
total common channel signali	$ 1,286	$ 41,735	$ 56,296	$ 23,528	$ 182,909	$ 376,405	$ 682,159
Totals	$ 2,522,449	$ 27,319,593	$ 18,892,405	$ 5,962,607	$ 37,177,672	$ 61,814,633	$ 153,689,358

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

Actual 1995 Revenue

			% of total
Interstate Access			
5081 End User	$	266,050	8.83%
5082 Switched Access	$	436,895	14.51%
5083 Special Access	$	92,625	3.08%
Total Inter Access	$	795,570	26.42%
State Access Revenue			
5084 End User	$	-	0.00%
5084 Switched Access	$	-	0.00%
5084 Special Access	$	284,333	9.44%
Total State Access	$	284,333	9.44%
Total Access Revenue	$	1,079,903	35.86%
Long Distance Network Revenue			
5100 Interstate Message	$	-	0.00%
5100 Intrastate Message	$	-	0.00%
5100 Interstate Calling Plan	$	-	0.00%
5100 Intrastate Calling Plan	$	-	0.00%
Total LD Msg Revenue	$	192,968	6.41%
Unidirectional LD Revenue			
5110 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	44,069	1.46%
LD Private Network Revenue			
5120 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	52,467	1.74%
Other Long Distance Revenue			
5160 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	2,538	0.08%
Total Long Distance Network Rev			
Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total	$	292,042	9.70%

Actual Revenue

Basic Local Service			
5001 Basic Area	$	1,020,084	33.87%
5002 Optional Extended Area	$	14,013	0.47%
5003 Cellular Mobile	$	-	0.00%
5004 Other Mobile Svcs	$	926	0.03%
Total Basic Local Service	$	1,035,023	34.37%
Public Telephone Revenue			
5010 Local Public Msgs	$	-	0.00%
Universal Public Phone	$	-	0.00%
Public Exchange - IX Carrier	$	-	0.00%
Credit Card Coinless	$	-	0.00%
Public Exchange - CPE	$	-	0.00%
Semi-Public Msgs	$	-	0.00%
Other Public Phone Revenue	$	-	0.00%
Total Public Phone Revenue	$	79,251	2.63%
Local Private Line Revenue			
5040 Interstate	$	-	0.00%
Intrastate	$	-	0.00%
Total Private Line	$	64,341	2.14%
Customer Premises Revenue			
5050 Station Apparatus	$	-	0.00%
Customer Premises Wiring	$	-	0.00%
Total Customer Premises	$	4,923	0.16%
Other Local Exchange Revenue			
5060 Central Office Features	$	-	0.00%
Information Transport	$	-	0.00%
Directory Assistance	$	-	0.00%
Intercept Services	$	-	0.00%
Other Loc Exchg	$	-	0.00%
Total Other	$	456,181	15.15%
Total Local Network Service Revenue			
Interstate	$	-	0.00%
Intrastate	$	1,639,719	54.45%
Total Revenue	$	3,011,664	100.00%

Calculation of Investment in General Support Items

	Calculated Investment ($) (from sheet '95 Actuals)
2122 Furniture	5,061,078
2123 Office Equipment	15,319,157
2124 General Purpose Comp	180,415,609
	$ 200,795,844

Return, Depreciation, & Income Tax

	Year	1	2	3	4	5	6	7	8
Total Investment	$ 200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844
Accumulated Depreciation		28,685,121	57,370,241	86,055,362	114,740,482	143,425,603	172,110,723	200,795,844	229,480,964
Net Plant		172,110,723	143,425,603	114,740,482	86,055,362	57,370,241	28,685,121	0	-28,685,121
Depreciable Life	7								
Rate of Return	0.100								
Return Amount		17,228,283	14,356,903	11,485,522	8,614,142	5,742,761	2,871,381	0	-2,871,381
Income Tax Rate	0.40								
Income Tax Gross-Up		6,317,037	5,264,198	4,211,358	3,158,519	2,105,679	1,052,840	0	-1,052,840
Total Return		52,230,441	48,306,221	44,382,001	40,457,781	36,533,561	32,609,341	28,685,121	0
Discount Rate	0.100								
Present Value		204,133,949							
Present Value Factor		4.867							
Levelized Capital Cost		$ 41,944,042							
CapCost % of Investment	20.89%								

9	10	11	12	13	14	15	16	17	18	19
$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844
258,166,085	286,851,205	315,536,326	344,221,446	372,906,567	401,591,688	430,276,808	458,961,929	487,647,049	516,332,170	545,017,290
-57,370,241	-86,055,362	-114,740,482	-143,425,603	-172,110,723	-200,795,844	-229,480,964	-258,166,085	-286,851,205	-315,536,326	-344,221,446
-5,742,761	-8,614,142	-11,485,522	-14,356,903	-17,228,283	-20,099,664	-22,971,045	-25,842,425	-28,713,806	-31,585,186	-34,456,567
-2,105,679	-3,158,519	-4,211,358	-5,264,198	-6,317,037	-7,369,877	-8,422,716	-9,475,556	-10,528,395	-11,581,235	-12,634,074
0	0	0	0	0	0	0	0	0	0	0

20	21	22	23	24	25	26	27	28	29	30
$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844
573,702,411	602,387,531	631,072,652	659,757,772	688,442,893	717,128,014	745,813,134	774,498,255	803,183,375	831,868,496	860,553,616
-372,906,567	-401,591,688	-430,276,808	-458,961,929	-487,647,049	-516,332,170	-545,017,290	-573,702,411	-602,387,531	-631,072,652	-659,757,772
-37,327,947	-40,199,328	-43,070,708	-45,942,089	-48,813,470	-51,684,850	-54,556,231	-57,427,611	-60,298,992	-63,170,372	-66,041,753
-13,686,914	-14,739,754	-15,792,593	-16,845,433	-17,898,272	-18,951,112	-20,003,951	-21,056,791	-22,109,630	-23,162,470	-24,215,309
0	0	0	0	0	0	0	0	0	0	0

31	32	33	34	35	36	37	38	39	40	41	42
$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844
889,238,737	917,923,857	946,608,978	975,294,098	1,003,979,219	1,032,664,339	1,061,349,460	1,090,034,581	1,118,719,701	1,147,404,822	1,176,089,942	1,204,775,063
-688,442,893	-717,128,014	-745,813,134	-774,498,255	-803,183,375	-831,868,496	-860,553,616	-889,238,737	-917,923,857	-946,608,978	-975,294,098	-1,003,979,219
-68,913,134	-71,784,514	-74,655,895	-77,527,275	-80,398,656	-83,270,036	-86,141,417	-89,012,798	-91,884,178	-94,755,559	-97,626,939	-100,498,320
-25,268,149	-26,320,989	-27,373,828	-28,426,668	-29,479,507	-30,532,347	-31,585,186	-32,638,026	-33,690,865	-34,743,705	-35,796,544	-36,849,384
0	0	0	0	0	0	0	0	0	0	0	0

43	44	45	46	47	48	49	50
$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844	$200,795,844
1,233,460,183	1,262,145,304	1,290,830,424	1,319,515,545	1,348,200,665	1,376,885,786	1,405,570,907	1,434,256,027
-1,032,664,339	-1,061,349,460	-1,090,034,581	-1,118,719,701	-1,147,404,822	-1,176,089,942	-1,204,775,063	-1,233,460,183
-103,369,700	-106,241,081	-109,112,462	-111,983,842	-114,855,223	-117,726,603	-120,597,984	-123,469,364
-37,902,223	-38,955,063	-40,007,903	-41,060,742	-42,113,582	-43,166,421	-44,219,261	-45,272,100
0	0	0	0	0	0	0	0

	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	$ 3,510,627	$ 37,459,644	$ 24,533,592	$ 7,561,101	$ 50,828,580	$ 93,714,356	$ 217,607,900	
Network Expenses	$ 1,873,468	$ 19,517,204	$ 12,483,540	$ 3,609,618	$ 19,416,367	$ 25,898,761	$ 82,798,956	
Direct expense	$ 5,384,093	$ 56,976,848	$ 37,017,132	$ 11,170,718	$ 70,244,948	$ 119,613,117	$ 300,406,856	44.27%
Investment	$ 25,915,528	$ 276,527,920	$ 181,107,519	$ 55,816,212	$ 375,217,709	$ 691,801,454	$ 1,606,386,342	
Support expenses	$ 1,422,681	$ 19,433,124	$ 15,921,665	$ 5,293,412	$ 34,433,128	$ 63,509,358	$ 140,013,368	
Subtotal, with misc spt	$ 6,806,774	$ 76,409,971	$ 52,938,797	$ 16,464,131	$ 104,678,076	$ 183,122,475	$ 440,420,224	
Total, with var overhead	$ 7,487,451	$ 84,050,969	$ 58,232,677	$ 18,110,544	$ 115,145,884	$ 201,434,722	$ 484,462,246	
Concentrator								
Annual Capital Cost	$ 482,164	$ 9,926,219	$ 11,272,287	$ 4,592,252	$ 30,788,245	$ 42,531,658	$ 99,592,825	
Network Expenses	$ 42,864	$ 882,498	$ 1,002,656	$ 408,552	$ 2,741,022	$ 3,793,942	$ 8,871,534	
Direct expense	$ 525,028	$ 10,808,716	$ 12,274,943	$ 5,000,803	$ 33,529,267	$ 46,325,600	$ 108,464,359	15.98%
Investment	$ 2,800,558	$ 57,654,506	$ 65,472,883	$ 26,673,199	$ 178,827,519	$ 247,036,850	$ 578,465,515	
Support expenses	$ 138,732	$ 3,686,535	$ 5,279,651	$ 2,369,706	$ 16,435,595	$ 24,596,877	$ 52,507,096	
Subtotal, with misc spt	$ 663,761	$ 14,495,251	$ 17,554,594	$ 7,370,509	$ 49,964,862	$ 70,922,477	$ 160,971,454	
Total, with var overhead	$ 730,137	$ 15,944,776	$ 19,310,053	$ 8,107,560	$ 54,961,348	$ 78,014,725	$ 177,068,600	
Feeder								
Annual Capital Cost	$ 475,139	$ 4,405,888	$ 3,779,029	$ 1,605,526	$ 23,768,945	$ 54,051,063	$ 88,085,591	
Network Expenses	$ 205,514	$ 1,989,748	$ 1,887,795	$ 593,352	$ 2,232,743	$ 3,278,946	$ 10,188,098	
Direct expense	$ 680,653	$ 6,395,636	$ 5,666,824	$ 2,198,877	$ 26,001,689	$ 57,330,010	$ 98,273,689	14.48%
Investment	$ 3,507,485	$ 32,524,365	$ 27,896,879	$ 11,852,025	$ 175,462,883	$ 399,006,149	$ 650,249,786	
Support expenses	$ 179,854	$ 2,181,363	$ 2,437,392	$ 1,041,971	$ 12,745,678	$ 30,439,739	$ 49,025,998	
Subtotal, with misc spt	$ 860,507	$ 8,576,999	$ 8,104,217	$ 3,240,848	$ 38,747,367	$ 87,769,749	$ 147,299,687	
Total, with var overhead	$ 946,558	$ 9,434,699	$ 8,914,638	$ 3,564,933	$ 42,622,103	$ 96,546,724	$ 162,029,656	
End Office Switching								
Annual Capital Cost	$ 318,964	$ 7,379,913	$ 7,636,274	$ 2,952,265	$ 24,057,583	$ 52,697,435	$ 95,042,434	
Network Expenses	$ 93,482	$ 2,156,422	$ 2,340,968	$ 913,165	$ 7,684,489	$ 17,066,255	$ 30,254,781	
Direct expense	$ 412,446	$ 9,536,335	$ 9,977,242	$ 3,865,430	$ 31,742,072	$ 69,763,690	$ 125,297,215	18.46%
Investment	$ 2,225,539	$ 51,492,606	$ 53,281,340	$ 20,599,137	$ 167,859,361	$ 367,691,092	$ 663,149,094	
Support expenses	$ 129,702	$ 3,959,709	$ 5,220,747	$ 2,215,154	$ 18,551,101	$ 43,242,807	$ 73,319,220	
Subtotal, with misc spt	$ 542,148	$ 13,496,044	$ 15,197,989	$ 6,080,584	$ 50,293,173	$ 113,006,497	$ 198,616,435	
Total, with var overhead	$ 596,362	$ 14,845,648	$ 16,717,788	$ 6,688,643	$ 55,322,490	$ 124,307,147	$ 218,478,078	
Signaling								
Annual Capital Cost	$ 7,156	$ 232,195	$ 313,202	$ 130,898	$ 1,017,619	$ 2,094,138	$ 3,795,209	
Network Expenses	$ 1,395	$ 43,078	$ 57,201	$ 23,808	$ 184,956	$ 379,919	$ 690,356	
Direct expense	$ 8,552	$ 275,273	$ 370,403	$ 154,707	$ 1,202,574	$ 2,474,057	$ 4,485,566	0.66%
Investment	$ 47,818	$ 1,551,496	$ 2,092,776	$ 874,646	$ 6,799,591	$ 13,992,748	$ 25,359,075	
Support expenses	$ 2,689	$ 114,300	$ 193,819	$ 88,658	$ 702,824	$ 1,533,537	$ 2,635,826	
Subtotal, with misc spt	$ 11,241	$ 389,572	$ 564,223	$ 243,364	$ 1,905,398	$ 4,007,593	$ 7,121,391	
Total, with var overhead	$ 12,365	$ 428,529	$ 620,645	$ 267,701	$ 2,095,938	$ 4,408,353	$ 7,833,531	
Dedicated Transport								
Annual Capital Cost	$ 25,510	$ 1,019,680	$ 1,488,255	$ 650,554	$ 5,444,231	$ 12,305,332	$ 20,933,561	
Network Expenses	$ 9,241	$ 369,382	$ 539,125	$ 235,666	$ 1,972,191	$ 4,457,647	$ 7,583,252	
Direct expense	$ 34,751	$ 1,389,062	$ 2,027,380	$ 886,220	$ 7,416,422	$ 16,762,979	$ 28,516,813	4.20%
Investment	$ 186,215	$ 7,443,431	$ 10,863,923	$ 4,748,901	$ 39,741,659	$ 89,826,149	$ 152,810,278	
Support expenses	$ 10,928	$ 576,771	$ 1,060,858	$ 507,864	$ 4,334,399	$ 10,390,481	$ 16,881,300	
Subtotal, with misc spt	$ 45,679	$ 1,965,833	$ 3,088,238	$ 1,394,084	$ 11,750,820	$ 27,153,460	$ 45,398,113	
Total, with var overhead	$ 50,247	$ 2,162,416	$ 3,397,061	$ 1,533,493	$ 12,925,902	$ 29,868,806	$ 49,937,925	
Common Transport								

	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	
Annual Capital Cost	$ 6,895	$ 212,480	$ 234,434	$ 80,605	$ 585,944	$ 912,187	$ 2,032,545	
Network Expenses	$ 2,498	$ 76,972	$ 84,924	$ 29,199	$ 212,260	$ 330,443	$ 736,296	
Direct expense	$ 9,392	$ 289,451	$ 319,358	$ 109,804	$ 798,204	$ 1,242,630	$ 2,768,841	0.41%
Investment	$ 50,330	$ 1,551,055	$ 1,711,315	$ 588,398	$ 4,277,257	$ 6,658,763	$ 14,837,117	
Support expenses	$ 2,954	$ 120,187	$ 167,109	$ 62,925	$ 466,496	$ 770,241	$ 1,589,912	
Subtotal, with misc spt	$ 12,346	$ 409,638	$ 486,468	$ 172,730	$ 1,264,700	$ 2,012,871	$ 4,358,753	
Total, with var overhead	$ 13,580	$ 450,602	$ 535,114	$ 190,003	$ 1,391,170	$ 2,214,158	$ 4,794,628	
Tandem Switching								
Annual Capital Cost	$ 4,588	$ 168,229	$ 234,771	$ 99,107	$ 774,685	$ 1,608,033	$ 2,889,413	
Network Expenses	$ 1,759	$ 64,531	$ 90,041	$ 37,984	$ 296,318	$ 613,525	$ 1,104,158	
Direct expense	$ 6,347	$ 232,760	$ 324,812	$ 137,091	$ 1,071,003	$ 2,221,558	$ 3,993,571	0.59%
Investment	$ 33,061	$ 1,212,246	$ 1,691,747	$ 714,163	$ 5,582,338	$ 11,587,400	$ 20,820,954	
Support expenses	$ 1,996	$ 96,647	$ 169,963	$ 78,563	$ 625,929	$ 1,377,026	$ 2,350,123	
Subtotal, with misc spt	$ 8,343	$ 329,407	$ 494,775	$ 215,654	$ 1,696,932	$ 3,598,583	$ 6,343,694	
Total, with var overhead	$ 9,177	$ 362,347	$ 544,253	$ 237,219	$ 1,866,625	$ 3,958,442	$ 6,978,064	
Operator Systems								
Annual Capital Cost	$ 7,239	$ 242,388	$ 307,581	$ 120,846	$ 921,764	$ 1,763,386	$ 3,363,203	
Network Expenses	$ 2,220	$ 75,570	$ 97,592	$ 38,972	$ 297,589	$ 578,166	$ 1,090,010	
Direct expense	$ 9,459	$ 317,958	$ 405,173	$ 159,718	$ 1,219,353	$ 2,341,552	$ 4,453,213	0.66%
Investment	$ 37,443	$ 1,253,734	$ 1,590,937	$ 625,067	$ 4,767,752	$ 9,120,975	$ 17,395,907	
Support expenses	$ 2,499	$ 108,446	$ 174,271	$ 75,685	$ 597,710	$ 1,243,262	$ 2,201,874	
Subtotal, with misc spt	$ 11,959	$ 426,405	$ 579,444	$ 235,403	$ 1,817,063	$ 3,584,814	$ 6,655,088	
Total, with var overhead	$ 13,154	$ 469,045	$ 637,388	$ 258,944	$ 1,998,770	$ 3,943,296	$ 7,320,597	
Public Telephone								
Annual Capital Cost	$ 693	$ 31,521	$ 48,693	$ 22,172	$ 199,374	$ 486,673	$ 789,125	
Network Expenses	$ 991	$ 45,094	$ 69,660	$ 31,719	$ 285,227	$ 696,241	$ 1,128,933	
Direct expense	$ 1,684	$ 76,615	$ 118,353	$ 53,891	$ 484,600	$ 1,182,914	$ 1,918,058	0.26%
Investment	$ 3,817	$ 173,706	$ 268,336	$ 122,185	$ 1,098,707	$ 2,681,956	$ 4,348,706	
Support expenses	$ 445	$ 26,131	$ 50,906	$ 25,537	$ 237,544	$ 628,076	$ 968,639	
Subtotal, with misc spt	$ 2,129	$ 102,747	$ 169,259	$ 79,428	$ 722,145	$ 1,810,990	$ 2,886,697	
Total, with var overhead	$ 2,341	$ 113,021	$ 186,185	$ 87,371	$ 794,359	$ 1,992,089	$ 3,175,366	
Totals								
Annual Capital Cost	$ 4,838,975	$ 61,078,156	$ 49,848,118	$ 17,815,326	$ 138,386,969	$ 262,164,262	$ 534,131,805	
Network Expenses	$ 2,233,430	$ 25,220,498	$ 18,653,504	$ 5,921,935	$ 35,323,162	$ 57,093,846	$ 144,446,375	
Total	$ 7,072,404	$ 86,298,654	$ 68,501,621	$ 23,737,261	$ 173,710,131	$ 319,258,108	$ 678,578,180	100.00%
Investment	$ 34,807,792	$ 431,385,066	$ 345,977,655	$ 122,613,932	$ 959,634,795	$ 1,839,403,536	$ 3,733,822,777	
Supporting Network Expenses								
Capital Cost - Genl Support	$ 359,176	$ 4,168,130	$ 3,083,089	$ 1,105,147	$ 10,411,923	$ 22,816,578	$ 41,944,042	
Network Operations	$ 291,072	$ 10,683,344	$ 14,904,224	$ 6,282,763	$ 48,913,869	$ 101,012,928	$ 182,088,200	
Network Support	$ 11,979	$ 153,687	$ 131,299	$ 47,167	$ 348,011	$ 673,427	$ 1,365,570	
Other Taxes	$ 486,753	$ 6,300,410	$ 5,333,168	$ 1,904,590	$ 14,092,204	$ 26,608,348	$ 54,725,474	
Misc Expenses	$ 719,816	$ 8,128,358	$ 6,011,870	$ 1,908,591	$ 11,384,363	$ 18,400,874	$ 46,553,871	
Subtotal	$ 1,868,796	$ 29,433,928	$ 29,463,651	$ 11,248,257	$ 85,150,369	$ 169,512,155	$ 326,677,157	
Carrier-carrier customer svc	$ 14,650	$ 537,704	$ 750,146	$ 316,218	$ 2,461,887	$ 5,084,089	$ 9,164,694	
Interoffice/Switching Net Ops	$ 23,684	$ 869,285	$ 1,212,731	$ 511,217	$ 3,980,036	$ 8,219,246	$ 14,816,200	
Interoffice/Sw Exp	$ 471,487	$ 11,722,880	$ 13,019,196	$ 5,153,253	$ 42,230,275	$ 92,464,915	$ 165,062,005	
Total Network Costs	$ 8,964,885	$ 116,601,867	$ 99,178,003	$ 35,496,735	$ 262,840,536	$ 496,989,509	$ 1,020,071,536	

Other costs

	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
Operating taxes and uncollectibles	$ 486,753	$ 6,300,410	$ 5,333,168	$ 1,904,590	$ 14,092,204	$ 26,608,348	$ 54,725,474
USF calculations							
Capital cost	$ 4,698,855	$ 57,271,429	$ 45,388,253	$ 16,019,385	$ 123,724,905	$ 230,192,379	$ 477,295,206
Network expenses	$ 2,189,599	$ 23,997,803	$ 17,156,258	$ 5,311,504	$ 30,236,402	$ 45,850,701	$ 124,742,267
unbundled network expenses	$ 2,233,430	$ 25,220,498	$ 18,653,504	$ 5,921,935	$ 35,323,162	$ 57,093,846	$ 144,446,375
USF/unbundled expenses	98.0%	95.2%	92.0%	89.7%	85.6%	80.3%	86.4%
USF/unbundled capital cost	97.1%	93.8%	91.1%	89.9%	89.4%	87.8%	89.4%
Capital cost – gen spt	$ 348,775	$ 3,908,349	$ 2,807,248	$ 993,738	$ 9,308,782	$ 20,034,013	$ 37,400,906
loop	$ 332,142	$ 3,538,523	$ 2,445,356	$ 850,983	$ 7,915,776	$ 16,574,779	$ 31,657,559
EO switching	$ 15,783	$ 341,868	$ 326,604	$ 127,843	$ 1,253,199	$ 3,134,268	$ 5,199,566
signaling	$ 138	$ 3,782	$ 4,563	$ 1,914	$ 17,878	$ 41,860	$ 70,135
transport	$ 712	$ 24,176	$ 30,725	$ 12,997	$ 121,929	$ 283,106	$ 473,645
Network operations	$ 308,580	$ 10,992,555	$ 14,823,309	$ 6,093,659	$ 45,276,846	$ 87,721,744	$ 165,216,692
loop	$ 293,864	$ 9,952,388	$ 12,912,384	$ 5,218,278	$ 38,501,426	$ 72,574,999	$ 139,453,339
EO switching	$ 13,964	$ 961,533	$ 1,724,591	$ 783,943	$ 6,095,415	$ 13,723,835	$ 23,303,281
signaling	$ 122	$ 10,637	$ 24,093	$ 11,740	$ 86,957	$ 183,290	$ 316,839
transport	$ 630	$ 67,997	$ 162,241	$ 79,698	$ 593,048	$ 1,239,620	$ 2,143,233
Network support	$ 11,979	$ 153,687	$ 131,299	$ 47,167	$ 348,011	$ 673,427	$ 1,365,570
loop	$ 11,408	$ 139,144	$ 114,373	$ 40,392	$ 295,933	$ 557,148	$ 1,158,397
EO switching	$ 542	$ 13,443	$ 15,276	$ 6,068	$ 46,851	$ 105,356	$ 187,536
signaling	$ 5	$ 149	$ 213	$ 91	$ 668	$ 1,407	$ 2,533
transport	$ 24	$ 951	$ 1,437	$ 617	$ 4,558	$ 9,516	$ 17,104
Misc expenses	$ 705,690	$ 7,734,293	$ 5,529,320	$ 1,711,854	$ 9,744,942	$ 14,777,301	$ 40,203,400
loop	$ 672,036	$ 7,002,438	$ 4,816,516	$ 1,465,938	$ 8,286,667	$ 12,225,733	$ 34,469,329
EO switching	$ 31,935	$ 676,529	$ 643,299	$ 220,228	$ 1,311,917	$ 2,311,870	$ 5,195,777
signaling	$ 279	$ 7,484	$ 8,987	$ 3,298	$ 18,716	$ 30,876	$ 69,640
transport	$ 1,441	$ 47,842	$ 60,518	$ 22,389	$ 127,642	$ 208,822	$ 468,654
USF investment ratios							
loop	95.2%	90.5%	87.1%	85.6%	85.0%	82.7%	
EO switching	4.5%	8.7%	11.6%	12.9%	13.5%	15.6%	
signaling	0.0%	0.1%	0.2%	0.2%	0.2%	0.2%	
transport	0.2%	0.6%	1.1%	1.3%	1.3%	1.4%	
total USF investment	$ 33,837,250	$ 405,032,891	$ 315,097,623	$ 110,167,484	$ 857,885,783	$ 1,617,058,914	

Distribution

	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	$ 1,163,201	$ 11,116,859	$ 4,327,736	$ 1,265,666	$ 8,386,686	$ 19,751,688	$ 46,011,834
total buried cable	$ 12,962,095	$ 129,467,645	$ 76,073,634	$ 21,772,458	$ 124,457,327	$ 23,607,196	$ 388,340,354
total u/g cable	$ -	$ -	$ -	$ -	$ 20,744,083	$ 74,031,457	$ 94,775,540
total conduit	$ -	$ -	$ -	$ -	$ 31,785,597	$ 213,740,444	$ 245,526,041
total aerial cable	$ 11,080,164	$ 110,979,050	$ 66,552,229	$ 18,653,028	$ 82,976,333	$ 160,401,489	$ 450,642,292
total drop cable	$ 270,503	$ 9,510,235	$ 13,011,018	$ 5,380,976	$ 40,711,498	$ 76,293,021	$ 145,177,250
total muxes and digital terminals							$ -
total NID, terminal and splice	$ 439,567	$ 15,454,132	$ 21,142,904	$ 8,744,085	$ 66,156,185	$ 123,976,159	$ 235,913,031
ROW fees							$ -
TOTAL	$ 25,915,528	$ 276,527,920	$ 181,107,519	$ 55,816,212	$ 375,217,709	$ 691,801,454	$ 1,606,386,342
	1.61%	17.21%	11.27%	3.47%	23.36%	43.07%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 1,606,386,342	$1,606,386,342	$1,606,386,342	$1,606,386,342	$1,606,386,342	$1,606,386,342	$1,606,386,342
Accumulated Depreciation		80,319,317	160,638,634	240,957,951	321,277,268	401,596,586	481,915,903
Net Plant		1,526,067,025	1,445,747,708	1,365,428,391	1,285,109,074	1,204,789,757	1,124,470,440
Depreciable Life	20						
Rate of Return	0.100						
Return Amount		152,759,309	144,719,346	136,679,382	128,639,418	120,599,455	112,559,491
Income Tax Rate	0.40						
Income Tax Gross-Up		56,011,747	53,063,760	50,115,773	47,167,787	44,219,800	41,271,813
Total Return		289,090,373	278,102,423	267,114,472	256,126,522	245,138,572	234,150,622
Discount Rate	0.100						
Present Value		1,851,354,912					
Present Value Factor		8.508					
Levelized Capital Cost		$ 217,607,900	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	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Distribution

total pole investment	$ 59,952	$ 572,967	$ 223,053	$ 65,233	$ 432,253	$ 1,018,008	$ 2,371,465
total buried cable	$ 727,115	$ 7,404,464	$ 4,632,815	$ 1,238,632	$ 6,834,482	$ 658,018	$ 21,495,526
total u/g cable	$ -	$ -	$ -	$ -	$ 92,743	$ 305,182	$ 397,924
total conduit	$ -	$ -	$ -	$ -	$ 176,014	$ 1,183,595	$ 1,359,609
total aerial cable	$ 1,060,212	$ 10,619,098	$ 6,368,090	$ 1,784,826	$ 7,939,641	$ 15,348,113	$ 43,119,980
total drop cable	$ 5,899	$ 207,408	$ 283,756	$ 117,353	$ 887,874	$ 1,663,868	$ 3,166,158
total muxes and digital terminals	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total NID	$ 20,288	$ 713,268	$ 975,826	$ 403,573	$ 3,053,362	$ 5,721,977	$ 10,888,294
Expense Summary							
Annual Capital Cost	$ 3,510,627	$ 37,459,644	$ 24,533,592	$ 7,561,101	$ 50,828,580	$ 93,714,356	$ 217,607,900
Network Expenses	$ 1,873,466	$ 19,517,204	$ 12,483,540	$ 3,609,618	$ 19,416,367	$ 25,898,761	$ 82,798,956
Total	$ 5,384,093	$ 56,976,848	$ 37,017,132	$ 11,170,718	$ 70,244,948	$ 119,613,117	$ 300,406,856

	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	$ 2,400	$ 59,000	$ 141,500	$ 69,400	$ 762,200	$ 2,193,600	$ 3,228,100
total muxes and digital terminals	$ 2,798,158	$ 57,595,506	$ 65,331,383	$ 26,603,799	$ 178,065,319	$ 244,843,250	$ 575,237,415
total common channel signaling							
TOTAL	$ 2,800,558	$ 57,654,506	$ 65,472,883	$ 26,673,199	$ 178,827,519	$ 247,036,850	$ 578,465,515
	0.48%	9.97%	11.32%	4.61%	30.91%	42.71%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 578,465,515	$578,465,515	$578,465,515	$578,465,515	$578,465,515	$578,465,515	$578,465,515
Accumulated Depreciation		57,846,551	115,693,103	173,539,654	231,386,206	289,232,757	347,079,309
Net Plant		520,618,963	462,772,412	404,925,860	347,079,309	289,232,757	231,386,206
Depreciable Life	10						
Rate of Return	0.100						
Return Amount		52,113,958	46,323,518	40,533,079	34,742,639	28,952,199	23,161,759
Income Tax Rate	0.40						
Income Tax Gross-Up		19,108,451	16,965,290	14,862,129	12,738,968	10,615,806	8,492,645
Total Return		129,068,961	121,155,360	113,241,759	105,328,158	97,414,557	89,500,956
Discount Rate	0.100						
Present Value		611,691,995					
Present Value Factor		6.142					
Levelized Capital Cost	$	99,592,825	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	$ 42,864	$ 882,498	$ 1,002,656	$ 408,552	$ 2,741,022	$ 3,793,942	$ 8,871,534
total common channel signaling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Expense Summary							
Annual Capital Cost	$ 482,164	$ 9,926,219	$ 11,272,287	$ 4,592,252	$ 30,788,245	$ 42,531,658	$ 99,592,825
Network Expenses	$ 42,864	$ 882,498	$ 1,002,656	$ 408,552	$ 2,741,022	$ 3,793,942	$ 8,871,534
Total	$ 525,028	$ 10,808,716	$ 12,274,943	$ 5,000,803	$ 33,529,267	$ 46,325,600	$ 108,464,359

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	$ 102,965	$ 802,360	$ 422,536	$ 85,735	$ 267,935	$ 199,894	$ 1,881,425
total buried cable	$ 1,981,621	$ 17,875,577	$ 14,304,660	$ 5,112,623	$ 10,460,510	$ 15,049,295	$ 64,784,287
total u/g cable	$ 128,846	$ 1,253,794	$ 1,175,309	$ 1,767,727	$ 71,779,716	$ 201,529,160	$ 277,634,551
total conduit	$ 388,740	$ 3,127,975	$ 1,745,524	$ 1,974,761	$ 83,982,257	$ 171,031,736	$ 262,250,994
total aerial cable	$ 905,313	$ 9,464,658	$ 10,248,850	$ 2,911,179	$ 8,972,464	$ 11,196,064	$ 43,698,529
total drop cable							$ -
total muxes and digital terminals							$ -
total ROW							$ -
network investment frac							
TOTAL	$ 3,507,485	$ 32,524,365	$ 27,896,879	$ 11,852,025	$ 175,462,883	$ 399,006,149	$ 650,249,786
	0.54%	5.00%	4.29%	1.82%	26.98%	61.36%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 650,249,786	$650,249,786	$650,249,786	$650,249,786	$650,249,786	$650,249,786	$650,249,786
Accumulated Depreciation		32,512,489	65,024,979	97,537,468	130,049,957	162,562,447	195,074,936
Net Plant		617,737,297	585,224,808	552,712,318	520,199,829	487,687,340	455,174,850
Depreciable Life	20						
Rate of Return	0.100						
Return Amount		61,835,503	58,581,003	55,326,503	52,072,003	48,817,503	45,563,003
Income Tax Rate	0.40						
Income Tax Gross-Up		22,673,018	21,479,701	20,286,384	19,093,068	17,899,751	16,706,434
Total Return		117,021,011	112,573,194	108,125,377	103,677,560	99,229,743	94,781,926
Discount Rate	0.100						
Present Value		749,410,714					
Present Value Factor		8.506					
Levelized Capital Cost		$ 88,085,591	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	$ 5,307	$ 41,354	$ 21,778	$ 4,419	$ 13,809	$ 10,303	$ 96,969
total buried cable	$ 111,160	$ 1,022,333	$ 871,141	$ 290,856	$ 574,431	$ 419,478	$ 3,289,400
total u/g cable	$ 269	$ 3,108	$ 4,543	$ 8,583	$ 320,912	$ 830,769	$ 1,168,185
total conduit	$ 2,153	$ 17,321	$ 9,666	$ 10,935	$ 465,055	$ 947,094	$ 1,452,224
total aerial cable	$ 86,625	$ 905,632	$ 980,667	$ 278,558	$ 858,536	$ 1,071,302	$ 4,181,320
total drop cable	$ -	$ -	$ -	$ -	$ -	$ -	$ -
total muxes and digital terminals							$ -
total common channel signaling							$ -
Expense Summary							
Annual Capital Cost	$ 475,139	$ 4,405,888	$ 3,779,029	$ 1,605,526	$ 23,768,945	$ 54,051,063	$ 88,085,591
Network Expenses	$ 205,514	$ 1,989,748	$ 1,887,795	$ 593,352	$ 2,232,743	$ 3,278,946	$ 10,188,098
Total	$ 680,653	$ 6,395,636	$ 5,666,824	$ 2,198,877	$ 26,001,689	$ 57,330,010	$ 98,273,689

EO Switching

	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	$ 450,492	$ 10,336,263	$ 12,164,635	$ 4,811,823	$ 42,470,851	$ 96,161,416	$ 166,395,281
total switching, installed	$ 1,775,047	$ 41,156,342	$ 41,116,705	$ 15,787,313	$ 125,388,730	$ 271,529,676	$ 496,753,813
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	$ 2,225,539	$ 51,492,606	$ 53,281,340	$ 20,599,137	$ 167,859,381	$ 367,691,092	$ 663,149,094
	0.34%	7.76%	8.03%	3.11%	25.31%	55.45%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 663,149,094	$663,149,094	$663,149,094	$663,149,094	$663,149,094	$663,149,094	$663,149,094
Accumulated Depreciation		41,446,818	82,893,637	124,340,455	165,787,274	207,234,092	248,680,910
Net Plant		621,702,276	580,255,458	538,808,639	497,361,821	455,915,002	414,468,184
Depreciable Life	16						
Rate of Return	0.100						
Return Amount		62,232,398	58,083,571	53,934,745	49,785,918	45,637,092	41,488,265
Income Tax Rate	0.40						
Income Tax Gross-Up		22,818,546	21,297,309	19,776,073	18,254,837	16,733,600	15,212,364
Total Return		126,497,762	120,827,699	115,157,636	109,487,573	103,817,510	98,147,448
Discount Rate	0.100						
Present Value		743,141,795					
Present Value Factor		7.819					
Levelized Capital Cost	$	95,042,434	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	$ 45,733	$ 1,049,316	$ 1,234,928	$ 488,486	$ 4,311,532	$ 9,762,107	$ 16,892,103
total switching, installed	$ 47,749	$ 1,107,106	$ 1,106,039	$ 424,679	$ 3,372,957	$ 7,304,148	$ 13,362,678
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	$ 318,964	$ 7,379,913	$ 7,636,274	$ 2,952,265	$ 24,057,583	$ 52,697,435	$ 95,042,434
Network Expenses	$ 93,482	$ 2,156,422	$ 2,340,968	$ 913,165	$ 7,684,489	$ 17,066,255	$ 30,254,781
Total	$ 412,446	$ 9,536,335	$ 9,977,242	$ 3,865,430	$ 31,742,072	$ 69,763,690	$ 125,297,215

	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	$ 22,862	$ 752,287	$ 1,020,378	$ 427,038	$ 3,320,781	$ 6,839,946	$ 12,383,292
total links	$ 4,791	$ 59,066	$ 39,834	$ 12,338	$ 90,055	$ 154,623	$ 360,708
total SCP	$ 20,166	$ 740,142	$ 1,032,565	$ 435,270	$ 3,388,754	$ 6,998,178	$ 12,615,075
TOTAL	$ 47,818	$ 1,551,496	$ 2,092,776	$ 874,646	$ 6,799,591	$ 13,992,748	$ 25,359,075
	0.19%	6.12%	8.25%	3.45%	26.81%	55.18%	100.00%

Cost of Capital

Year		1	2	3	4	5	6
Total Investment	$ 25,359,075	$25,359,075	$25,359,075	$25,359,075	$25,359,075	$25,359,075	$25,359,075
Accumulated Depreciation		1,811,363	3,622,725	5,434,088	7,245,450	9,056,813	10,868,175
Net Plant		23,547,713	21,736,350	19,924,988	18,113,625	16,302,263	14,490,900
Depreciable Life	14						
Rate of Return	0.100						
Return Amount		2,357,126	2,175,809	1,994,491	1,813,174	1,631,856	1,450,539
Income Tax Rate	0.40						
Income Tax Gross-Up		864,280	797,797	731,313	664,830	598,347	531,864
Total Return		5,032,768	4,784,968	4,537,167	4,289,367	4,041,566	3,793,766
Discount Rate	0.100						
Present Value		27,942,889					
Present Value Factor		7.363					
Levelized Capital Cost		$ 3,795,209	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	$ 615	$ 20,237	$ 27,448	$ 11,487	$ 89,329	$ 183,995	$ 333,111
total links	$ 238	$ 2,931	$ 1,977	$ 612	$ 4,469	$ 7,673	$ 17,900
total SCP	$ 542	$ 19,910	$ 27,776	$ 11,709	$ 91,157	$ 188,251	$ 339,346
Expense Summary							
Annual Capital Cost	$ 7,156	$ 232,195	$ 313,202	$ 130,898	$ 1,017,619	$ 2,094,138	$ 3,795,209
Network Expenses	$ 1,395	$ 43,078	$ 57,201	$ 23,808	$ 184,956	$ 379,919	$ 690,356
Total	$ 8,552	$ 275,273	$ 370,403	$ 154,707	$ 1,202,574	$ 2,474,057	$ 4,485,566

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 transmiss	$ 186,215	$ 7,443,431	$ 10,863,923	$ 4,748,901	$ 39,741,659	$ 89,826,149	$ 152,810,278
TOTAL	$ 186,215	$ 7,443,431	$ 10,863,923	$ 4,748,901	$ 39,741,659	$ 89,826,149	$ 152,810,278
	0.12%	4.87%	7.11%	3.11%	26.01%	58.78%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 152,810,278	$152,810,278	$152,810,278	$152,810,278	$152,810,278	$152,810,278	$152,810,278
Accumulated Depreciation		8,042,646	16,085,292	24,127,939	32,170,585	40,213,231	48,255,877
Net Plant		144,767,632	136,724,986	128,682,340	120,639,693	112,597,047	104,554,401
Depreciable Life	19						
Rate of Return	0.100						
Return Amount		14,491,240	13,686,171	12,881,102	12,076,033	11,270,964	10,465,896
Income Tax Rate	0.40						
Income Tax Gross-Up		5,313,455	5,018,263	4,723,071	4,427,879	4,132,687	3,837,495
Total Return		27,847,341	26,747,080	25,646,819	24,546,558	23,446,298	22,346,037
Discount Rate	0.100						
Present Value		174,991,643					
Present Value Factor		8.359					
Levelized Capital Cost		$ 20,933,561	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 transmiss	$ 9,241	$ 369,382	$ 539,125	$ 235,666	$ 1,972,191	$ 4,457,647	$ 7,583,252
Expense Summary							
Annual Capital Cost	$ 25,510	$ 1,019,680	$ 1,488,255	$ 650,554	$ 5,444,231	$ 12,305,332	$ 20,933,561
Network Expenses	$ 9,241	$ 369,382	$ 539,125	$ 235,666	$ 1,972,191	$ 4,457,647	$ 7,583,252
Total	$ 34,751	$ 1,389,062	$ 2,027,380	$ 886,220	$ 7,416,422	$ 16,762,979	$ 28,516,813

Common 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
Common Transport							
total common transmissi	$ 50,330	$ 1,551,055	$ 1,711,315	$ 588,398	$ 4,277,257	$ 6,658,763	$ 14,837,117
TOTAL	$ 50,330	$ 1,551,055	$ 1,711,315	$ 588,398	$ 4,277,257	$ 6,658,763	$ 14,837,117
	0.34%	10.45%	11.53%	3.97%	28.83%	44.88%	100.00%

Cost of Capital

Year		1	2	3	4	5	6
Total Investment	$ 14,837,117	$14,837,117	$14,837,117	$14,837,117	$14,837,117	$14,837,117	$14,837,117
Accumulated Depreciation		780,901	1,561,802	2,342,703	3,123,604	3,904,505	4,685,406
Net Plant		14,056,217	13,275,316	12,494,415	11,713,514	10,932,613	10,151,712
Depreciable Life	19						
Rate of Return	0.100						
Return Amount		1,407,027	1,328,859	1,250,691	1,172,523	1,094,355	1,016,186
Income Tax Rate	0.400						
Income Tax Gross-Up		515,910	487,248	458,587	429,925	401,263	372,602
Total Return		2,703,838	2,597,008	2,490,178	2,383,349	2,276,519	2,169,689
Discount Rate	0.100						
Present Value		16,990,817					
Present Value Factor		8.359					
Levelized Capital Cost	$	2,032,545	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 transmiss	$ 2,498	$ 76,972	$ 84,924	$ 29,199	$ 212,260	$ 330,443	$ 736,296
Expense Summary							
Annual Capital Cost	$ 6,895	$ 212,480	$ 234,434	$ 80,605	$ 585,944	$ 912,187	$ 2,032,545
Network Expenses	$ 2,498	$ 76,972	$ 84,924	$ 29,199	$ 212,260	$ 330,443	$ 736,296
Total	$ 9,392	$ 289,451	$ 319,358	$ 109,804	$ 798,204	$ 1,242,630	$ 2,768,841

Tandem Switching

	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	$ 11,656	$ 427,800	$ 596,819	$ 251,585	$ 1,958,688	$ 4,044,923	$ 7,291,470
total switching	$ 21,405	$ 784,447	$ 1,094,928	$ 462,578	$ 3,623,649	$ 7,542,477	$ 13,529,484
TOTAL	$ 33,061	$ 1,212,246	$ 1,691,747	$ 714,163	$ 5,582,338	$ 11,587,400	$ 20,820,954
	0.16%	5.82%	8.13%	3.43%	26.81%	55.65%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 20,820,954	$20,820,954	$20,820,954	$20,820,954	$20,820,954	$20,820,954	$20,820,954
Accumulated Depreciation		1,156,720	2,313,439	3,470,159	4,626,879	5,783,598	6,940,318
Net Plant		19,664,235	18,507,515	17,350,795	16,194,076	15,037,356	13,880,636
Depreciable Life	18						
Rate of Return	0.100						
Return Amount		1,968,390	1,852,602	1,736,815	1,621,027	1,505,239	1,389,452
Income Tax Rate	0.40						
Income Tax Gross-Up		721,743	679,287	636,832	594,377	551,921	509,466
Total Return		3,846,853	3,688,609	3,530,366	3,372,123	3,213,880	3,055,637
Discount Rate	0.100						
Present Value		23,682,079					
Present Value Factor		8.196					
Levelized Capital Cost	$	2,889,413	0.138774267				

	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	$ 1,183	$ 43,429	$ 60,588	$ 25,540	$ 198,842	$ 410,632	$ 740,215
total switching	$ 576	$ 21,102	$ 29,454	$ 12,443	$ 97,476	$ 202,893	$ 363,943
Expense Summary							
Annual Capital Cost	$ 4,588	$ 168,229	$ 234,771	$ 99,107	$ 774,685	$ 1,608,033	$ 2,889,413
Network Expenses	$ 1,759	$ 64,531	$ 90,041	$ 37,984	$ 296,318	$ 613,525	$ 1,104,158
Total	$ 6,347	$ 232,760	$ 324,812	$ 137,091	$ 1,071,003	$ 2,221,558	$ 3,993,571

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	$ 3,440	$ 126,269	$ 176,157	$ 74,258	$ 578,125	$ 1,193,897	$ 2,152,146
total switching	$ 4,926	$ 178,101	$ 247,917	$ 104,727	$ 822,039	$ 1,715,744	$ 3,073,454
total transport	$ 17,728	$ 532,835	$ 585,767	$ 201,126	$ 1,460,502	$ 2,272,977	$ 5,070,935
total operator positions	$ 11,349	$ 416,529	$ 581,096	$ 244,956	$ 1,907,086	$ 3,938,357	$ 7,099,373
TOTAL	$ 37,443	$ 1,253,734	$ 1,590,937	$ 625,067	$ 4,767,752	$ 9,120,975	$ 17,395,907
	0.22%	7.21%	9.15%	3.59%	27.41%	52.43%	100.00%

Cost of Capital

	Year	1	2	3	4	5	6
Total Investment	$ 17,395,907	$17,395,907	$17,395,907	$17,395,907	$17,395,907	$17,395,907	$17,395,907
Accumulated Depreciation		2,174,488	4,348,977	6,523,465	8,697,954	10,872,442	13,046,930
Net Plant		15,221,419	13,046,930	10,872,442	8,697,954	6,523,465	4,348,977
Depreciable Life	8						
Rate of Return	0.100						
Return Amount		1,523,664	1,305,998	1,088,331	870,665	652,999	435,333
Income Tax Rate	0.40						
Income Tax Gross-Up		558,677	478,866	399,055	319,244	239,433	159,622
Total Return		4,256,829	3,959,352	3,661,875	3,364,397	3,066,920	2,769,443
Discount Rate	0.100						
Present Value		17,935,910					
Present Value Factor		5.333					
Levelized Capital Cost	$	3,363,203	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	$ 349	$ 12,819	$ 17,883	$ 7,538	$ 58,690	$ 121,202	$ 218,481
total switching	$ 132	$ 4,791	$ 6,669	$ 2,817	$ 22,113	$ 46,154	$ 82,676
total transport	$ 880	$ 26,442	$ 29,069	$ 9,981	$ 72,478	$ 112,797	$ 251,647
total operator positions	$ 859	$ 31,519	$ 43,971	$ 18,536	$ 144,308	$ 298,014	$ 537,207
Expense Summary							
Annual Capital Cost	$ 7,239	$ 242,388	$ 307,581	$ 120,846	$ 921,764	$ 1,763,386	$ 3,363,203
Network Expenses	$ 2,220	$ 75,570	$ 97,592	$ 38,872	$ 297,589	$ 578,166	$ 1,090,010
Total	$ 9,459	$ 317,958	$ 405,173	$ 159,718	$ 1,219,353	$ 2,341,552	$ 4,453,213

Public Telephone

	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 equipm	$ 3,817	$ 173,706	$ 268,336	$ 122,185	$ 1,098,707	$ 2,681,956	$ 4,348,706
TOTAL	$ 3,817	$ 173,706	$ 268,336	$ 122,185	$ 1,098,707	$ 2,681,956	$ 4,348,706
	0.09%	3.99%	6.17%	2.81%	25.27%	61.67%	100.00%

Cost of Capital

Year		1	2	3	4	5	6
Total Investment	$ 4,348,706	$4,348,706	$4,348,706	$4,348,706	$4,348,706	$4,348,706	$4,348,706
Accumulated Depreciation		483,190	966,379	1,449,569	1,932,758	2,415,948	2,899,138
Net Plant		3,865,517	3,382,327	2,899,138	2,415,948	1,932,758	1,449,569
Depreciable Life	9						
Rate of Return	0.100						
Return Amount		386,938	338,571	290,204	241,836	193,469	145,102
Income Tax Rate	0.40						
Income Tax Gross-Up		141,877	124,143	106,408	88,673	70,939	53,204
Total Return		1,012,005	945,903	879,801	813,699	747,597	681,495
Discount Rate	0.100						
Present Value		4,542,783					
Present Value Factor		5.757					
Levelized Capital Cost	$	789,125	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 eq	$ 991	$ 45,094	$ 69,660	$ 31,719	$ 285,227	$ 696,241	$ 1,128,933
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	$ 693	$ 31,521	$ 48,693	$ 22,172	$ 199,374	$ 486,673	$ 789,125
Network Expenses	$ 991	$ 45,094	$ 69,660	$ 31,719	$ 285,227	$ 696,241	$ 1,128,933
Total	$ 1,684	$ 76,615	$ 118,353	$ 53,891	$ 484,600	$ 1,182,914	$ 1,918,058

Hatfield Model Version 2.2 Release 2

COST OF NETWORK ELEMENTS

Florida BELLSOUTH TELECOMM INC - FL

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	$ 7,487,451	$ 84,050,969	$ 58,232,677	$ 18,110,544	$ 115,145,884	$ 201,434,722	$ 484,462,246
Unit Cost/month	$ 66.44	$ 20.32	$ 10.09	$ 7.45	$ 6.08	$ 5.15	$ 6.87
Loop Concentration							
Annual Cost	$ 730,137	$ 15,944,776	$ 19,310,053	$ 8,107,560	$ 54,961,348	$ 78,014,725	$ 177,068,600
Unit Cost/month	$ 6.48	$ 3.85	$ 3.35	$ 3.33	$ 2.90	$ 1.99	$ 2.51
Loop Feeder							
Annual Cost	$ 946,558	$ 9,434,699	$ 8,914,638	$ 3,564,933	$ 42,622,103	$ 96,546,724	$ 162,029,656
Unit Cost/month	$ 8.40	$ 2.28	$ 1.54	$ 1.47	$ 2.25	$ 2.47	$ 2.30
Total Loop							
Annual Cost	$ 9,164,146	$ 109,430,444	$ 86,457,368	$ 29,783,036	$ 212,729,335	$ 375,996,171	$ 823,560,501
Unit Cost/month	$ 81.32	$ 26.46	$ 14.98	$ 12.24	$ 11.23	$ 9.61	$ 11.68
Total lines	9,391	344,682	480,863	202,704	1,578,133	3,259,031	5,874,804
Total lines served by DLC	8,742	318,276	382,700	157,493	1,047,915	1,460,786	3,375,912

	Annual Cost	Units		Unit Cost	
End office switching	$ 218,478,078				
1. Port	$ 65,543,423	5,459,485	switched lines	$ 1.00	per line/month
2. Usage	$ 152,934,655	93,536,345,969	minutes	$ 0.0016	per minute
Signaling network elements	$ 7,833,531				
1. Links	$ 111,424	512	links	$ 18.14	per link per month
2. STP	$ 3,825,254	72,345,209,941	TCAP+ISUP messages	$ 0.00005	per signaling message
3. SCP	$ 3,896,853	4,977,664,600	TCAP messages	$ 0.00078	per signaling message
Transport network elements					
1. Dedicated	$ 49,937,925	998,146	trunks	$ 4.17	per DS-0 equivalent/month
Switched	$ 29,159,228	582,827		$ 0.00042	per minute
Special	$ 20,778,696	415,319			
2. Common	$ 4,794,628	6,689,374,354	minutes	$ 0.00073	per minute per leg (orig or term)
3. Tandem switch	$ 6,978,064	5,730,057,671	minutes	$ 0.0012	per minute
Operator systems	$ 7,320,597				
Total	$ 1,118,903,324				
Total cost of switched network elements	$ 15.87	per line/month			

Intrastate Toll DEMs	**9,984,285,526**					
Interstate Toll DEMs	**19,195,717,860**					
				10,044	trk-min/mo	
				interLATA ded. trunks		206,741
Common Transport MOU				**end office trk port inv**	**$**	**95,891,301**
Local	**853,373,676**	**w/o OS usage**				
Intrastate Toll	**1,996,857,105**					
Interstate Toll	**3,839,143,572**					
	6,689,374,354					
Intrastate IntraLATA Calls	**663,660,000**	**53.35%**	SOCCC message counts			
Intrastate InterLATA Calls	**580,388,000**	**46.65%**				
	1,244,048,000					
		trunk port usage	118,834,508,832			
Calculation of EO Usage						
Local DEMs, incl OS	**84,865,531,846**	**74.4%**	**of total DEMs**			
Intraoffice Local DEMs	**41,018,378,531**					
Intraoffice Local Actual Min	**20,509,189,266**		**Dedicated Transport MOU**			
Interoffice Local Actual Min	**43,847,153,317**	**per end**	**Local, w/o OS**	20,907,655,068		
Intrastate Toll Actual Min	**9,984,285,526**		**IntraLATA Toll**	2,130,519,379		
Interstate Toll Actual Min	**19,195,717,860**		**InterLATA Toll**	24,918,964,628		
	93,536,345,969			47,957,139,075		
Tandem Switch MOU			**Dedicated Trunk-SW**	397,877		

Cost detail

Loops percent	0.16%	5.87%	8.19%	3.45%	26.86%	55.47%	100.00%
Loops	9,388	344,552	480,665	202,614	1,577,353	3,256,908	5,871,480

		interconnected at end office		tandem		wtd average
Local interconnection	$	0.0017	$	0.0036		n/a
IXC switched access	$	0.0021	$	0.0040	$	0.0025

per 800 attempt (TCAP)	$	0.0017
	$	0.0003
ISUP cost/transaction	$	0.0003
ISUP cost/completion	$	0.0005
IXC switched access MOU/comp		9.95
ISUP cost/min	$	0.0000
D link per month	$	5.67
DS-1 per month	$	100
DS-3 per month	$	2,802

	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	$ 0.58	$ 0.58	$ 0.60	$ 0.60	$ 0.58	$ 0.53	$ 0.55

trunk port costs		
per trunk port (DS-0)	$	3.67
per trunk port minute	$	0.00058
total EO usage per minute	$	0.00164
trk port/min	$	0.00058
other	$	0.00106