

DIRECT TESTIMONY OF DON J. WOOD
ON BEHALF OF MCI
(MCI/GTEFL Arbitration)

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6 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

10
11 Q. PLEASE DESCRIBE YOUR BACKGROUND AND EXPERIENCE.

12 A. I received a BBA in Finance with distinction from Emory University and an
13 MBA with concentrations in Finance and Microeconomics from the College of
14 William and Mary. My telecommunications experience includes employment
15 at both a Regional Bell Operating Company ("RBOC") and an Interexchange
16 Carrier ("IXC").

17 I was employed in the local exchange industry by BellSouth Services,
18 Inc. in its Pricing and Economics, Service Cost Division. My responsibilities
19 included performing cost analyses of new and existing services, preparing
20 documentation for filings with state regulatory commissions and the Federal
21 Communications Commission ("FCC"), developing methodology and computer
22 models for use by other analysts, and performing special assembly cost
23 studies. I was employed in the interexchange industry by MCI
24 Telecommunications Corporation, as Manager of Regulatory Analysis for the
25 Southern Division. In this capacity I was responsible for the development and
26 implementation of regulatory policy for operations in the southern U. S. I

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1 then served as a Manager in the Economic Analysis and Regulatory Affairs
2 Organization, where I participated in the development of regulatory policy for
3 national issues.

4

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

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

11

12 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

13 A. I have been asked by MCI Telecommunications Corporation ("MCI") to
14 describe the methodology that MCI believes should be used for accurately
15 determining the relevant costs of unbundled network elements to be provided
16 by General Telephone Company of Florida ("GTEFL") pursuant to the Federal
17 Telecommunications Act of 1996. I will also describe the results of applying
18 this methodology in the state of Florida, and provide an overview of the model
19 used to develop these costs.

20 My testimony is divided into three sections: Section I introduces the
21 basis for the costs developed by MCI for the unbundled network elements and
22 describes how those costs -- and the underlying methodology used to develop
23 them -- are consistent with sound economic costing principles generally and
24 with the FCC's August 8, 1996 First Report and Order in CC Docket 96-98

1 specifically. Section II describes how the model used to develop these costs
2 operates, and Section III identifies the inputs used and reports the results of
3 this analysis. I will refer to the methodology used as the Hatfield Model
4 ("HM"), and will discuss the results obtained using Version 2.2, Release 2, of
5 that model.

6

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

9 A. While employed in the BellSouth Service Cost organization, I had the
10 opportunity to work with a number of cost models and to analyze and review
11 the manner in which these models were used in the cost development process.
12 Since that time, I have reviewed incremental cost studies performed by each of
13 the seven regional Bell Operating Companies ("RBOCs") and a number of Tier
14 1 Local Exchange Companies ("LECs"). My review has included an
15 evaluation of the methodologies, computer models and spreadsheets, and
16 inputs/assumptions used. I have also been asked by regulators to develop
17 detailed rules to be used by the LECs when performing TSLRIC studies.

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

22

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

2

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

5 A. The Hatfield Model was developed by Hatfield Associates, Inc. of Boulder,
6 Colorado at the request of AT&T and MCI. Its purposes are to 1) estimate
7 the costs of the unbundled network elements described in § 252 (d) (1)(A) and
8 (B) of the Telecommunications Act of 1996, and 2) to develop an estimate of
9 the cost of basic exchange telephone service that is the subject of universal
10 service funding mechanisms. Complete documentation describing the
11 operation of the model in detail is being developed and can be made available
12 upon request.

13 The HM derives some of its inputs and methods from version 1 of the
14 BCM Plus model, a successor to the Benchmark Cost Model ("BCM"), which
15 was originally developed by US WEST, NYNEX, MCI, and the local services
16 operation of Sprint. (On July 3, 1996, US West and Sprint Corporation
17 presented version 2 of the BCM to the FCC. NYNEX and MCI are not
18 sponsors of BCM2. A careful review indicates that the purported
19 enhancements in BCM2 are already present in the Hatfield Model.)

20

21 Q. HAS THE HATFIELD MODEL EVOLVED OVER TIME?

22 A. Yes. Originally, the Model was used to produce estimates of the TSLRIC of
23 basic local exchange service as part of an examination of the cost of universal
24 service. A second version, referred to as the Hatfield Model V.2.2, Release 1

1 was then developed to estimate costs for unbundled network elements only.
2 Version 2.2, Release 2, used to produce the results in this testimony, considers
3 both unbundled elements and basic local exchange service. It also incorporates
4 a number of enhancements over earlier versions, the ultimate effect of which is
5 to increase the degree of certainty associated with the results it calculates.

6

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

9 A. The model uses sound economic costing principles to estimate the relevant
10 costs. Its operations can be readily scrutinized, and a large number of its
11 inputs can be set, by users. It includes all network elements and associated
12 costs that are necessary to provide the unbundled elements and local exchange
13 service considered by the model.

14

15 Q. PLEASE DESCRIBE THE PUBLIC NATURE OF THE MODEL.

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

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

5

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

8 A. Previously lacking such open cost models, regulators and intervenors have
9 been forced to rely on cost studies produced by the incumbent Local Exchange
10 Carriers (ILECs) as the only available source of cost data. Attempts to
11 review, analyze, and verify the cost data produced by such models have met
12 with, at best, only limited success.

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

1 the reasonableness of ILEC cost estimates.

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

12 In summary, a fundamental issue with any cost study is the integrity of
13 the assumptions, calculations and input values used to develop the ultimate
14 outputs. The only method to test the reliability of the final product is to make
15 all of the data as well as the methodology accessible for independent scrutiny
16 and evaluation. The Hatfield Model uses clearly documented and visible
17 methodologies which are verifiable, and non-proprietary data obtained from
18 publicly-available sources. Both the inputs and outputs to the Hatfield Model
19 are open for inspection and analysis. Inputs can be varied as appropriate, and
20 sensitivity testing can be conducted by varying these inputs. The results are
21 all subject to challenge and verification.

22

23 Q. YOU STATED THAT THE HATFIELD MODEL CALCULATES COSTS
24 USING A METHODOLOGY THAT IS CONSISTENT WITH THE

1 "FORWARD LOOKING ECONOMIC COST"-BASED STANDARD
2 ADOPTED BY THE FCC. PLEASE DESCRIBE THE STATED BASIS FOR
3 THE FCC'S METHODOLOGY.

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

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

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

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

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

7 Use of a forward-looking methodology. The FCC concluded that the
8 relevant costs should be the costs that "a carrier would incur in the future"
9 (para. 683), and that a "forward-looking economic cost methodology based on
10 the most efficient technology deployed in the incumbent LEC's current wire
11 center locations" (para. 685). The HM utilizes existing wire center locations,
12 and develops investments using the most efficient, currently available
13 technologies for the provision of loop facilities, switching, interoffice
14 transport, and signalling.

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

23 Embedded costs should not be included. The FCC concluded that a
24 cost methodology based on embedded costs, or a "markup" to reflect the

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

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

16 Access to Cost Data/Burden of Proof. The FCC notes that "the
17 incumbent LECs have greater access to the cost information necessary to
18 calculate the incremental cost of the unbundled elements of the network.
19 Given this asymmetric access to cost data, we find that incumbent LECs must
20 prove to the state commission the nature and magnitude of any forward
21 looking cost that it seeks to recover" (para.680, 696). The HM calculates
22 costs using the best publicly available data that has been identified. The
23 model is designed to permit calculations of cost based on LEC-provided data if
24 the LEC has met the burden of proof that these data will accurately identify

1 forward looking costs.

2 Use of generic forward looking cost models. While the FCC stated
3 that it had not had ample time to review the Hatfield Model specifically, it
4 stated that the HM and similar generic models "appear best to comport with
5 the preferred economic cost approach discussed previously" in the Order (para.
6 834), and that the HM and similar models "appear to offer a method of
7 estimating the cost of network elements on a forward looking basis that is
8 practical to implement and that allows state commissions the ability to examine
9 the assumptions and parameters that go into the cost estimates" (para. 835).
10 Of those models referred to by the FCC in this section, only the Hatfield
11 Model is based on publicly available data and permits scrutiny by both
12 commissions and interested parties.

13 Inclusion of specific types of cost and application of principle of cost
14 causation. The FCC states that unbundled network elements should be priced
15 at "the forward looking costs that can be attributed directly to the provision of
16 services using that element, plus a reasonable share of the forward looking
17 joint and common costs" (para. 673), and indicates that "costs must be
18 attributed on a cost-causative basis. Costs are causally related to the network
19 element being provided if the costs are incurred as a direct result of providing
20 the network elements, or can be avoided, in the long run, when the company
21 ceases to provide them" (para. 691). The FCC goes on in subsequent
22 paragraphs of the Order to define these terms and to give illustrative examples
23 (See paras. 678,679,682, 690, 691, 694, 698). The HM uses cost-causative
24 principles to identify forward-looking costs with specific network elements. It

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

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

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

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

17
18 Q. HAVE REGULATORS AND ECONOMISTS ENDORSED THE HATFIELD
19 MODEL?

20 A. Yes. With reference to an earlier version of the model, which lacks a number
21 of the features and enhancements incorporated into Release 2, the Washington
22 Utilities and Transportation Commission concluded the following (See WUTC
23 Docket No. UT-950200, Fifteenth Supplemental Order, page 82):

24 The Commission rejects USWC's cost studies for local

1 service and the local loop. The most reasonable and
2 accurate measure of incremental cost for these services
3 on this record is provided by the Hatfield model ... We
4 are satisfied that it accurately reflects costs incurred by
5 USWC and that, if it errs, it likely errs on the high side.

6
7 Nationally prominent economists have also endorsed the HM. In an
8 affidavit submitted in response to the FCC's April 19, 1996, Notice of
9 Proposed Rulemaking in CC Docket No. 96-98, Professors William J.
10 Baumol, Janusz A. Ordover and Robert D. Willig state in paragraph 38 that:

11 We have reviewed the costing model constructed for
12 AT&T and MCI by Hatfield Associates, Inc., a
13 telecommunications consulting firm. The object of the
14 current Hatfield model is to estimate the total costs of
15 building and operating a network, using efficient,
16 forward-looking technology, to supply all "basic"
17 narrowband services (essentially all local and intraLATA
18 toll service, including carrier access) currently supplied
19 in the United States. We conclude that the Hatfield
20 Model follows reasonably closely the TSLRIC principles
21 discussed in Section II. Where limitations on the
22 availability of data have forced the designers of the
23 model to use approximations that deviate from the
24 theoretical ideal, the shortcuts adopted tend to

1 overestimate, not underestimate, true TSLRIC. Further
2 the model is extremely flexible: whenever values are
3 available, they can readily be substituted for the values
4 used currently.

5

6 **Section II: Constituents and Operation of the Hatfield Model**

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

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

19

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

21 A. A key constituent of the HM is BCM-PLUS, which was derived from the first
22 version of the BCM ("BCM1"). However, BCM-PLUS, and the remaining
23 modules of the HM, use BCM1 only as an initial step in the development of
24 the investment associated with the feeder and distribution components of the

1 local loop. The Hatfield Model adds network components not included in
2 BCM1. It also applies BCM1 output to its own switching investment module.
3 The switching module in the Hatfield Model contains separate, user-changeable
4 factors for switching investment, construction, installation, floor space and
5 frames. This disaggregation provides for a thorough determination of wire
6 center costs. The same module determines the investment in interoffice call
7 transport and signaling facilities.

8 BCM-PLUS, together with the Hatfield Model, improve on BCM1 in a
9 number of ways. First, the HM uses a 1995 estimate of households per
10 Census Block Group (CBG), whereas BCM1 used 1990 census data. Second,
11 the HM accounts for multi-line residences, and business, special access, and
12 payphone lines, which were excluded from the loop facilities calculation in the
13 BCM1. In doing so, it uses a database showing the number of employees per
14 CBG that was not identified at the time BCM1 or earlier versions of the HM
15 were written. Third, the HM estimates costs according to the line density --
16 that is, the number of *lines* served per square mile -- rather than the number of
17 *households* per square mile. Fourth, the HM increases the amount of
18 distribution cable in the two highest density ranges, and decreases it in lowest
19 density range, consistent with the amount of cable that would actually be
20 required for such a line density. Fifth, the HM estimates structure costs
21 independently of the cost of the cable itself, whereas the BCM1 estimated
22 structure costs as a multiplier of cable costs. In addition, the HM includes
23 cable installation (placement) costs, which tends to increase the per-foot cost of
24 the cable. Sixth, the Hatfield Model includes costs associated with network

1 elements that were not included in the BCM1, such as the drop wire, network
2 interface device, terminal, and serving area interface portions of the local
3 loop, and the facilities necessary to connect LEC end offices (interoffice
4 facilities). These are perhaps the most significant changes; there are a number
5 of additional minor changes.

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

9
10 Q. PLEASE DESCRIBE THE INPUT DATA USED BY THE HATFIELD
11 MODEL.

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

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

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

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

11

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

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

- 15 • Line Multiplier Module;
- 16 • Data Module;
- 17 • Loop Module;
- 18 • Wire Center Investment Module;
- 19 • Convergence Module; and
- 20 • Expense Module.

21 An overview of each of the modules is provided below.

22

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

24 A. In order to calculate costs on a per line basis, the HM uses estimates of the

1 total number of lines (including residential, business, public telephone and
2 special access lines) within each CBG. CBG input data contains the number of
3 households, not number of lines, in each CBG. The line multiplier module
4 determines a ratio of total residential lines reported in ARMIS to total
5 households, and applies this ratio to the number of households in each CBG to
6 estimate the number of residential lines by CBG. It estimates the number of
7 business, special access, and payphone lines by distributing the corresponding
8 ARMIS numbers among CBGs proportionally to the number of employees in
9 each of the CBGs.

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

17

18 Q. WHAT FUNCTION IS PERFORMED IN THE DATA MODULE?

19 A. The Data Module uses CBG data and line totals to determine the quantity and
20 type of outside loop plant facilities required, based upon density and distance
21 of the CBG from the wire center. In doing so, it basically employs the same
22 methodology as does the BCM1, although there are a few exceptions, such as
23 1) as already discussed, the length of distribution cable is changed for the
24 highest and lowest line density zones; 2) the fiber-copper breakpoint -- that is,

1 the feeder length below which copper cable, and above which fiber cable, are
2 used -- becomes a user input; and 3) fiber cable is assumed to have a higher
3 equivalent line capacity than is assumed by BCM1. The HM also separately
4 considers the amounts and costs of underground and buried cable, whereas
5 they were combined in the BCM1. The Data Module also calculates outside
6 plant structure (poles, conduits) costs associated with placing and installing
7 cable under varying terrain and population density conditions.

8

9 Q. WHAT FUNCTION IS PERFORMED BY THE LOOP MODULE?

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

16

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

18 A. The Wire Center Module calculates wire center and interoffice facilities
19 investments. This module quantifies investments associated with end office
20 switches, wire centers, trunks, tandems (including operator tandems, and
21 operator positions), signaling links, signal transfer points (STPs), and service
22 control points (SCPs). Some of the elements it considers, such as the cost of
23 the SCPs and operator positions, are relevant only to unbundled network
24 elements; the remainder are germane to both unbundled elements and the cost

1 of basic local service. The module uses the total number of access lines, the
2 location of wire centers, and network traffic data to determine required
3 switching, trunking, and signaling investments.

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

11

12 Q. WHAT IS THE PURPOSE OF THE CONVERGENCE MODULE?

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

20

21 Q. PLEASE DESCRIBE THE EXPENSE MODULE.

22 A. The Expense Module uses the outputs from the Convergence Module to
23 determine annual capital carrying costs, operations and maintenance expenses,
24 and support expenses associated with the investments needed for a local

1 telecommunications network. This module uses the best publicly available
2 information to estimate future expenses and reports the annual cost for each
3 unbundled network element. The module requires as inputs appropriate
4 assumptions regarding the cost of capital (cost of debt, cost of equity, and
5 debt/equity ratio); the economic lives of various categories of network
6 equipment and facilities, and the relationship between investment and
7 expenses. It produces the appropriate unit cost of various unbundled network
8 elements and of basic exchange service. These units vary by type of element
9 and service: for instance, the cost of unbundled local switching is reported as
10 both cost per port and cost per minute of use; while the SCP cost unit is
11 messages. Basic local exchange service is reported as the cost per line per
12 month for the service, whose elements have been defined previously. The
13 results are reported by line density zone, using the ranges I have defined
14 previously.

15

16 Q. YOU PREVIOUSLY REFERRED TO HATFIELD MODEL VERSION 2.2,
17 RELEASE 1. PLEASE SUMMARIZE THE KEY DIFFERENCES
18 BETWEEN HATFIELD MODEL VERSION 2.2 RELEASE 1 AND
19 RELEASE 2.

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

- 22 - estimates the cost of basic local exchange service,
- 23 - tentatively provides a graphical user interface to facilitate the
- 24 setting of user inputs and running the model,

- 1 - provides an increased set of inputs that can be set by the user,
- 2 - uses a 1995 estimate of households by CBG, rather than 1990
- 3 census data,
- 4 - estimates the number of business, special access, and payphone
- 5 lines per CBG using a database containing employees per CBG,
- 6 - increases the length of distribution cable for the two highest-
- 7 density ranges, and decreases it for the least dense range,
- 8 - specifies cable costs on an as-installed basis, generally leading to
- 9 higher per-foot cable costs,
- 10 - separates structure costs from cable costs, rather than calculating
- 11 them as a multiplier of cable costs,
- 12 - places each serving area interface (the interface point between
- 13 feeder and distribution cable) inside the CBG it serves, rather
- 14 than at the edge of the CBG,
- 15 - refines the treatment of interoffice transport and signaling costs,
- 16 - provides a greater disaggregation of expense factors, for
- 17 instance, by considering underground and buried cable expenses
- 18 separately, and
- 19 - adds the estimated cost of local number portability.

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Section III: Florida-Specific Model Results

22

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

24

A. The inputs used to perform the run of the model used to develop costs for use

1 in this proceeding are attached as Exhibit DJW-2. As with all data, MCI is
2 continuing to evaluate the accuracy and validity of these inputs in order to
3 ensure the reliability of the cost information produced by the model.

4
5 Q. WHAT ARE THE RESULTS OF THE MODEL?

6 A. In Exhibit DJW-3, I have included the results of running the Hatfield Model to
7 develop costs for use in this proceeding. In summary, the results of MCI's
8 analysis are as follows:

9
10 **Hatfield Model Unbundled Network Element Summary**

11	Element	Unit Definition	Unit Cost
12	1. Network Interface Device	per line-per month	\$ 0.55
13	2. Loop Distribution	per line-per month	\$ 6.01
14	3. Loop Concentrator	per line-per month	\$ 2.39
15	4. Loop Feeder	per line-per month	\$ 2.30
16	5. End Office Switching		
17	Port	per line-per month	\$ 1.12
18	Usage	per minute	\$ 0.002
19	6. Signaling Links "A"	per link-per month	\$ 16.83
20	Signaling Links "D"	per link-per month	\$ 8.65
21	7. Signal Transfer Point	per message	\$ 0.00003
22	8. Signal Control Point	per message	\$ 0.00103
23	9. Common Transport	per minute	\$ 0.00086
24	10. Dedicated Transport	per DS0 - per month	\$ 3.60

1	11.	Tandem Switching	per minute	\$ 0.0007
2	12.	Operator Systems		\$ 4,232,244

3

4 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

5 A. Yes. However, I would like to reserve the right to update or supplement the
6 specific cost numbers in the event that this becomes necessary.

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Vita of Don J. Wood

914 Stream Valley Trail, Alpharetta, Georgia 30202 ■ (770) 475-9971, FAX (770) 475-9972

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.

Louisiana Public Service Commission

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

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

- Subdocket A (SCB Earnings Phase)
- Subdocket B (Generic Competition Phase)

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

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

Public Service Commission of Maryland

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

Maryland.

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

Mississippi Public Service Commission

Docket No. U-5086: In Re: MCI Telecommunications Corporation's Metered Use Service Option D (Prism I) and Option E (Prism II).

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

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

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

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

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

New York Public Service Commission

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

North Carolina Public Utilities Commission

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

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

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

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

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

Public Utilities Commission of Ohio

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

Oklahoma Corporation Commission

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

Public Utility Commission of Oregon

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

Pennsylvania Public Utilities Commission

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

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

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

Docket No. M-00940587: In Re: Investigation pursuant to Section 3005 of the Public Utility Code, 66 Pa. C. S. §3005, and the Commission's Opinion and Order at Docket No. P-930715, to establish standards and safeguards for competitive services, with

particular emphasis in the areas of cost allocations, cost studies, unbundling, and imputation, and to consider generic issues for future rulemaking.

South Carolina Public Service Commission

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

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

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

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

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

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

Tennessee Public Service Commission

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

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

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

Public Utility Commission of Texas

Docket No. 12879: Application of Southwestern Bell Telephone Company for

Expanded Interconnection for Special Access Services and Switched Transport Services and Unbundling of Special Access DS1 and DS3 Services Pursuant to P. U. C. Subst. R. 23.26.

Virginia State Corporation Commission

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

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

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

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

Washington Utilities and Transportation Commission

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

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

Public Service Commission of Wyoming

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

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

Public Service Commission of the District of Columbia

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

COMMENTS - FEDERAL COMMUNICATIONS COMMISSION

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

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

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

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

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

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

	density range								totals
	0 - 5	5 - 200	200 - 650	650 - 850	850 - 2550	> 2550			
total lines	2,808	139,040	220,599	73,530	692,197	1,033,771			2,161,946
business lines	793	23,548	33,886	15,613	133,968	299,430			507,238
residential lines	1,712	106,477	173,744	51,940	506,958	819,738			1,460,569
special access lines	283	8,407	12,097	5,574	47,826	106,896			181,088
households	1,487	91,284	148,920	44,519	434,524	531,190			1,251,884
buried distribution cable	\$ 3,381,001	\$ 50,103,181	\$ 33,570,895	\$ 8,829,032	\$ 6,829,032	\$ 4,075,044			\$ 144,682,689
buried distribution placement	\$ 535,280	\$ 7,587,090	\$ 4,108,363	\$ 1,449,181	\$ 1,449,181	\$ 1,481,800			\$ 40,016,571
NID, terminals, splices	\$ 108,240	\$ 8,314,831	\$ 10,230,440	\$ 3,147,453	\$ 3,147,453	\$ 89,615,045			\$ 89,615,045
DLC electronics	\$ 846,191	\$ 21,863,937	\$ 29,810,089	\$ 7,899,812	\$ 7,899,812	\$ 202,158,843			\$ 202,158,843
total DLC lines	2,808	124,119	179,088	46,531	387,111	452,140			
optical "SAI"	\$ 20,600	\$ 509,200	\$ 535,500	\$ 141,600	\$ 141,600	\$ 1,481,800			\$ 3,918,500
passive SAI	\$ -	\$ 32,600	\$ 69,400	\$ 40,000	\$ 434,500	\$ 854,600			\$ 1,431,100
distribution conduit, w/placement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			\$ 302,411,115
distribution pole inv	\$ 804,150	\$ 11,388,800	\$ 6,207,300	\$ 1,462,050	\$ 1,462,050	\$ 55,293,300			\$ 55,293,300
aerial distribution cable	\$ 3,055,455	\$ 45,548,346	\$ 30,518,998	\$ 6,208,211	\$ 6,208,211	\$ 167,485,914			\$ 167,485,914
underground distribution cable	\$ -	\$ -	\$ -	\$ -	\$ 8,498,825	\$ 30,728,338			\$ 30,728,338
aerial feeder cable	\$ 214,232	\$ 3,335,872	\$ 4,911,417	\$ 1,802,154	\$ 4,758,789	\$ 3,799,642			\$ 18,821,908
feeder pole investment	\$ 200,700	\$ 2,184,300	\$ 1,654,850	\$ 251,100	\$ 900,000	\$ 703,800			\$ 5,894,550
end office switching	\$ 537,303	\$ 20,179,998	\$ 24,585,405	\$ 7,968,842	\$ 7,968,842	\$ 230,698,040			\$ 230,698,040
end office wire center	\$ 114,738	\$ 3,991,400	\$ 5,091,392	\$ 1,728,124	\$ 1,728,124	\$ 55,447,358			\$ 55,447,358
local tandem switching	\$ 4,939	\$ 241,819	\$ 382,483	\$ 127,862	\$ 1,201,043	\$ 1,798,531			\$ 3,758,477
local tandem wire center	\$ 1,748	\$ 86,478	\$ 137,202	\$ 45,732	\$ 430,514	\$ 642,958			\$ 1,344,627
OS tandem switching	\$ 2,235	\$ 108,012	\$ 172,423	\$ 57,549	\$ 540,958	\$ 808,111			\$ 1,891,286
OS tandem wire center	\$ 2,835	\$ 140,383	\$ 222,731	\$ 74,240	\$ 698,696	\$ 1,043,760			\$ 2,182,838
OS trunks	\$ 5,428	\$ 189,339	\$ 272,986	\$ 77,457	\$ 728,058	\$ 771,664			\$ 2,044,931
operator position	\$ 3,039	\$ 150,487	\$ 238,778	\$ 79,589	\$ 749,239	\$ 1,118,990			\$ 2,340,102
common transport	\$ 18,975	\$ 673,408	\$ 978,684	\$ 277,652	\$ 2,813,678	\$ 2,773,849			\$ 7,338,023
dedicated transport	\$ 48,555	\$ 2,798,146	\$ 4,628,174	\$ 1,790,995	\$ 1,790,995	\$ 52,582,963			\$ 52,582,963
local direct trunking	\$ 11,466	\$ 593,578	\$ 948,312	\$ 310,701	\$ 2,940,510	\$ 4,250,030			
local tandem trunking	\$ 1,358	\$ 52,022	\$ 78,723	\$ 21,109	\$ 202,328	\$ 208,018			
STP	\$ 3,582	\$ 139,787	\$ 210,698	\$ 69,566	\$ 648,553	\$ 983,043			\$ 2,035,210
SCP	\$ 5,825	\$ 288,443	\$ 457,643	\$ 152,540	\$ 1,435,993	\$ 2,144,602			\$ 4,485,047
signaling links	\$ 1,903	\$ 23,949	\$ 18,288	\$ 4,985	\$ 37,171	\$ 36,607			\$ 122,883
feeder conduit/manhole, w/placement	\$ 270,580	\$ 3,103,837	\$ 2,441,188	\$ 1,932,372	\$ 1,932,372	\$ 320,861,207			\$ 320,861,207
underground feeder cable	\$ 30,805	\$ 426,947	\$ 555,919	\$ 991,863	\$ 991,863				
buried feeder placement	\$ 227,612	\$ 2,374,719	\$ 1,882,157	\$ 548,858	\$ 755,025	\$ 3,380,968			
total public telephone	\$ 9,723	\$ 893,900	\$ 1,200,153	\$ 530,320	\$ 4,578,381	\$ 8,542,762			\$ 15,585,239
total public lines	20	606	872	402	3,448	7,706			13,054
buried feeder cable	\$ 390,017	\$ 5,108,708	\$ 6,107,581	\$ 2,358,603	\$ 5,204,071	\$ 4,162,409			
NID investment per line	\$ 30.00								
terminal and splice investment per line	\$ 35.00								
average lines/business location	4								
local DEMs, thousands	24,817,464		local call attempts	5,587,700,000					
intrastate DEMs, thousands	3,747,130		call completion factor	0.70					
interstate DEMs, thousands	8,498,872		intraLATA calls completed	78,986,000					
total DEMs, thousands	37,063,266		interLATA intrastate calls comp	458,660,000					
intraLATA tandem fraction	0.20		interLATA interstate calls comp	970,059,000					
interLATA tandem fraction	0.20		fraction interoffice str shared w	0.25					
interoffice traffic fraction	0.65		trunk port investment, per port	\$ 100					
total dedicated access trunks	275,064		signaling port investment, per a	\$ 450					
total dedicated transport trunks	373,168		avg D link investment, per link	\$ 319					
total common trunks	21,668		business holding time multiplier	1.00					
state	FL		res holding time multiplier	1.00					
company	GTE FLORIDA INC		bus/res local DEMs	1.10					
fraction direct-routed local traffic	0.98		bus/res state DEMs	2.00					
max trunk usage, CCS	27.5		bus/res interstate DEMs	3.00					
average trunk utilization	0.3		total shared feeder/fo structure	\$ 4,258,345					
local interoffice traffic fraction	0.300		Vo serial structure fract of total	0.30					
local DEM fraction	0.650								
ISUP msg/interoffice call	6								
ISUP msg length	25								
TCAP msg/transaction	2								
TCAP msg length	100								
fraction of calls requiring TCAP	0.10								
average local direct route distance	10								
average intraLATA direct route distance	25								
average direct access route distance	15								
total signaling links	198								
drop investment per line	40								

Inputs

Cost of Capital Inputs

economic life and tax inputs

Debt fraction	0.45				
Cost of Debt	0.077	0.035	tax rate		0.40
Equity fraction	0.55		economic life -- 50 years maximum		
Cost of Equity	0.119	0.065	loop distribution		20
Overall Cost of Capital		10.01%	loop feeder		20
Weighted equity fraction	0.65		loop concentrator		10
			end office switching		14.3
corporate overhead factor	0.100		wire center		37
other taxes factor	0.050		tandem switching		14.3
operating state and local income tax factor	0.010		OS investment		8
billing/bill inquiry per line per month	\$ 1.22		transport facilities		19
directory listing per line per month	\$ 0.15		STP		14
service order processing fraction of 6623	0.346		SCP		14
forward-looking network operations factor	0.700		links		19
alternative CO switching factor	0.0269		public telephones		9
alternative circuit equipment factor	0.0153		general support		7
EO traffic-sensitive fraction	0.70				
per-line monthly LNP cost	\$ 0.25				
tandem-routed toll fraction	0.20				
tandem-routed local fraction	0.02				
interoffice local fraction	0.65				
State	Florida				
Company	GTE FLORIDA INC				
Carrier-carrier customer service, per line per year	\$ 1.56		Structure fraction assigned to telephone		
NID expense per line per year	\$ 3.00		aerial	underground	buried
DS-0/DS-1 crossover	24		distribution	0.33	0.33
DS-1/DS-3 crossover	28		feeder	0.33	0.33
Switch line circuit offset per DLC line	\$ 35.00				
Local call completion fraction	0.70				
Total local calls attempted	5,567,700,000				
Total intraLATA toll calls completed	76,986,000				
Total interLATA calls completed					
	intrastate	458,660,000			
	interstate	970,059,000			
Total local calls completed	3,897,390,000				
Total completed local interoffice calls	2,006,306,750				
Total completed local interoffice calls		0.371			

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Actuals for 1995 (\$000s)

	Investments	Expenses	calculated Factor	
Plant-Specific Operations Expenses				
TPIS - General Support				
2111 Land	\$ 21,245	\$ -		
2112 Motor Vehicles	\$ 38,358	\$ 1,500	0.039	
2113 Aircraft	\$ -	\$ 843		
2114 Special Purpose Vehicles	\$ -	\$ 3		
2115 Garage Work Equipment	\$ 1,238	\$ 56	0.045	
2116 Other Work Equipment	\$ 30,459	\$ (2,814)	-0.092	
2121 Buildings	\$ 209,752	\$ 29,988	0.143	Land & Bldg Exp Applied to Bldgs
2122 Furniture	\$ 10,163	\$ 2,282	0.223	
2123 Office Equipment	\$ 73,382	\$ 4,756	0.065	
2124 General Purpose Computers	\$ 77,230	\$ 58,415	0.756	
2110 Total Land & Support Assets	\$ 461,827	\$ 95,019	0.206	
TPIS - Central Office Switching				
2211 Analog Electronic Switching	\$ -	\$ 616	#DIV/0!	
2212 Digital Electronic Switching	\$ 874,593	\$ 54,233	0.062	0.0269 NET CO Switch Factor
2210 Total Central Office Switching	\$ 874,593	\$ 54,849	0.063	
2220 Operator Systems	\$ 16,586	\$ 4,482	0.269	
TPIS - Central Office Transmission				
2231 Satellite & Earth Station Facilities				
2231 Other Radio Facilities				
2231 Radio Systems				
2232 Circuit Equipment	\$ 510,908	\$ 5,223	0.0102	0.0153 alternative factor
2230 Total Central Office Transmission	\$ 510,908	\$ 5,223	0.0102	
TPIS - Information Orig/Term				
2311 Station Apparatus	\$ 25,446	\$ 841		
2321 Customer Premises Wiring	\$ -	\$ -		
2341 Large Private Branch Exchange	\$ -	\$ 144		
2351 Public Telephone Terminal Equipment	\$ 13,006	\$ 3,428	0.264	
2362 Other Terminal Equipment	\$ 47,821	\$ 19,781	0.415	
2310 Total Information Orig/Term	\$ 86,073	\$ 24,194	0.281	
TPIS - Cable & Wire Facilities				
2411 Poles	\$ 28,251	\$ 6,783	0.239	
2421 Aerial Cable	\$ 193,975	\$ 11,083	0.057	
2422 Underground Cable	\$ 345,927	\$ 2,577	0.007	
2423 Buried Cable	\$ 1,065,727	\$ 41,010	0.038	
2424 Submarine Cable				
2425 Deep Sea Cable				
2426 Intra-building Network Cable				
2431 Aerial Wire				
2441 Conduit Systems	\$ 244,839	\$ 368	0.002	
2410 Total Cable & Wire Facilities	\$ 1,878,719	\$ 61,801	0.033	0.0291166
240 Total TPIS (before amortizable assets)	\$ 3,828,706	\$ 245,548	0.064	
Plant Non-Specific Operations Expenses				
	Expenses	Investment	Factor	
6512 Provisioning Expenses	\$ 2,442	\$ 3,828,706	0.001	
6531 Power Expenses	\$ 6,486	\$ 3,828,706	0.002	7.81% all
6532 Network Administration	\$ 18,814	\$ 3,828,706	0.005	22.66% switching, interoffice
6533 Testing	\$ 25,473	\$ 3,828,706	0.007	30.87% all
6534 Plant Operations Administration	\$ 20,833	\$ 3,828,706	0.005	25.09% all
6535 Engineering	\$ 6,997	\$ 3,828,706	0.002	10.83% all
6540 Access Expense				
6530 Total Network Operations Expenses	\$ 83,045	\$ 3,828,706	0.022	per line network operations total lines (from net. invest. inputs) annual net ops per line
Network Support Factor Calculation				
	Expenses	Cable & Wire Inv	Factor	
2112 Motor Vehicles	\$ 1,500			
2113 Aircraft	\$ 843			
2114 Special Purpose Vehicles	\$ 3			
2115 Garage Work Equipment	\$ 56			
2116 Other Work Equipment	\$ (2,814)			
Total Network Support	\$ (412)	\$ 1,878,719	-0.000219	
Customer Operations Expenses				
	Expenses	Net Revenues	Factor	
6611 Product Management *	\$ 6,575	\$ 0.2534 \$ 765,307	0.00859	
6612 Sales *	\$ 18,282	\$ 0.7047 \$ 765,307	0.02389	
6613 Product Advertising	\$ 12,468	\$ 765,307	0.01629	
6610 Total Marketing Expenses	\$ 37,325		0.04877	
6621 Call Completion Service	\$ 11,343	\$ 765,307	0.01482	
6622 Number Services	\$ 14,998	\$ 0.5781 \$ 765,307	0.01980	
6623 Customer Services	\$ 72,480	\$ 2.7938 \$ 765,307	0.09471	
6620 Total Services Expenses	\$ 73,743	\$ 3.75	0.12913	
Billing/bill inquiry (per line/month)	\$ 1.22			
Service order processing fraction of 6623	\$ 0.348			
Directory listing (per line/month)	\$ 0.15			
700 Total Customer Operations Expenses	\$ 111,068	\$ 765,307	0.14513	(=total ARMIS 6530/total lines) 2,161,945 \$ 38.41

Corporate Operations Expenses

	Expenses	Revenues	Factor
6711 Executive	\$ 4,961	\$ 765,307	0.006482
6712 Planning	\$ 3,158	\$ 765,307	0.004126
6710 Total Executive & Planning	\$ 8,119	\$ 765,307	0.010609
6721 Accounting & Finance	\$ 14,439	\$ 765,307	0.018867
6722 External Relations	\$ 8,523	\$ 765,307	0.011137
6723 Human Resources	\$ 11,432	\$ 765,307	0.014938
6724 Information Management	\$ 65,800	\$ 765,307	0.085979
6725 Legal	\$ 2,170	\$ 765,307	0.002835
6726 Procurement	\$ 1,730	\$ 765,307	0.002281
6727 Research & Development	\$ 4,584	\$ 765,307	0.005990
6728 Other General & Administrative	\$ 48,961	\$ 765,307	0.063978
6720 Total General & Administrative	\$ 157,639	\$ 765,307	0.205981
710 Total Corporate Operations Expense	\$ 165,758	\$ 765,307	0.10
720 Total Operating Expenses note: does not include dep/amort	\$ 607,861		

Misc Expenses Calculation

	2122 Furniture	2123 Ofc Eqpt	2124 GP Compr
Investment	\$ 10,183	\$ 73,382	\$ 77,230
Investment/TPIS	0.00285	0.01917	0.02017
Expense	\$ 2,262	\$ 4,756	\$ 58,415
Expense Factor	0.22257	0.06481	0.75638
Model TPIS	\$ 1,827,606	\$ 1,827,606	\$ 1,827,606
Calculated Investment	\$ 4,851	\$ 35,028	\$ 36,865
Calculated Expense	\$ 1,080	\$ 2,270	\$ 27,884
Subtotal (\$s)	\$ 31,233,977		
2351 Pub Tel Eqpt			
Investment	\$ 13,006		
Expense	\$ 3,428	c141,c130	
Expense Factor	0.263571		
Model Investment	\$ 1,423,519,942		
Calculated Expense	\$ 375,198,090		
Subtotal (\$s)	\$ -		
Total Misc Expense	\$ 31,233,977		

Other Taxes & Uncollectibles Calculation

	Expenses	Net Revenues	Factor
7230 Operating State & Local Income Tax	\$ 15,421	\$ (83,181)	0.0100
7240 Operating Other Taxes	\$ 68,913	\$ (83,181)	0.0500
5300 Uncollectible Revenues	\$ 26,126	\$ 765,307	0.0341
retail			0.0291
wholesale			0.0086
Ratio of Net Plant to TPIS			
TPIS	\$ 3,828,708		
Net Plant	\$ 3,828,708		
Ratio	100.00%		
Model Investment	\$ 1,827,606		
Model % of Net Plant	48%		
Model % of TPIS	48%		

Network Expense

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

Notes:

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

Actual Revenue

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Basic Local Service		
5001 Basic Area	\$ 431,231	37.41%
5002 Optional Extended Area	\$ (11)	0.00%
5003 Cellular Mobile	\$ -	0.00%
5004 Other Mobile Svcs	\$ 605	0.05%
Total Basic Local Service	\$ 431,825	37.47%
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	\$ 14,468	1.26%
Local Private Line Revenue		
5040 Interstate	\$ -	0.00%
Intrastate	\$ -	0.00%
Total Private Line	\$ 17,852	1.55%
Customer Premises Revenue		
5050 Station Apparatus	\$ -	0.00%
Customer Premises Wiring	\$ -	0.00%
Total Customer Premises	\$ 323	0.03%
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	\$ 151,178	13.12%
Total Local Network Service Revenue		
Interstate	\$ -	0.00%
Intrastate	\$ 615,646	53.41%
Total Revenue	\$ 1,152,593	100.00%

Actual Revenue

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Actual 1995 Revenue

		% of total
Interstate Access		
5081 End User	\$ 94,026	8.16%
5082 Switched Access	\$ 177,079	15.36%
5083 Special Access	\$ 30,353	2.63%
Total Inter Access	\$ 301,458	26.15%
State Access Revenue		
5084 End User	\$ -	0.00%
5084 Switched Access	\$ -	0.00%
5084 Special Access	\$ 154,594	13.41%
Total State Access	\$ 154,594	13.41%
Total Access Revenue	\$ 456,052	39.57%
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	\$ 58,580	5.08%
Unidirectional LD Revenue		
5110 Interstate	\$ -	0.00%
Intrastate	\$ -	0.00%
Total	\$ 2,005	0.17%
LD Private Network Revenue		
5120 Interstate	\$ -	0.00%
Intrastate	\$ -	0.00%
Total	\$ 18,045	1.57%
Other Long Distance Revenue		
5160 Interstate	\$ -	0.00%
Intrastate	\$ -	0.00%
Total	\$ 2,265	0.20%
Total Long Distance Network Rev		
Interstate	\$ -	0.00%
Intrastate	\$ -	0.00%
Total	\$ 80,895	7.02%

General Support

Calculation of Investment in General Support Items

Calculated Investment (\$)
(from sheet '95 Actuals)

2122 Furniture	4,851,236
2123 Office Equipment	35,028,376
2124 General Purpose Comp	36,865,191
\$	76,744,803

Return, Depreciation, & Income Tax

Year	1	2	3	4	5	6	7	8	
Total Investment	\$ 76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803
Accumulated Depreciation		10,963,543	21,927,087	32,890,630	43,854,173	54,817,716	65,781,260	76,744,803	87,708,346
Net Plant		65,781,260	54,817,716	43,854,173	32,890,630	21,927,087	10,963,543	0	-10,963,543
Depreciable Life	7								
Rate of Return	0.100								
Return Amount		6,584,704	5,487,253	4,389,803	3,292,352	2,194,901	1,097,451	0	-1,097,451
Income Tax Rate	0.40								
Income Tax Gross-Up		2,633,882	2,194,901	1,755,921	1,316,941	877,961	438,980	0	-438,980
Total Return		20,182,129	18,645,698	17,109,267	15,572,836	14,036,405	12,499,974	10,963,543	0
Discount Rate	0.100								
Present Value		78,622,176							
Present Value Factor		4.867							
Levelized Capital Cost		\$ 16,154,745							
CapCost % of Investment	21.05%								

General Support

9	10	11	12	13	14	15	16	17	18	19
\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803
98,671,890	109,635,433	120,598,976	131,562,520	142,526,063	153,489,606	164,453,149	175,416,693	186,380,236	197,343,779	208,307,323
-21,927,087	-32,890,630	-43,854,173	-54,817,716	-65,781,260	-76,744,803	-87,708,346	-98,671,890	-109,635,433	-120,598,976	-131,562,520
-2,194,901	-3,292,352	-4,389,803	-5,487,253	-6,584,704	-7,682,155	-8,779,605	-9,877,056	-10,974,507	-12,071,958	-13,169,408
-877,961	-1,316,941	-1,755,921	-2,194,901	-2,633,882	-3,072,862	-3,511,842	-3,950,822	-4,389,803	-4,828,783	-5,267,763
0	0	0	0	0	0	0	0	0	0	0

General Support

20	21	22	23	24	25	26	27	28	29	30
\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803
219,270,866	230,234,409	241,197,953	252,161,496	263,125,039	274,088,582	285,052,126	296,015,669	306,979,212	317,942,756	328,906,299
-142,526,063	-153,489,606	-164,453,149	-175,416,693	-186,380,236	-197,343,779	-208,307,323	-219,270,866	-230,234,409	-241,197,953	-252,161,496
-14,266,859	-15,364,310	-16,461,760	-17,559,211	-18,656,662	-19,754,112	-20,851,563	-21,949,014	-23,046,464	-24,143,915	-25,241,366
-5,706,744	-6,145,724	-6,584,704	-7,023,684	-7,462,665	-7,901,645	-8,340,625	-8,779,605	-9,218,586	-9,657,566	-10,096,546
0	0	0	0	0	0	0	0	0	0	0

General Support

31	32	33	34	35	36	37	38	39	40	41	42
\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803
339,869,842	350,833,386	361,796,929	372,760,472	383,724,015	394,687,559	405,651,102	416,614,645	427,578,189	438,541,732	449,505,275	460,468,819
-263,125,039	-274,088,582	-285,052,126	-296,015,669	-306,979,212	-317,942,756	-328,906,299	-339,869,842	-350,833,386	-361,796,929	-372,760,472	-383,724,015
-26,338,816	-27,436,267	-28,533,718	-29,631,168	-30,728,619	-31,826,070	-32,923,521	-34,020,971	-35,118,422	-36,215,873	-37,313,323	-38,410,774
-10,535,527	-10,974,507	-11,413,487	-11,852,467	-12,291,448	-12,730,428	-13,169,408	-13,608,388	-14,047,369	-14,486,349	-14,925,329	-15,364,310
0	0	0	0	0	0	0	0	0	0	0	0

General Support

43	44	45	46	47	48	49	50
\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803	\$76,744,803
471,432,362	482,395,905	493,359,448	504,322,992	515,286,535	526,250,078	537,213,622	548,177,165
-394,687,559	-405,651,102	-416,614,645	-427,578,189	-438,541,732	-449,505,275	-460,468,819	-471,432,362
-39,508,225	-40,605,675	-41,703,126	-42,800,577	-43,898,027	-44,995,478	-46,092,929	-47,190,379
-15,803,290	-16,242,270	-16,681,250	-17,120,231	-17,559,211	-17,998,191	-18,437,171	-18,876,152
0	0	0	0	0	0	0	0

Expenses by Service

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2650 lines/sq mi	> 2650 lines/sq mi	Totals	
Network-Related Expenses								
Distribution								
Annual Capital Cost	\$ 952,762	\$ 15,186,596	\$ 11,381,726	\$ 2,584,969	\$ 21,841,725	\$ 31,891,801	\$ 83,839,579	
Network Expenses	\$ 356,720	\$ 5,537,791	\$ 3,928,027	\$ 860,872	\$ 5,968,208	\$ 6,803,717	\$ 23,553,334	
Direct expense	\$ 1,309,482	\$ 20,724,386	\$ 15,307,753	\$ 3,445,840	\$ 27,809,933	\$ 38,795,517	\$ 107,392,912	42.42%
Investment	\$ 7,033,311	\$ 112,107,785	\$ 84,020,156	\$ 19,082,297	\$ 161,236,099	\$ 235,425,981	\$ 618,905,629	
Support expenses	\$ 422,907	\$ 7,755,390	\$ 6,551,527	\$ 1,580,536	\$ 12,809,367	\$ 18,256,375	\$ 47,376,102	
Subtotal, with misc spt	\$ 1,732,389	\$ 28,479,777	\$ 21,859,280	\$ 5,026,376	\$ 40,819,300	\$ 57,051,893	\$ 154,769,014	
Total, with var overhead	\$ 1,805,627	\$ 31,327,754	\$ 24,045,208	\$ 5,529,014	\$ 44,681,230	\$ 62,757,082	\$ 170,245,915	
Concentrator								
Annual Capital Cost	\$ 149,233	\$ 3,826,544	\$ 5,236,465	\$ 1,381,355	\$ 11,529,632	\$ 13,582,931	\$ 35,726,161	
Network Expenses	\$ 13,262	\$ 339,798	\$ 484,805	\$ 123,332	\$ 1,021,194	\$ 1,201,255	\$ 3,163,644	
Direct expense	\$ 162,495	\$ 4,166,342	\$ 5,701,270	\$ 1,514,686	\$ 12,550,826	\$ 14,794,186	\$ 38,889,805	15.36%
Investment	\$ 866,791	\$ 22,225,737	\$ 30,414,989	\$ 8,081,412	\$ 66,967,623	\$ 78,951,891	\$ 207,508,443	
Support expenses	\$ 52,479	\$ 1,559,111	\$ 2,440,072	\$ 694,755	\$ 5,780,961	\$ 6,981,841	\$ 17,489,219	
Subtotal, with misc spt	\$ 214,974	\$ 5,725,453	\$ 8,141,342	\$ 2,209,441	\$ 18,331,787	\$ 21,756,027	\$ 56,379,024	
Total, with var overhead	\$ 236,471	\$ 6,297,998	\$ 8,955,478	\$ 2,430,386	\$ 20,164,968	\$ 23,931,630	\$ 62,016,926	
Feeder								
Annual Capital Cost	\$ 111,013	\$ 1,476,301	\$ 1,774,657	\$ 810,341	\$ 10,838,299	\$ 19,830,118	\$ 34,840,729	
Network Expenses	\$ 32,715	\$ 443,897	\$ 551,208	\$ 193,495	\$ 576,765	\$ 491,893	\$ 2,289,972	
Direct expense	\$ 143,728	\$ 1,920,197	\$ 2,325,865	\$ 1,003,836	\$ 11,415,063	\$ 20,322,011	\$ 37,130,700	14.67%
Investment	\$ 819,500	\$ 10,896,086	\$ 13,100,559	\$ 5,981,958	\$ 80,006,561	\$ 146,386,369	\$ 257,195,032	
Support expenses	\$ 46,418	\$ 718,568	\$ 995,441	\$ 460,439	\$ 5,257,624	\$ 9,563,122	\$ 17,041,812	
Subtotal, with misc spt	\$ 190,146	\$ 2,636,765	\$ 3,321,307	\$ 1,464,275	\$ 16,872,887	\$ 29,885,132	\$ 54,172,512	
Total, with var overhead	\$ 209,160	\$ 2,902,642	\$ 3,853,437	\$ 1,610,702	\$ 18,340,176	\$ 32,873,645	\$ 59,589,763	
End Office Switching								
Annual Capital Cost	\$ 79,365	\$ 2,841,635	\$ 3,355,035	\$ 1,156,360	\$ 10,874,785	\$ 16,724,953	\$ 35,032,133	
Network Expenses	\$ 28,219	\$ 996,820	\$ 1,220,908	\$ 417,703	\$ 4,108,638	\$ 6,241,319	\$ 13,013,607	
Direct expense	\$ 107,584	\$ 3,838,455	\$ 4,575,943	\$ 1,574,083	\$ 14,983,423	\$ 22,966,272	\$ 48,045,741	18.98%
Investment	\$ 553,762	\$ 19,827,226	\$ 23,409,423	\$ 8,068,387	\$ 75,877,726	\$ 116,696,691	\$ 244,433,214	
Support expenses	\$ 49,813	\$ 2,149,357	\$ 3,031,358	\$ 1,075,891	\$ 10,264,775	\$ 15,795,733	\$ 32,366,928	
Subtotal, with misc spt	\$ 157,397	\$ 5,987,812	\$ 7,607,301	\$ 2,649,955	\$ 25,248,198	\$ 38,762,005	\$ 80,412,669	
Total, with var overhead	\$ 173,137	\$ 6,586,594	\$ 8,368,031	\$ 2,914,950	\$ 27,773,018	\$ 42,638,206	\$ 88,453,936	
Signaling								
Annual Capital Cost	\$ 1,893	\$ 67,670	\$ 102,760	\$ 33,983	\$ 317,534	\$ 470,565	\$ 994,205	
Network Expenses	\$ 308	\$ 12,218	\$ 18,511	\$ 6,119	\$ 57,157	\$ 84,682	\$ 178,973	
Direct expense	\$ 2,001	\$ 79,886	\$ 121,271	\$ 40,102	\$ 374,690	\$ 555,227	\$ 1,173,177	0.46%
Investment	\$ 11,311	\$ 452,159	\$ 686,829	\$ 227,071	\$ 2,121,718	\$ 3,144,252	\$ 6,643,140	
Support expenses	\$ 927	\$ 44,732	\$ 80,337	\$ 27,411	\$ 256,691	\$ 381,874	\$ 791,971	
Subtotal, with misc spt	\$ 2,928	\$ 124,618	\$ 201,607	\$ 67,513	\$ 631,382	\$ 937,100	\$ 1,965,148	
Total, with var overhead	\$ 3,221	\$ 137,080	\$ 221,768	\$ 74,264	\$ 694,520	\$ 1,030,810	\$ 2,161,683	
Dedicated Transport								
Annual Capital Cost	\$ 6,652	\$ 383,319	\$ 633,742	\$ 245,349	\$ 2,200,905	\$ 3,733,400	\$ 7,203,368	
Network Expenses	\$ 1,414	\$ 81,472	\$ 134,698	\$ 52,148	\$ 467,790	\$ 793,513	\$ 1,531,035	
Direct expense	\$ 8,065	\$ 484,792	\$ 768,440	\$ 297,497	\$ 2,868,695	\$ 4,526,914	\$ 8,734,404	3.45%
Investment	\$ 48,555	\$ 2,798,146	\$ 4,826,174	\$ 1,780,995	\$ 16,066,113	\$ 27,252,980	\$ 52,582,963	
Support expenses	\$ 3,734	\$ 280,262	\$ 509,057	\$ 203,343	\$ 1,828,258	\$ 3,113,519	\$ 5,918,173	
Subtotal, with misc spt	\$ 11,800	\$ 725,054	\$ 1,277,498	\$ 500,840	\$ 4,496,853	\$ 7,640,432	\$ 14,852,577	
Total, with var overhead	\$ 12,960	\$ 797,559	\$ 1,405,248	\$ 550,924	\$ 4,946,649	\$ 8,404,475	\$ 16,117,834	
Common Transport								

Expenses by Service

	0 - 5	5 - 200	200 - 650	650 - 850	850 - 2550	> 2550	Totals	
	lines/sq mi	lines/sq mi	lines/sq mi	lines/sq mi	lines/sq mi	lines/sq mi		
Annual Capital Cost	\$ 2,599	\$ 92,250	\$ 134,068	\$ 38,036	\$ 358,049	\$ 379,964	\$ 1,004,966	
Network Expenses	\$ 552	\$ 19,607	\$ 28,485	\$ 8,084	\$ 78,101	\$ 80,759	\$ 213,600	
Direct expense	\$ 3,152	\$ 111,858	\$ 162,563	\$ 48,120	\$ 434,150	\$ 460,723	\$ 1,218,566	0.48%
Investment	\$ 18,975	\$ 673,408	\$ 978,664	\$ 277,652	\$ 2,613,676	\$ 2,773,649	\$ 7,338,023	
Support expenses	\$ 1,459	\$ 62,635	\$ 107,891	\$ 31,524	\$ 297,426	\$ 316,876	\$ 817,810	
Subtotal, with misc spt	\$ 4,811	\$ 174,493	\$ 270,254	\$ 77,644	\$ 731,578	\$ 777,598	\$ 2,036,176	
Total, with var overhead	\$ 5,072	\$ 191,942	\$ 297,279	\$ 85,408	\$ 804,733	\$ 855,358	\$ 2,239,793	
Tandem Switching								
Annual Capital Cost	\$ 942	\$ 46,217	\$ 73,205	\$ 24,453	\$ 229,827	\$ 343,917	\$ 718,561	
Network Expenses	\$ 383	\$ 19,867	\$ 29,911	\$ 9,980	\$ 93,879	\$ 140,334	\$ 293,353	
Direct expense	\$ 1,324	\$ 65,084	\$ 103,116	\$ 34,433	\$ 323,706	\$ 484,251	\$ 1,011,814	0.40%
Investment	\$ 8,885	\$ 328,095	\$ 519,686	\$ 173,594	\$ 1,631,557	\$ 2,441,497	\$ 5,101,104	
Support expenses	\$ 813	\$ 36,444	\$ 68,310	\$ 23,535	\$ 221,763	\$ 333,058	\$ 683,723	
Subtotal, with misc spt	\$ 1,937	\$ 101,528	\$ 171,426	\$ 57,968	\$ 545,489	\$ 817,308	\$ 1,695,638	
Total, with var overhead	\$ 2,131	\$ 111,681	\$ 188,568	\$ 63,765	\$ 600,016	\$ 899,040	\$ 1,865,202	
Operator Systems								
Annual Capital Cost	\$ 2,617	\$ 113,918	\$ 175,337	\$ 55,841	\$ 525,313	\$ 723,741	\$ 1,596,767	
Network Expenses	\$ 1,441	\$ 69,009	\$ 108,677	\$ 35,832	\$ 337,264	\$ 494,533	\$ 1,046,758	
Direct expense	\$ 4,058	\$ 182,927	\$ 284,015	\$ 91,673	\$ 862,577	\$ 1,218,274	\$ 2,643,525	1.04%
Investment	\$ 13,536	\$ 506,231	\$ 906,818	\$ 288,835	\$ 2,717,139	\$ 3,743,495	\$ 8,259,154	
Support expenses	\$ 1,311	\$ 68,454	\$ 121,555	\$ 42,049	\$ 397,308	\$ 573,295	\$ 1,203,970	
Subtotal, with misc spt	\$ 5,369	\$ 251,382	\$ 405,569	\$ 133,722	\$ 1,259,883	\$ 1,791,568	\$ 3,847,494	
Total, with var overhead	\$ 5,906	\$ 276,520	\$ 446,126	\$ 147,094	\$ 1,385,871	\$ 1,970,726	\$ 4,232,244	
Public Telephone								
Annual Capital Cost	\$ 1,784	\$ 125,916	\$ 217,782	\$ 96,233	\$ 830,802	\$ 1,550,186	\$ 2,822,684	
Network Expenses	\$ 2,563	\$ 182,892	\$ 316,325	\$ 139,777	\$ 1,208,727	\$ 2,251,621	\$ 4,099,905	
Direct expense	\$ 4,327	\$ 308,808	\$ 534,107	\$ 236,010	\$ 2,037,529	\$ 3,801,808	\$ 6,922,568	2.73%
Investment	\$ 9,723	\$ 693,900	\$ 1,200,153	\$ 530,320	\$ 4,578,381	\$ 8,542,762	\$ 15,555,239	
Support expenses	\$ 1,397	\$ 115,561	\$ 228,591	\$ 108,253	\$ 938,494	\$ 1,789,053	\$ 3,181,349	
Subtotal, with misc spt	\$ 5,724	\$ 424,369	\$ 762,898	\$ 344,263	\$ 2,976,023	\$ 5,590,861	\$ 10,103,938	
Total, with var overhead	\$ 6,297	\$ 466,806	\$ 838,968	\$ 378,689	\$ 3,273,625	\$ 6,149,847	\$ 11,114,332	
Totals								
Annual Capital Cost	\$ 1,308,840	\$ 24,160,366	\$ 23,084,778	\$ 6,436,921	\$ 59,546,871	\$ 89,241,578	\$ 203,779,152	
Network Expenses	\$ 437,577	\$ 7,702,369	\$ 6,799,566	\$ 1,847,341	\$ 13,913,722	\$ 18,683,605	\$ 49,384,180	
Total	\$ 1,746,217	\$ 31,862,735	\$ 29,884,344	\$ 8,284,262	\$ 73,460,593	\$ 107,925,182	\$ 253,163,332	100.00%
Investment	\$ 9,382,148	\$ 170,593,773	\$ 159,863,350	\$ 44,502,523	\$ 413,818,592	\$ 625,359,557	\$ 1,423,519,942	
Supporting Network Expenses								
Capital Cost - Genl Support	\$ 94,405	\$ 1,612,517	\$ 1,418,917	\$ 398,927	\$ 4,396,311	\$ 8,233,668	\$ 16,154,745	
Network Operations	\$ 58,396	\$ 2,891,588	\$ 4,587,779	\$ 1,529,184	\$ 14,395,544	\$ 21,499,209	\$ 44,961,700	
Network Support	\$ (943)	\$ (17,301)	\$ (17,171)	\$ (4,625)	\$ (41,598)	\$ (60,483)	\$ (142,123)	
Other Taxes	\$ 135,341	\$ 2,565,220	\$ 2,500,085	\$ 707,946	\$ 6,285,987	\$ 9,298,178	\$ 21,492,757	
Misc Expenses	\$ 278,754	\$ 4,871,512	\$ 4,300,517	\$ 1,168,386	\$ 8,900,002	\$ 11,818,807	\$ 31,233,977	
Subtotal	\$ 563,953	\$ 11,923,535	\$ 12,790,125	\$ 3,799,819	\$ 33,836,245	\$ 50,787,379	\$ 113,701,057	
Carrier-carrier customer svc	\$ 4,380	\$ 216,902	\$ 344,135	\$ 114,706	\$ 1,079,828	\$ 1,612,683	\$ 3,372,634	
Interoffice/Switching Net Ops	\$ 17,105	\$ 848,980	\$ 1,343,813	\$ 447,918	\$ 4,218,621	\$ 6,297,366	\$ 13,169,800	
Interoffice/Sw Exp	\$ 122,127	\$ 4,560,074	\$ 5,731,333	\$ 1,992,216	\$ 18,784,665	\$ 28,693,386	\$ 60,183,801	
Total Network Costs	\$ 2,327,275	\$ 44,633,250	\$ 44,018,282	\$ 12,531,996	\$ 111,513,458	\$ 165,009,927	\$ 380,034,189	
Other costs								

Expenses by Service

	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	\$ 135,341	\$ 2,565,220	\$ 2,500,085	\$ 707,946	\$ 6,285,987	\$ 9,298,178	\$ 21,492,757
<i>USF calculations</i>							
Capital cost	\$ 1,262,482	\$ 22,285,140	\$ 20,551,788	\$ 5,527,552	\$ 51,179,417	\$ 75,979,126	\$ 176,785,506
Network expenses	\$ 419,930	\$ 6,936,100	\$ 5,701,945	\$ 1,437,119	\$ 10,114,194	\$ 12,458,198	\$ 37,067,487
unbundled network expenses	\$ 437,577	\$ 7,702,369	\$ 6,799,566	\$ 1,847,341	\$ 13,913,722	\$ 18,683,605	\$ 49,384,180
USF/unbundled expenses	96.0%	90.1%	83.9%	77.8%	72.7%	66.7%	75.1%
USF/unbundled capital cost	96.5%	92.2%	89.0%	85.9%	85.9%	85.1%	86.8%
Capital cost -- gen spt	\$ 91,075	\$ 1,487,360	\$ 1,263,226	\$ 342,569	\$ 3,778,546	\$ 7,010,038	\$ 13,972,815
loop	\$ 87,602	\$ 1,369,009	\$ 1,129,450	\$ 296,245	\$ 3,262,426	\$ 6,033,328	\$ 12,178,060
EO switching	\$ 3,321	\$ 111,556	\$ 123,741	\$ 43,043	\$ 479,393	\$ 912,059	\$ 1,673,112
signaling	\$ 20	\$ 573	\$ 753	\$ 247	\$ 2,895	\$ 4,860	\$ 9,150
transport	\$ 132	\$ 6,223	\$ 9,282	\$ 3,034	\$ 34,032	\$ 59,791	\$ 112,493
Network operations	\$ 72,456	\$ 3,366,637	\$ 4,974,084	\$ 1,538,064	\$ 13,529,597	\$ 18,534,711	\$ 42,015,549
loop	\$ 69,694	\$ 3,096,748	\$ 4,447,330	\$ 1,330,078	\$ 11,681,559	\$ 15,952,265	\$ 36,679,673
EO switching	\$ 2,842	\$ 252,507	\$ 487,242	\$ 193,252	\$ 1,716,531	\$ 2,411,507	\$ 5,063,681
signaling	\$ 16	\$ 1,297	\$ 2,965	\$ 1,111	\$ 9,651	\$ 12,851	\$ 27,891
transport	\$ 105	\$ 14,085	\$ 36,547	\$ 13,624	\$ 121,858	\$ 158,088	\$ 344,305
Network support	\$ (943)	\$ (17,301)	\$ (17,171)	\$ (4,825)	\$ (41,599)	\$ (60,483)	\$ (142,123)
loop	\$ (907)	\$ (15,925)	\$ (15,353)	\$ (3,999)	\$ (35,917)	\$ (52,056)	\$ (124,157)
EO switching	\$ (34)	\$ (1,298)	\$ (1,682)	\$ (581)	\$ (5,278)	\$ (7,869)	\$ (16,742)
signaling	\$ (0)	\$ (7)	\$ (10)	\$ (3)	\$ (30)	\$ (42)	\$ (92)
transport	\$ (1)	\$ (72)	\$ (126)	\$ (41)	\$ (375)	\$ (518)	\$ (1,131)
Misc expenses	\$ 265,593	\$ 4,386,870	\$ 3,606,305	\$ 908,934	\$ 6,396,917	\$ 7,879,428	\$ 23,444,047
loop	\$ 255,465	\$ 4,037,799	\$ 3,224,398	\$ 786,023	\$ 5,523,148	\$ 6,781,585	\$ 20,608,418
EO switching	\$ 9,684	\$ 329,027	\$ 353,260	\$ 114,204	\$ 811,592	\$ 1,025,174	\$ 2,842,940
signaling	\$ 60	\$ 1,690	\$ 2,150	\$ 656	\$ 4,563	\$ 5,463	\$ 14,582
transport	\$ 384	\$ 18,353	\$ 26,497	\$ 8,051	\$ 57,815	\$ 67,208	\$ 178,107
USF investment ratios							
loop	96.2%	92.0%	89.4%	86.5%	86.3%	86.1%	
EO switching	3.6%	7.5%	9.8%	12.6%	12.7%	13.0%	
signaling	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	
transport	0.1%	0.4%	0.7%	0.9%	0.9%	0.9%	
total USF investment	\$ 9,065,285	\$ 157,786,994	\$ 142,641,388	\$ 38,328,697	\$ 356,971,865	\$ 535,355,479	

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	\$ 285,370	\$ 3,758,238	\$ 2,048,409	\$ 482,477	\$ 3,795,066	\$ 7,897,230	\$ 18,246,789
total buried cable	\$ 3,537,637	\$ 52,600,320	\$ 34,926,655	\$ 7,307,262	\$ 51,430,853	\$ 8,085,430	\$ 157,888,158
total w/g cable	\$ -	\$ -	\$ -	\$ -	\$ 8,498,825	\$ 22,227,511	\$ 30,726,336
total conduit	\$ -	\$ -	\$ -	\$ -	\$ 14,374,439	\$ 85,421,229	\$ 99,795,668
total aerial cable	\$ 3,055,455	\$ 45,548,346	\$ 30,518,996	\$ 6,208,211	\$ 33,995,299	\$ 48,159,607	\$ 167,485,914
total drop cable	\$ 66,609	\$ 3,886,050	\$ 6,295,656	\$ 1,936,894	\$ 18,720,616	\$ 24,241,895	\$ 55,147,720
total muxes and digital terminals							\$ -
total NID, terminal and splice	\$ 108,240	\$ 6,314,831	\$ 10,230,440	\$ 3,147,453	\$ 30,421,001	\$ 39,393,080	\$ 89,615,045
ROW fees							\$ -
TOTAL	\$ 7,033,311 1.14%	\$ 112,107,785 18.11%	\$ 84,020,156 13.58%	\$ 19,082,297 3.08%	\$ 161,236,099 26.05%	\$ 235,425,981 38.04%	\$ 618,905,629 100.00%

Cost of Capital	Year	1	2	3	4	5	6
Total Investment	\$ 618,905,629	\$ 618,905,629	\$ 618,905,629	\$ 618,905,629	\$ 618,905,629	\$ 618,905,629	\$ 618,905,629
Accumulated Depreciation		30,945,281	61,890,563	92,835,844	123,781,126	154,726,407	185,671,689
Net Plant		587,960,348	557,015,067	526,069,785	495,124,504	464,179,222	433,233,941
Depreciable Life	20						
Rate of Return	0.100						
Return Amount		58,854,831	55,757,208	52,659,585	49,561,863	46,464,340	43,366,717
Income Tax Rate	0.40						
Income Tax Gross-Up		21,580,105	20,444,310	19,308,515	18,172,720	17,036,925	15,901,130
Total Return		111,380,217	107,146,799	102,913,382	98,679,864	94,446,546	90,213,129
Discount Rate	0.100						
Present Value		713,286,678					
Present Value Factor		8.508					
Levelized Capital Cost	\$	83,839,579	0.135464237				

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
total switching, installed	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
total interoffice transmission	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
total pole investment	\$ 63,527	\$ 899,684	\$ 490,368	\$ 115,500	\$ 908,500	\$ 1,890,516	\$ 4,368,094
total buried cable	\$ 113,124	\$ 1,715,243	\$ 1,172,844	\$ 230,982	\$ 1,536,611	\$ 107,818	\$ 4,878,602
total w/g cable	\$ -	\$ -	\$ -	\$ -	\$ 15,622	\$ 26,601	\$ 42,223
total conduit	\$ -	\$ -	\$ -	\$ -	\$ 21,605	\$ 128,391	\$ 149,996
total aerial cable	\$ 174,577	\$ 2,602,461	\$ 1,743,740	\$ 354,714	\$ 1,942,363	\$ 2,751,858	\$ 9,569,514
total drop cable	\$ 496	\$ 28,949	\$ 46,900	\$ 14,429	\$ 139,480	\$ 180,591	\$ 410,826
total muxes and digital terminals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
total NID	\$ 4,996	\$ 291,454	\$ 472,174	\$ 145,267	\$ 1,404,048	\$ 1,818,142	\$ 4,136,079
Expense Summary							
Annual Capital Cost	\$ 952,762	\$ 15,196,596	\$ 11,381,726	\$ 2,584,969	\$ 21,841,725	\$ 31,891,801	\$ 83,839,579
Network Expenses	\$ 356,720	\$ 5,537,791	\$ 3,926,027	\$ 860,872	\$ 5,968,208	\$ 6,903,717	\$ 23,553,334
Total	\$ 1,309,482	\$ 20,724,386	\$ 15,307,753	\$ 3,445,840	\$ 27,809,933	\$ 38,795,517	\$ 107,392,912

Concentrator

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

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

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

Feeder

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

Cost of Capital

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

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
Network Expenses							
total wire center							\$ -
total switching, installed							\$ -
total interoffice transmission							\$ -
total pole investment	\$ 5,447	\$ 59,284	\$ 44,909	\$ 6,815	\$ 24,427	\$ 19,102	\$ 159,984
total buried cable	\$ 14,874	\$ 192,144	\$ 223,735	\$ 80,274	\$ 162,927	\$ 70,383	\$ 744,336
total u/g cable	\$ 23	\$ 385	\$ 768	\$ 2,506	\$ 68,979	\$ 81,850	\$ 155,511
total conduit	\$ 130	\$ 1,496	\$ 1,177	\$ 931	\$ 47,532	\$ 103,461	\$ 154,728
total aerial cable	\$ 12,240	\$ 190,588	\$ 280,620	\$ 102,968	\$ 271,899	\$ 217,097	\$ 1,075,413
total drop cable	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
total muxes and digital terminals							\$ -
total common channel signaling							\$ -
Expense Summary							
Annual Capital Cost	\$ 111,013	\$ 1,476,301	\$ 1,774,657	\$ 810,341	\$ 10,838,299	\$ 19,830,118	\$ 34,840,729
Network Expenses	\$ 32,715	\$ 443,897	\$ 551,208	\$ 193,495	\$ 576,765	\$ 491,893	\$ 2,289,972
Total	\$ 143,728	\$ 1,920,197	\$ 2,325,865	\$ 1,003,836	\$ 11,415,063	\$ 20,322,011	\$ 37,130,700

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

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

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

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Signaling

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

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

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

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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 \$	48,555	2,798,146	4,626,174	1,790,995	16,066,113	27,252,980	52,582,963
TOTAL \$	48,555	2,798,146	4,626,174	1,790,995	16,066,113	27,252,980	52,582,963
	0.09%	5.32%	8.80%	3.41%	30.55%	51.83%	100.00%

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

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

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	\$ 18,975	\$ 673,408	\$ 978,664	\$ 277,652	\$ 2,613,676	\$ 2,773,649	\$ 7,336,023
TOTAL	\$ 18,975	\$ 673,408	\$ 978,664	\$ 277,652	\$ 2,613,676	\$ 2,773,649	\$ 7,336,023
	0.26%	9.18%	13.34%	3.78%	35.63%	37.81%	100.00%

Cost of Capital

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

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

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	\$ 1,746	\$ 86,476	\$ 137,202	\$ 45,732	\$ 430,514	\$ 642,956	1,344,627
total switching	\$ 4,939	\$ 241,619	\$ 382,483	\$ 127,862	\$ 1,201,043	\$ 1,798,531	3,756,477
TOTAL	\$ 6,685	\$ 328,095	\$ 519,686	\$ 173,594	\$ 1,631,557	\$ 2,441,487	5,101,104
	0.13%	6.43%	10.19%	3.40%	31.98%	47.86%	100.00%

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

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

Operator

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

Cost of Capital

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

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

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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	9,723	693,900	1,200,153	530,320	4,578,381	8,542,762	15,555,239
TOTAL	9,723	693,900	1,200,153	530,320	4,578,381	8,542,762	15,555,239
	0.08%	4.46%	7.72%	3.41%	29.43%	54.92%	100.00%

Cost of Capital	Year	1	2	3	4	5	6
Total Investment	\$	15,555,239	\$15,555,239	\$15,555,239	\$15,555,239	\$15,555,239	\$15,555,239
Accumulated Depreciation			1,728,360	3,456,720	5,185,080	6,913,439	8,641,799
Net Plant			13,826,879	12,098,519	10,370,159	8,641,799	6,913,439
Depreciable Life		9					
Rate of Return		0.100					
Return Amount			1,384,071	1,211,062	1,038,053	865,044	692,035
Income Tax Rate		0.40					
Income Tax Gross-Up			507,493	444,056	380,619	317,183	253,746
Total Return			3,819,923	3,383,478	3,147,032	2,910,587	2,674,141
Discount Rate		0.100					
Present Value			16,249,446				
Present Value Factor			5.757				
Levelized Capital Cost	\$		2,822,684	0.181461961			

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

COST OF NETWORK ELEMENTS

Florida GTE FLORIDA INC

A. Loop elements

	0 - 5 lines/sq mi	5 - 200 lines/sq mi	200 - 650 lines/sq mi	650 - 850 lines/sq mi	850 - 2550 lines/sq mi	> 2550 lines/sq mi	Totals
<i>Loop Distribution (including NID)</i>							
Annual Cost	\$ 1,905,627	\$ 31,327,754	\$ 24,045,208	\$ 5,529,014	\$ 44,681,230	\$ 62,757,082	\$ 170,245,915
Unit Cost/month	\$ 56.55	\$ 18.78	\$ 9.08	\$ 6.27	\$ 5.38	\$ 5.06	\$ 6.66
<i>Loop Concentration</i>							
Annual Cost	\$ 236,471	\$ 6,297,998	\$ 8,955,476	\$ 2,430,386	\$ 20,164,966	\$ 23,931,630	\$ 62,016,926
Unit Cost/month	\$ 7.02	\$ 3.77	\$ 3.38	\$ 2.75	\$ 2.43	\$ 1.93	\$ 2.39
<i>Loop Feeder</i>							
Annual Cost	\$ 209,160	\$ 2,902,642	\$ 3,653,437	\$ 1,610,702	\$ 18,340,176	\$ 32,873,645	\$ 59,589,763
Unit Cost/month	\$ 6.21	\$ 1.74	\$ 1.38	\$ 1.83	\$ 2.21	\$ 2.65	\$ 2.30
<i>Total Loop</i>							
Annual Cost	\$ 2,351,259	\$ 40,528,394	\$ 36,654,122	\$ 9,570,101	\$ 83,186,371	\$ 119,562,357	\$ 291,852,605
Unit Cost/month	\$ 69.78	\$ 24.29	\$ 13.85	\$ 10.85	\$ 10.01	\$ 9.64	\$ 11.25
Total lines	2,808	139,040	220,599	73,530	692,197	1,033,771	2,161,945
Total lines served by DLC	2,808	124,119	179,068	46,531	387,111	452,140	1,191,777

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

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Cost detail

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

	interconnected at		
	end office	tandem	wtd average
Local interconnection	\$ 0.0021	\$ 0.0037	n/a
IXC switched access	\$ 0.0024	\$ 0.0040	\$ 0.0028
per 800 attempt (TCAP)	\$ 0.0021		
	\$ 0.0002		
ISUP cost/transaction	\$ 0.0002		
ISUP cost/completion	\$ 0.0003		
IXC switched access MOU/comp	8.19		
ISUP cost/min	\$ 0.0000		
D link per month	\$ 8.65		
DS-1 per month	\$ 86		
DS-3 per month	\$ 2,419		

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

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

Intrastate Toll DEMs	3,747,129,748			
Interstate Toll DEMs	8,498,672,303			
			10,044	trk-min/mo
			interLATA ded. trunks	98,023
Common Transport MOU			end office trk port inv	\$ 28,814,013
Local	222,081,109	w/o OS usage		
Intrastate Toll	749,426,950			
Interstate Toll	1,699,734,461			
	2,671,241,519			
Intrastate IntraLATA Calls	76,986,000	14.37%	SOCCC message counts	
Intrastate InterLATA Calls	458,680,000	85.63%		
	535,666,000			
		trunk port usage	44,968,112,483	
Calculation of EO Usage				
Local DEMs, incl OS	24,817,463,805	87.0%	of total DEMs	
Intraoffice Local DEMs	13,371,633,333			
Intraoffice Local Actual Min	6,685,766,666		Dedicated Transport MOU	
Interoffice Local Actual Min	11,446,930,473	per end	Local, w/o OS	5,440,987,165
Intrastate Toll Actual Min	3,747,129,748		IntraLATA Toll	215,423,269
Interstate Toll Actual Min	8,498,672,303		InterLATA Toll	11,814,955,513
	30,377,499,190			17,471,365,947
Tandem Switch MOU			Dedicated Trunk-SW	144,951