

Technical Memorandum No. 5

Statewide 511 Advanced Traveler Information System (ATIS):

Preliminary Detail and Budget Estimate for ATIS and Telecommunications Components

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*Technical Memorandum No. 5: Statewide 511 ATIS
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List of Acronyms

ALEC	Alternative Local Exchange Carrier
ATIS	Advanced Traveler Information System
D/B/A	Doing Business As
FCC	Federal Communications Commission
FDOT	Florida Department of Transportation
FHP	Florida Highway Patrol
I-4	Interstate 4
ICB	Individual Case Basis
ILEC	Incumbent Local Exchange Carrier
ISP	Information Service Provider
ITN	Invitation to Negotiate
IVR	Interactive Voice Response
LCA	Local Calling Area
QA	Quality Assurance
STMCSLS	Statewide Transportation Management Center Software Library System
UDOT	Utah Department of Transportation

1. Overview

The Statewide 511 Advanced Traveler Information System (ATIS) Conceptual Design Plan details issues, recommendations, and solutions for implementing the 511 ATIS in areas of Florida that remain outside the areas covered by the regional 511 systems – Southeast Florida, Interstate 4 (I-4) through Orlando, and the Tampa Bay areas.

Previous memoranda have discussed the availability of information (e.g., data) over the system's coverage area (i.e., roadways, segments, and transportation facilities), construction, road restriction and incident information, and current service levels offered by telecommunications companies doing business in Florida. Additional memoranda discussed the available data gathering platforms and practices that must be evolved in order to properly propagate a database for a statewide 511 system.

Section 2 describes the purpose of this document and a complete conceptual design follows for the statewide 511 ATIS.

2. Purpose

The purpose of this *Technical Memorandum* is to provide a preliminary budget for the statewide 511 ATIS, including both ATIS and telecommunications components. This *Memorandum* responds to the following specific area of the Task Work Order:

- 1.5 Provide a preliminary budget estimate for the project including both ATIS and telecommunications components.

Discussions with Florida Department of Transportation (FDOT) officials and telecommunications providers doing business in Florida provided the information contained in this *Technical Memorandum*.

3. Implementation Costs for Incumbent Local Exchange Carriers (ILECs)

3.1 ILECs in Florida

There are currently ten incumbent local exchange carriers (ILECs) licensed to operate in Florida. These are listed in Table 3.1.

Table 3.1 – ILECs in Florida

Licensee	Doing Business As (D/B/A)
Alltel Florida	Alltel Florida
BellSouth Telecommunications, Inc.	BellSouth Telecommunications, Inc.
Frontier Communications of the South, Inc.	Frontier Communications of the South, Inc.
GTE, Inc.	GT Com
ITS Telecommunications Systems, Inc.	ITS Telecommunications Systems, Inc.
Northeast Florida Telephone Company	NEFCOM
Quincy Telephone Company	TDS Telecom/Quincy Telephone
Smart City Telecommunications LLC	Smart City Telecom
Sprint-Florida, Inc.	Sprint-Florida, Inc.
Verizon Florida, Inc.	Verizon Florida, Inc.

With the exception of Smart City Telecommunications, all of these carriers offer service in the area designated for coverage by the statewide 511 ATIS.¹

¹ Smart City offers service in an area that falls within the Orlando511 service coverage area. Other carriers offer service within the regional systems' areas, but also offer service in the statewide coverage area as well.

3.2 Preliminary Cost Estimates for ILEC Implementation of 511

Most carriers have costs associated with implementing the statewide 511 ATIS. Table 3.2 lists these costs and further divides them into recurring (i.e., monthly charges) and non-recurring (i.e., installation) costs.

3.2.1 Non-Recurring Costs per Carrier

A list of estimated, non-recurring costs associated with implementing the statewide 511 ATIS is shown in Table 3.2. Six of the ten ILECs either have tariffs on file or are in the process of filing for the tariffs. Four of the ILECs are using individual case basis (ICB) pricing.

Total non-recurring charges range from \$182 to \$25,152 per carrier with a total estimated cost of \$60,313.

3.2.2 Recurring Costs per Carrier

Table 3.2 also lists the recurring costs associated with the implementation of the statewide 511 ATIS. Further discussions with the ILECs reveal that four of the carriers are imposing monthly charges through their tariff filings. Alltel Florida, Inc., GTE, Inc., and NEFCOM indicate a sliding scale based on the number of calls translated through the 511 code. For Alltel, the charges will vary from \$1,225 to \$3,500 per month, while GTE and NEFCOM charges vary from \$35 to \$100 per month.

Verizon Florida bases monthly charges on the number of central offices implemented. For Verizon, the charges will amount to \$440 per month. Note that Verizon's implementation charges are significantly lower than other carriers' are, at \$120 per central office.

Table 3.2 – Carriers and Switching Facilities

Carrier	Number of Central Offices	Number of Local Calling Areas (LCAs)	Tariff or ICB Status	Estimated Installation Costs	Estimated Monthly Costs
Alltel Florida, Inc.	28	35	Tariff on file	\$17,500	\$1,225 ~ \$3,500 monthly based on call volume
BellSouth Telecommunications, Inc.	92	19	Tariff on file	\$25,152	\$0
Frontier Communications of the South, Inc.	2	2	Plan to file a tariff	\$224	\$0
GTC, Inc., d/b/a GT Com	2	1	Filing a tariff in January 2003	\$500	\$35 ~ \$100 monthly based on call volume
ITS Telecommunications Systems, Inc.	1	1	Individual case basis (ICB) pricing	\$182	\$0
Northeast Florida Telephone Company d/b/a NEFCOM	2		Developing a tariff	\$500	\$35 ~ \$100 monthly based on call volume
Quincy Telephone Company d/b/a TDS Telecom/Quincy Telephone	1	3	Tariff on file	\$185.90	\$0
Smart City Telecommunications LLC d/b/a Smart City Telecom	1	2	ICB pricing ^{2, 3}	\$0	\$0
Sprint-Florida, Inc.	59	Number of LCAs unavailable	ICB pricing	\$14,750	
Verizon Florida, Inc.	11	1	ICB pricing	\$1,320	\$440 per month based on number of central offices
Totals	210			\$60,313	\$1,665 ~ \$3,940 per month based on multiple factors

² Smart City currently states that they will not charge if the 511 translation is to a local or toll-free number.

³ At this writing, Smart City does not offer 511 translations within the Orlando 511 coverage area. A request should be made to Smart City to provide 511 translations as soon as possible.

4. Implementation Costs for Alternative Local Exchange Carriers (ALECs)

4.1 ALECs in Florida

There are currently 418 alternative local exchange carriers (ALECs) licensed to provide landline services in Florida. Due to the number of carriers involved, the current list of ALECs is provided in *Appendix A, Alternative Local Exchange Carriers (ALECs) in Florida*.

4.2 Preliminary Cost Estimates for ALEC Implementation of 511

A number of ALECs were approached in preparing for this document and responders indicated that they would implement the 511 dialing code without charge. Approximately ten percent of the ALECs currently participating in Southeast Florida's SunGuideSM ATIS were contacted.

5. Implementation Costs for Wireless Carriers

5.1 Wireless Carriers in Florida

There are currently 52 wireless companies licensed to operate in Florida. The wireless industry is continually changing as carriers move into and out of each market and as smaller carriers merge with larger ones.⁴ Visit <http://gullfoss2.fcc.gov/cib/form499/499a.cfm> for the most up-to-date list of wireless carriers in Florida. Table 5.1 lists the wireless companies registered with the Federal Communications Commission (FCC) and licensed to provide services in Florida as of June 15, 2002.

Table 5.1 – Wireless Carriers in Florida

Legal Name of Reporting Entity	Doing Business As (D/B/A)
360 Communications Company of Florida	ALLTEL / 360 Communications Co. of Florida
AAT SMR, LLC	AAT SMR, LLC
ALLTEL Wireless Holdings, LLC	ALLTEL
AT&T Wireless Services of Florida	AT&T Wireless Services, Inc.
Arco Communications Network Corp.	CAN Pagers & Cellulare
Bachow / Coastel, LLC	Coastel Communications
BellSouth Mobility, LLC	Cingular Wireless
Bradenton Cellular Partnership	AT&T Wireless Services, Inc.
Cellular South Licenses, Inc.	Cellular South
Central Florida Cellular Telephone Company, Inc.	United States Cellular
Citrus Cellular Limited Partnership	AT&T Wireless Services, Inc.
Claircom Licensee Corporation	AT&T Wireless Services, Inc.
Commnet of Florida	Commnet of Florida
Eliska Wireless Ventures I, Inc.	VoiceStream Wireless ⁵
FCI 900, Inc.	Nextel Communications
Ft. Walton Beach / 360 Communications Co.	ALLTEL
Florida 9 RSA Limited Partnership	ALLTEL
Florida Cellular Service, LLC	Cingular Wireless

⁴ The number of carriers in November 2002 was 48. As of January 15, 2003, the number had grown to 52.

⁵ VoiceStream Wireless has recently changed its operating name to T-Mobile.

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Legal Name of Reporting Entity	Doing Business As (D/B/A)
Florida RSA No. 8, Inc.	United States Cellular
Florida RSA No. 2B (Indiana River) Ltd. Partnership	Cingular Wireless
Hargray Wireless, LLC	Hargray Wireless, LLC
Jacksonville MSA Limited Partnership	Cingular Wireless
Larsen Cellular Communications, Ltd.	Cellular One
Louisiana Unwired, LLC	Sprint PCS US Unwired
Melbourne Cellular Telephone Company	AT&T Wireless Services, Inc.
Meriwether Communications, LLC	Meriwether Communications, LLC
MetroPCS California/Florida, Inc.	MetroPC3
National Telemanagement Corporation	American Roaming Network
Nextel Partners, Inc.	Nextel Partners, Inc.
Nextel South Corp.	Nextel Communications
Ocala Cellular Telephone Company, Inc.	AT&T Wireless Services, Inc.
Omnipoint Holding, Inc.	VoiceStream Wireless ⁶
Orlando CGSA, LLC	Cingular Wireless
Orlando SMSA Limited Partnership	Cingular Wireless
Panama City Cellular Telephone Company	Cellular One
Petroleum Communications, Inc.	PetroCom
Price Communications Wireless, Inc.	Cellular One
Railfone – Amtrak Venture	Railfone – Amtrak Venture
Sarasota Cellular Telephone Co.	AT&T Wireless Services, Inc.
Shared Technologies Cellular, Inc.	Shared Technologies Cellular, Inc.
Simple Communications, LLC	Simple Communications, LLC
Sprint Spectrum LP	Sprint PCS
SprintCom, Inc.	Sprint PCS
Taylor Telecommunications, Inc. – Texas RSA 5	Texas Cellular
Telepak, Inc.	Cellular South
Texas RSA 8 East Limited Partnership	Texas Cellular
TracFone Wireless, Inc.	TracFone Wireless, Inc.
Traq Wireless, Inc.	Traq Wireless, Inc.

⁶ Ibid.

Legal Name of Reporting Entity	Doing Business As (D/B/A)
USCOC of Tallahassee, Inc.	United States Cellular
Verizon Wireless Personal Communications, LP	Verizon Wireless
Verizon Wireless of the East, LP	Verizon Wireless
VoiceStream Tampa/Orlando, Inc.	VoiceStream Wireless ⁷

5.2 Preliminary Cost Estimates for Wireless 511 Implementation

All of the “national”⁸ carriers have been contacted for implementation costs and only one (Verizon Wireless) has indicated that any charges will be imposed for translating the 511 dialog code, as long as the translation is to a local or toll-free number.

At this time, discussions with Verizon Wireless are ongoing and, assuming Verizon Wireless’s Florida implementation follows that of other areas of the country, it is likely that these charges will be reduced or eliminated in favor of the local or toll-free requirements of the other carriers. See *Technical Memorandum No. 4 – Functional Requirements for Telephone Services and Call Routing* for more details.

⁷ *ibid.*

⁸ Most carriers offer service nationwide through roaming agreements; however, the national carriers are able to offer service nationwide using their own infrastructures. These carriers include AT&T Wireless, Cingular, T-Mobile, Verizon Wireless, Sprint, and Nextel.

6. Costs to Implement a Call Routing Solution

Call terminating points are a primary issue in the implementation of a 511 call routing solution. One solution available is an on-premises solution. This option terminates all calls at a single location in Florida. The most likely location for the termination point will be an operations center or oversight facility, such as the FDOT Central Office.

Another available solution is the off-premises call center. This solution uses an off-premises interactive voice response (IVR) system at a call center facility located in another area where all calls terminate. These facilities house multiple applications of IVR services, complete with backup power and databases, as well as the ability to share resources if the need arises. Since all call services are managed by the call center facility, the implementation requirements remain the same whether the facility is in-state or out-of-state.

6.1 The SUNCOM Network Services

The SUNCOM Network is a unique solution that may be available for implementing the statewide 511 ATIS, as well as offering solutions for inter-regional call-transfer issues.

The SUNCOM Network is an intrastate telecommunications backbone that transfers calls between outlying points in the state and to out-of-state facilities by way of a fixed charge.

SUNCOM offers telecommunications services to qualified entities at rates competitive to those of traditional telecommunications providers, with the advantage of having a single provider (i.e., local, long distance, dedicated voice or data, Internet, etc.) supply all levels of telecommunications services.

The solutions below discuss the rates for providing these services. These rates will be measured against those of the other carriers. However, implementing a solution using the SUNCOM Network raises the issue of whether or not only qualified users (i.e., FDOT non-profit entities) may contract for these services. The FDOT will need to develop the 511 contract with the system implementer wherein the FDOT provides the telecommunications services (i.e., call terminations and transfer services) or assigns such services to the contractor as a part of their contract.⁹

⁹ Services cannot be provided to a non-qualified user, such as a for-profit corporation. FDOT would have to contract and pay for SUNCOM services in this implementation.

6.1.1 The SUNCOM Network Service Rates

SUNCOM rates vary based on the service implemented. Typical rates for services are:

- Call transfer to a long distance number – 6.9¢ per minute;
- Call transfer via toll-free service – 3.8¢ per-minute (plus the cost of a dedicated circuit to the user’s premises); and
- Off-Premises extension/foreign exchange circuit (e.g., dedicated point-to-point, intrastate only) – 92¢ per mile.¹⁰

6.2 On-Premises Call Centers

Table 6.1 below illustrates the costs for implementing a call routing solution with the terminating point at a central facility within Florida. The two solutions available are: 1) a toll-free backbone and 2) an intrastate telecommunications backbone (i.e., the SUNCOM Network). A toll-free backbone solution will translate the call to one number regardless of the location of the caller.¹¹ The SUNCOM Network will translate a 511 call to a number that is local to the caller and then carry the call to the terminating point over the SUNCOM Network.

Table 6.1 – Estimated Costs for On-Premises Call Routing Solutions

	Toll-Free Backbone	SUNCOM Network
Landline Call Routing	3.5¢ / minute ¹²	3.8¢/ minute ¹³
		6.9¢/minute ¹⁴
		92¢/mile ¹⁵
Wireless Call Routing ¹⁶	3.5¢/minute	6.9¢/minute

¹⁰ An off-premises extension or foreign exchange circuit allows a number that would normally be a long distance or toll call to be viewed by the caller’s telephone service as a local call. This is similar to a dedicated service, as per-minute charges do not apply, only distance charges between two points.

¹¹ See *Technical Memorandum No. 4 – Functional Requirements for Telephone Services and Call Routing* for more details on a toll-free backbone.

¹² This cost represents the approximate per-minute charges that will be negotiated with a toll-free provider.

¹³ This cost represents per-minute charges for a call transfer to a toll-free number as discussed with SUNCOM Network personnel.

¹⁴ This cost represents per-minute charges for a call-transfer to a long distance number as discussed with SUNCOM Network personnel.

¹⁵ This cost represents dedicated service connections between two points. Since the number of local access points for the statewide service will be quite high, it is unlikely that this solution will be viable for calls made to 511 for translation to the statewide ATIS. However, it should be considered for implementing call-transfer solutions *between* the regional and statewide 511 services.

¹⁶ As noted in *Section 6.2.3*, wireless call routing is best served using a toll-free access point due to the inconsistent placement of each wireless carrier’s switches.

6.2.1 Provisioning of Telephone Services

Other costs associated with an on-premises call center are the installation of telephone lines and the corresponding monthly charges. Telephone lines may be installed as analog circuits, but will more likely be installed as digital circuits, using a T-1 service.¹⁷ Table 6.2 illustrates these costs.

Table 6.2 – Costs for Telephone Lines

	Non-Recurring Costs (Installation)	Recurring Costs (Monthly Charges)
Four T-1 Circuits (equivalent to 96 phone lines)	\$745 x 4 = \$2,980	\$629.50 x 4 = \$2,518/month

6.2.2 Landline Call Routing for On-Premises Call Centers

Landline call routing for these solutions may be accomplished on a per-central office basis. That is, landline carriers generally adhere to city and county boundaries when aligning service with their central offices. Therefore, each central office may be programmed to translate the 511 code to a particular number, either a toll-free number or the local access point for the SUNCOM Network, allowing callers in the designated geographic area to be connected to the proper number.

6.2.3 Wireless Call Routing for On-Premises Call Centers

Wireless call routing is more complex, as carriers do not adhere to county or even state boundaries. Both the toll-free backbone and the SUNCOM Network solutions are applicable to translating 511 calls for wireless users. However, previous discussions have concluded that the overlapping coverage areas of the carriers' cellular switches necessitate that the FDOT translate wireless calls to a single point statewide (i.e., both regional and statewide systems will translate to the statewide 511 service *before* offering the caller the opportunity to transfer to one of the regional systems). It makes sense to adhere to this conclusion when implementing the wireless cost solution as well, translating wireless 511 calls to a toll-free backbone number throughout the state.

¹⁷ A single T-1 line can accommodate the voice traffic of 24 analog telephone lines.

6.3 Off-Premises Call Centers

When considering an out-of-state or off-premises call center, a number of variables are revealed that can only be fully addressed at the time of contracting. In most cases, an off-premises solution will require a connection through a toll-free backbone provided by the call center service provider.

The following illustrates some of these variables and examples of the costs that might be encountered.

6.3.1 Guaranteed Number of Ports

One variable in implementing an off-premises call-center is the number of guaranteed ports. A guaranteed port is one that is dedicated to the contracted service, in this case the statewide 511 ATIS. By assigning a specific number of ports to the service, the call center provider is stating that no other service will have access to these ports, guaranteeing that they will always be available should call volume reach such a level. However, in committing to a specific number of ports, the service is minimizing one of the major features of a call center service, that being the ability to share ports and capacity among all of its clients.

Example: An ATIS service has peak volume of usage during morning and afternoon rush hours as travelers are taking to the roadways. A shipping company sees its peak volume of usage during midday and afternoon as businesses attempt to get packages out before close of business for the day. By allowing each of these services to share the available ports on a call center system, each service may also share in the reduced cost of providing ports for their own clientele.

With this scenario, there is a risk (the degree of which may be addressed by the vendor), that users of one of the services may encounter a busy signal during peak call times for both services. However, the degree of risk must be weighed against the overall cost savings for provision of the service.

6.3.2 Costs for Professional Services

Another variable in implementing an off-premises call center is whether professional services are included in the costs of the service (i.e., in the per-minute charges), are paid in advance, or are covered under a separate agreement.

A call center implementer will often take advantage of the fact that there are no physical systems to be installed in order for them to provide service. The physical infrastructure, computer hardware, etc., already exists as shared infrastructure between other call center clients. Professional services, such as programming the call center menu and user interactions or assigning telephone circuits, can be incorporated into the per-minute charges to be paid by the client, in this case the FDOT. By doing so, the initial costs for implementing a service can be reduced or eliminated in favor of higher per-minute charges.

Professional services paid as a separate charge can cost between \$350,000 and \$500,000, depending on the level of development required for the service.

6.3.3 Current Examples of 511 Off-Premises Implementations

The Orlando 511 service currently uses an off-premises solution that has access to, but does not guarantee, 96 ports in which to terminate calls.¹⁸ The cost for professional services (i.e., application development and implementation) is incorporated in the per-minute cost of the calls.

The cost for calls is 18¢ per-minute, based on an assumption of 1.5 million minutes of calls per year. The FDOT, through its contractor, pays \$22,500 per month, or \$270,000 per year, for the service. Should call volumes not reach 1.5 million minutes per year, then the cost per-minute increases, as the monthly charge does not change. A simple analogy is an individual's wireless phone agreement wherein the individual pays \$40 per month for 400 minutes of service. If all 400 minutes are used, the cost is 10¢ per minute. However, if only 200 minutes are used, the cost is 20¢ per minute.

The Utah Department of Transportation (UDOT) chose to guarantee 96 available ports for their 511 service. Since the call center service provider is required to hold these 96 ports for UDOT regardless of call volume, the cost for this service is higher at 9¢ per-minute, based on an assumption of 5.5 million minutes of calls per year. UDOT pays a total of \$495,000 per year for the service. As with Orlando, should call volumes not reach expected volumes of 5.5 million minutes per year, the effective cost per-minute goes up.

UDOT also chose to pay for professional services separately, at a cost of between \$350,000 and \$400,000.

The variations between the Orlando and Utah systems are:

- Utah has 96 guaranteed ports, whereas Orlando does not have a guarantee that their 96 ports will be available at all times;
- Orlando incorporated their professional service costs into the per-minute cost of the calls, whereas Utah separated the costs; and
- The call volume assumptions are significantly different.

¹⁸ The agreement also calls for the capability for "overflow" calls to be answered, assuming the additional capacity is available. TellMe, the service provider for the Orlando 511 service, maintains its network to maximize capacity for all of its customers, therefore allowing the overflow calls to be answered in most cases.

6.3.4 Costs for Off-Premises Solution

As indicated in Table 6.3, when including implementation costs in the per-minute charges, the cost for providing an off-premises solution may be lower than an on-premises solution, depending on the variables discussed.

Table 6.3 – Estimated Costs for Off-Premises Call Routing Solutions

	Implementation included in Per-Minute Charges	Implementation Paid Separately from Per- Minute Charges
Implementation Costs	\$0	\$500,000
Per-Minute Charges	18¢/minute	9¢/minute
Annual cost based on 5.5 million minutes of usage	\$990,000	\$495,000

7. Costs for the Implementation and Operation of a Statewide Data Gathering / Fusion System

7.1 Preliminary Cost Estimate for the Implementation of a Data Fusion System

As discussed in *Technical Memorandum No. 3*, it appears the best solution to a data fusion system is to create an additional system output from the Statewide Transportation Management Center Software Library System (STMCSLS). The cost for developing this additional output is estimated at \$200,000. This cost must be incurred regardless of the call routing or on-premises/off-premises solution chosen.

This assumes that the responder to the STMCSLS Invitation to Negotiate (ITN) will implement this enhancement to the database as a part of the original programming effort and that the data input will remain predominantly the same as in the original STMCSLS scope.

7.2 Preliminary Cost Estimate for an Information Service Provider (ISP)

The level of data gathered through the STMCSLS should prove sufficient for the statewide 511 ATIS, assuming data entry takes place at the district office level and the Florida Highway Patrol (FHP) data stream provides supplemental incident information. Still, an information service provider (ISP) will be required to oversee the data flow and assure proper formatting and delivery of the information through the 511 telephone service. The ISP may also augment FDOT and FHP data as a part of their contract.

Assuming no augmentation of data is required, the FDOT should expect to pay approximately \$500,000 to \$600,000 annually to the ISP for staffing, rent, and utilities (as necessary), administrative equipment, telephone lines and service, Internet access, and other required equipment and supplies necessary to accomplish the functions of overseeing the data gathering and dissemination process.

8. Implementation Costs for an Interactive Voice Response (IVR) System

8.1 Preliminary Cost Estimates for Implementing an On-Premises IVR Solution¹⁹

Should the FDOT contract with a provider implementing a stand-alone, IVR system, certain hardware, development, and programming costs must be assumed. The following represents *preliminary* costs for implementation based on one company’s response to a request for pricing information from the Orlando 511 implementation. Other submissions show cost proposals of between \$300,000 and \$500,000.

Note: This cost estimate is based on an IVR system using 96 ports (i.e., capacity for 96 simultaneous telephone calls). Choosing to add more ports will incrementally increase the cost for provisioning the hardware components required to support a higher service level.

Additional charges for telephone service will vary depending on the number of lines²⁰ and the term of the contract with the telecommunications provider. *Section 6.2.1* discusses these charges.

8.1.1 Hardware Costs for an On-Premises Solution

Table 8.1 – Hardware Costs

System Component	Qty	Price
96 Port IVR System: Processor hardware, monitoring hardware, database server hardware, and licensing; voice recognition developer kit and system administrator training; installation of all components and 12-month maintenance contract	1	\$185,595.00 ²¹

¹⁹ Though not required to be in-state, the purpose of a stand-alone IVR is to have all functions and maintenance close to the operations center. Therefore, it is assumed that a stand-alone system will be housed in-state, probably at or close to the central office facility.

²⁰ This charge is for the cost of the physical telephone lines installed to connect to the IVR system. It does not include the cost of any toll-free or other service enabled to carry calls from the discrete areas of the state where a call is initiated.

²¹ Following the recommendation of starting with 192 ports, this sum will essentially double to \$371,190. Other project components will likely stay the same, with the exception of certain installation costs.

8.1.2 Services Effort Estimate for an On-Premises Solution

Table 8.2 – Phase 1: Requirements and Design

Project Component	Man Days	Price
Pre-Development – Requirements and Design (Functional Design, Dialog Design, and Reports Design)	6	\$8,100.00

Table 8.3 – Phase 2: Application Development

Project Component	Man Days	Price
IVR Application Development and Unit Test; Concatenated Speech Mapping and/or Text-to-Speech Development; Custom Reports; Admin – Prompt Management, Application Installation, Configuration, and Application Administration	39	\$52,650.00

Table 8.4 – Phase 2A: Optional – Database Design and Development

Project Component	Man Days	Price
Database Definition and Setup (For storage of sound files for messages before being converted and placed on the IVR system)	12	\$16,200.00

Table 8.5 – Phase 3: Testing

Project Component	Man Days	Price
System Integration Test and Quality Assurance (QA); Local and/or Remote, and On-site System Integration; QA Engineer Services; Problem Resolution; Test Plan Development; User Acceptance Testing and Support	12	\$16,200.00

Table 8.6 – Phase 4: Production Roll-Out

Project Component	Man Days	Price
Production Deployment	1	\$1,350.00

Table 8.7 – Project Management

Project Component	Man Days	Price
Project Management	13	\$17,550.00
Total Services Effort Estimate	83	\$112,050.00
TOTAL SYSTEM & SERVICES	83	\$297,645.00

8.2 Preliminary Cost Estimates for Implementing an Off-Premises Interactive Voice Response (IVR) Solution

As noted previously, the charges for implementing an off-premises solution vary based on the decisions made during the contracting process. Though there are no actual hardware costs, professional service costs, based on development and integration of the new service into the call center's systems, may be as costly as purchasing stand-alone hardware. One major difference is that the call center facilities will be maintained and updated as new industry developments allow, whereas purchased or leased hardware components will have a limited life span before replacements are necessary.

If paying for professional services separately, assume a cost of \$500,000 for implementation of services.

9. Cost Summary

Table 9.1 summarizes the cost estimates mentioned in this document. The total cost for implementing the statewide 511 ATIS will ultimately depend on future decisions made by the FDOT. The decision whether to terminate 511 calls on-premises or off-premises is key to further estimating the system's cost. Either choice will require additional direction from the FDOT, including whether to utilize the SUNCOM Network or a toll-free backbone, estimating the call volume, choosing the number of ports (either shared or guaranteed), etc.

Table 9.1 – Cost Summary

Telecommunications Costs				
	<i>Non-Recurring Costs (Installation)</i>		<i>Recurring Costs (Monthly Charges)</i>	
ILECs	\$59,578.00		\$1,665.00 ~ \$3,940.00	
ALECs	\$0.00 ²²		\$0.00 ²³	
Wireless (excluding Verizon)	\$0.00		\$0.00	
Data Gathering and Operations Costs				
	<i>Non-Recurring Costs (Installation)</i>		<i>Recurring Costs (Monthly Charges)</i>	
Data Gathering / Fusion System	\$200,000.00		\$0.00	
Operations Oversight	\$0.00 ²⁴		\$41,666.00 ²⁵	
Interactive Voice Response (IVR) Costs				
	<i>On-Premises</i>	<i>Off-Premises</i>	<i>On-Premises</i>	<i>Off-Premises</i>
IVR	\$400,000.00 ²⁶	\$0.00 ²⁷	\$0.00 ²⁸	\$0.00
Telephone Line Costs				
	<i>On-Premises</i>	<i>Off-Premises</i>	<i>On-Premises</i>	<i>Off-Premises</i>
Telephone line costs (96 ports/4 T-1 lines)	\$2,980.00	NA	\$2,518.00	NA
Call Routing Solution Costs				
	<i>On-Premises</i>	<i>Off-Premises</i>	<i>On-Premises</i>	<i>Off-Premises</i>
On-Premises	\$2,980.00		\$16,041.00 ²⁹	
Off-Premises – Professional Services included in cost of calls		\$0.00		\$82,500.00 ³⁰
Off-Premises – Professional Services paid separately		~ \$500,000.00		\$41,250.00 ³¹

²² The estimate assumes that *all* ALECs follow the model of those previously contacted.

²³ *ibid*

²⁴ The estimate assumes that no supplemental data gathering infrastructure installation is required by an ISP.

²⁵ The estimate is based on \$500,000 annual cost paid to an ISP for oversight on the data flow and dissemination process.

²⁶ The estimate is based on *Section 8.1* and discussions with numerous providers.

²⁷ There are no costs associated with an off-premises IVR system

²⁸ The estimate assumes maintenance is included in the cost of the IVR system.

²⁹ The estimate is based on 3.5¢ per-minute/5.5 million calls per year.

³⁰ The cost is based on 18¢ per minute, at 5.5 million minutes per year, and includes professional service costs.

³¹ The cost is based on 9¢ per-minute, at 5.5 million minutes per year, and with professional services paid separately.

10. Summary Recommendations

10.1 Telecommunications

The telecommunications costs for implementing the 511 dialing code are the same regardless of other solutions, such as call routing or an on-premises versus off-premises call center. Each landline carrier must be contacted and agreements must be signed for translation of the 511 dialing code to whatever number is directed by the FDOT or ISP.

ALECs must also be contacted in an attempt to have the 511 code translated in a similar manner, though the number of responders will probably be less than the number contacted.

Wireless costs for implementation are also not likely to change regardless of the call routing plan. Each wireless carrier must be contacted and agreements signed (if required by the carrier³²) for the translation of the 511 dialing code to whatever number is directed by the FDOT or ISP.

10.2 Interactive Voice Response (IVR)

The selection of an ISP based on responses to the ITN will dictate whether an on-premises or off-premises IVR system is required. More than likely, ITN responders will submit proposals recommending only one of the two solutions. The dominant factor in deciding which solution will be used will be whether the responders meet all of the ITN requirements.

In either case, a sum of \$400,000 to \$500,000 should be assumed as the cost of implementing the IVR solution. In the event that the chosen ISP offers an off-premises solution, this sum *may* be incorporated into the per-minute charges offered by the ISP instead of being paid in advance.

10.3 Telephone Lines

The requirement of paying for installation and monthly service charges for telephone lines will also be based on the responders' proposals to the ITN. ISPs offering an off-premises solution will not likely require the installation and maintenance of physical telephone lines, while those offering an on-premises solution will either list those requirements separately or include them within the construction of their overall cost proposal.

³² Though some carriers require formal requests or letters of clarification for implementation, many are offering 511 translations with NO written agreements. These carriers feel that electronic correspondence provides sufficient information for the implementation and that contractual agreements might, in fact, slow the process and increase liability.

10.4 Call Routing Solution

As noted above, the decision of which call routing solution is chosen will be predominantly based on the selection of an ISP for the ATIS service. However, certain aspects of the solution may be decided regardless of the ISP, such as the transfer of calls between the regional and statewide systems and the routing of calls to the statewide system from the 511 code.

The SUNCOM Network may offer a solution to routing landline calls from the disparate calling points around the state. The ISP (and the FDOT) shall verify with SUNCOM whether any cost savings may be realized by translating the 511 code to various local numbers and then delivering them to the ISP through the SUNCOM Network.

Additional focus should be placed on transferring calls between the statewide and regional systems, as well as between the regional systems themselves. The SUNCOM Network may offer a savings or managed cost with dedicated voice circuits between the systems *as long as the calls remain within the state*.³³

³³ Though SUNCOM can offer long distance or toll-free services, an ISP that provides call center services and is located outside of Florida will likely provide their own toll-free backbone as a part of this service. Calls coming from such a provider back into Florida will be best routed directly to their destination.

11. A Final Note on Costs

It must be noted that the various solutions mentioned offer a range of costs based on assumptions of call volume, location of the call terminating point, and other items that will not become completely clear until responses to an ITN are in hand. What appears to be a lower cost solution based on current information may not offer the best solution for the FDOT in implementing the statewide ATIS. This is especially true when considering the interactions that are desired (i.e., transfers) between the statewide and regional systems.

Appendix A

Alternative Local Exchange Carriers (ALECs) in Florida

*Technical Memorandum No. 5: Statewide 511 ATIS
Preliminary Detail and Budget Estimate for ATIS and Telecommunications Components*

Table A.1 – Alternative Local Exchange Carriers (ALECs) in Florida

	Company Name	City, State Zip
1.	% Piper Marbury Rudnick & Wolfe	Reston, VA 20190-5159
2.	% Teligent, Inc. – Easton Telecom Services, Inc.	Herndon, VA 22170-5281
3.	1-800-RECONEX, Inc.	Hubbard, OR 97032-0040
4.	2nd Century Communications, Inc.	Tampa, FL 33614-2415
5.	360networks (USA), Inc.	Broomfield, CO 80021-2587
6.	A.R.C. Networks, Inc.	Melville, NY 11747-3180
7.	AA Tele-Com	Lake Park, FL 33403-1959
8.	Access Integrated Networks, Inc.	Macon, GA 31210-1161
9.	Access One Communications, Inc.	
10.	Access Point, Inc.	Greenville, SC 29816-5756
11.	AccuTel of Texas, Inc.	Dallas, TX 75356-0803
12.	ACI	Indiantown, FL 34956-1727
13.	Actel Integrated Communications, Inc.	Mobile, AL 36604-2016
14.	Adelphia Business Solutions Investment East, LLC	Coudersport, PA 16915-1630
15.	Adelphia Business Solutions Investment, LLC	Coudersport, PA 16915-1630
16.	Adelphia Business Solutions of Florida, Inc.	Coudersport, PA 16915-1630
17.	Adelphia Business Solutions of Jacksonville, Inc.	Coudersport, PA 16915-1630
18.	Adelphia Telecommunications of Florida, Inc.	Coudersport, PA 16915-1630
19.	Advanced TelCom of Delaware, Inc.	Salem, OR 97302-1177
20.	Advantage Group of Florida Communications, LLC	Bartlett, TN 38133-4029
21.	Advent Consulting and Technology, Inc.	Wesley Chapel, FL 33544-4036
22.	Airface Communications, Inc.	Boca Raton, FL 33432-1643
23.	AirTIME Technologies, Inc.	Lake Worth, FL 33463-2904
24.	ALEC, Inc.	Kennesaw, GA 30152-3238
25.	Allegiance Telecom of Florida, Inc.	Washington, DC 20036-3521
26.	Allied Riser of Florida, Inc.	Washington, DC 20007-4406
27.	ALLTEL Communications, Inc.	Little Rock, AR 72203-2177
28.	Alternative Phone, Inc.	Ocala, FL 34478-4230
29.	AMAFLA Telecom, Inc.	Palm Harbor, FL 34683-2938
30.	American Dial Tone	Safety Harbor, FL 34695-1437
31.	American Fiber Network, Inc.	Overland Park, KS 66210-2007
32.	American Fiber Systems, Inc.	Rochester, NY 14618-3979
33.	AmeriMex Communications Corp.	Roswell, GA 30075-3660
34.	AMTEL NETWORK, INC.	St. Marys, GA 31558-8695
35.	ANEW Broadband, Inc.	Miami, FL 33126-2042
36.	Annox, Inc.	Pleasant View, TN 37146-0230
37.	Anns Communication	Tallahassee, FL 32304-3117
38.	Arbros Communications Licensing Company S.E., LLC	Linthicum, MD 21090-2903
39.	Asset Channels-Telecom, Inc.	New Canaan, CT 06840-5309
40.	AT&T	Atlanta, GA 30309-3579
41.	AT&T Digital Phone	Atlanta, GA 30309-3579
42.	Atlantic.Net Broadband, Inc.	Gainesville, FL 32609-2865
43.	Atlas Communications, Ltd.	Kalamazoo, MI 49007-4752
44.	ATS	West Palm Beach, FL 33417-4352
45.	Auglink Communications, Inc.	St. Augustine, FL 32084-3618
46.	Available Telecom Services, Inc.	West Palm Beach, FL 33417-4352
47.	Avix Technologies, Inc.	Tampa, FL 33602-5927
48.	Axsys, Inc./Tel Ptns.	Gulf Breeze, FL 32561-4891
49.	Backbone Communications, Inc.	Los Angeles, CA 90071-2222
50.	Basic Phone, Inc.	Orange, TX 77631-0220
51.	Baytel Communications, Inc.	Miami, FL 33129-1710

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	Company Name	City, State Zip
52.	BellSouth BSE, Inc.	Atlanta, GA 30346-1231
53.	BellSouth Telecommunications, Inc.	Tallahassee, FL 32301-1556
54.	Birch	Kansas City, MO 64108-1914
55.	Biz-Tel Corporation	3400 Coral Way, Suite A
56.	BlueStar Networks, Inc.	Santa Clara, CA 95054-1511
57.	Boomerang Communications, Inc.	Tampa, FL 33610-8233
58.	Broadband2Wireless US, Inc.	Boston, MA 02210-2414
59.	Broadslate Networks of Florida, Inc.	Charlottesville, VA 22911-8698
60.	BroadStream Corporation	Stratford, CT 06614-1300
61.	BroadStreet Communications, Inc.	Canonsburg, PA 15317-9586
62.	Broadwing Local Services, Inc.	Austin, TX 78746
63.	BTI	Raleigh, NC 27609-5746
64.	Budget Comm	Donalsonville, GA 31745-0573
65.	Budget Phone, Inc.	Shreveport, LA 71149-0360
66.	BudgeTel Systems, Inc.	North Miami, FL 33181-2536
67.	Business Communications, Inc.	Tallahassee, FL 32303-6140
68.	Buy-Tel Communications, Inc.	Colleyville, TX 76034-1170
69.	C.B. Telecomm, Inc.	Pinellas Park, FL 33781-3354
70.	C2C Fiber of Florida, Inc.	Houston, TX 77054-4633
71.	Cable & Wireless USA, Inc.	Vienna, VA 22182-2627
72.	Calpoint (Florida), LLC	Los Angeles, CA 90025-1538
73.	CAL-TEC Communications	Gainesville, FL 32601-6551
74.	Campus Communications Group, Inc.	Alexandria, VA 22314-2506
75.	Capital Exploration	Delray Beach, FL 33445-3504
76.	CariLink International, Inc.	Bay Harbor Island, FL 33154-2024
77.	Caronet, Inc.	St. Petersburg, FL 33701-5511
78.	CAT Communications	Roanoke, VA 24017-0129
79.	Cbeyond Communications, LLC	Atlanta, GA 30339-2205
80.	CCCFL, Inc.	Little Rock, AR 72201-3713
81.	Cellular One of Southwest Florida	Ft. Myers, FL 33912-1605
82.	Centennial Florida Switch Corp.	Wall, NJ 07719-9671
83.	Choctaw Communications, Inc.	Houston, TX 77074-2916
84.	CI2, Inc.	Atlanta, GA 30339-5967
85.	Ciera Network Systems, Inc.	Houston, TX 77079-1207
86.	Cinergy Communications Company	Evansville, IN 47710-1063
87.	City of Daytona Beach	Daytona Beach, FL 32115-2451
88.	City of Lakeland	Lakeland, FL 33801-5079
89.	City of Ocala	Ocala, FL 34470-4875
90.	City of Tallahassee	Tallahassee, FL 32301-1731
91.	CityNet Telecom, Inc.	Silver Spring, MD 20910-6331
92.	Citywide-Tel	Orlando, FL 32808-7704
93.	Columbia Telecommunications, Inc.	New Orleans, LA 70112-6017
94.	Communication Service Centers	Margate, FL 33068-2823
95.	Compass Telecommunications Incorporated	Scottsdale, AZ 85260-3107
96.	COMUSA, Inc.	Ormond Beach, FL 32175-0072
97.	Concert Communications Sales LLC	Reston, VA 20190-5668
98.	ConnectSouth Communications of Florida, Inc.	Austin, TX 78759-6301
99.	Consolidated Networks, Inc.	Jupiter, FL 33469-1747
100.	Convergent Communications Services, Inc.	Englewood, CO 80112-5834
101.	Coral Telecom, Inc.	Tallahassee, FL 32308-4334
102.	CoreComm Florida, Inc.	Chicago, IL 60610-4621
103.	Covad Communications Company	Atlanta, GA 30309-3574
104.	Covista, Inc.	Alpharetta, GA 30005-2293
105.	Cox Communications	Virginia Beach, VA 23462-1815

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	Company Name	City, State Zip
106.	CTC Communications Corp.	Waltham, MA 02451-1104
107.	Curbside Communications	Costa Mesa, CA 92626-4626
108.	DayStar Communications	Port Charlotte, FL 33954-1019
109.	Deland Actel, Inc.	South Daytona, FL 32119-3024
110.	Delta Phones, Inc.	Delhi, LA 71232-0784
111.	Dialtone Telecom, LLC	Tallahassee, FL 32317-2038
112.	Direct2Internet Corp.	Boca Raton, FL 33431-6491
113.	Direct-Tel USA, LLC	Deerfield Beach, FL 33442-1566
114.	Dominion Telecom, Inc.	Glen Allen, VA 23060-6742
115.	DPI-Teleconnect, LLC	Dallas, TX 75234-7627
116.	DSL Telecom, Inc.	Miami, FL 33132-1172
117.	DSLi	Miami, FL 33155-4468
118.	DSLnet Communications, LLC	New Haven, CT 06511-5960
119.	D-Tel, Inc.	Islandia, NY 11749-1411
120.	DTK Telecommunications, LLC	Woodinville, WA 98072-2789
121.	DV2, Inc.	Atlanta, GA 30303-2825
122.	Dynergy CLEC Communications, Inc.	2821 South Parker Rd., Ste. 700
123.	e.spire Communications, Inc.	Columbia, MD 21046-2506
124.	e.spire Communications, Inc.	Columbia, MD 21046-2506
125.	Eagle Telco, Inc.	New York, NY 10022-3342
126.	Easy Telephone Services Company	Tamarac, FL 33359-0007
127.	EATEL	Gonzales, LA 70737-4258
128.	Edge Connections, Inc.	Atlanta, GA 30342-1743
129.	El Paso Networks, LLC	Houston, TX 77002-5089
130.	eLEC Communications	New Rochelle, NY 10801-7214
131.	ElectroNet Intermedia Consulting, Inc.	Tallahassee, FL 32308-4425
132.	Electronic Technical Services (E.T.S.)	Ft. Walton Bch., FL 32547-3508
133.	eMeritus Communications, Inc.	Dallas, TX 75231-6436
134.	Enron Telecommunications, Inc.	Houston, TX 77002-7361
135.	EPICUS, Inc.	Lake Mary, FL 32746-3417
136.	Ernest Communications, Inc.	Norcross, GA 30071-1726
137.	Essential.Com, Inc.	Burlington, MA 01803-4503
138.	Eureka Telecom, LLC	New York, NY 10016-0601
139.	Everest Connections Corporation	Kansas City, MO 64112-2254
140.	Evolution Networks South, Inc.	Atlanta, GA 30338-7500
141.	Exario Telecom, Inc.	Parsippany, NJ 07054-3715
142.	Excel Telecommunications, Inc.	Dallas, TX 75231-6435
143.	EXCELINK COMMUNICATIONS, INC.	Clearwater, FL 33758-6434
144.	Express Phone Service	Pensacola, FL 32534-3141
145.	EZ Talk Communications, LLC	Stafford, TX 77477-4723
146.	FairPoint Communications Solutions Corp.	Charlotte, NC 28202-2695
147.	Fast Phones, Inc. of Alabama	Montgomery, AL 36120-0877
148.	Fiber Media, LLC	Hollywood, FL 33020-6607
149.	Firstmile Technologies, LLC	Westfield, IN 46074-8844
150.	Florida City-Link Communications, Inc.	Berthoud, CO 80513-8713
151.	Florida Comm South	Dallas, TX 75228-4851
152.	Florida Consolidated Multi-Media Services, Inc.	Gainesville, FL 32606-8127
153.	Florida Digital Network, Inc.	Orlando, FL 32801-1640
154.	Florida Municipal Power Agency	Orlando, FL 32819-9002
155.	Florida Phone Service, Inc.	Miami, FL 33183-2807
156.	Florida Phone Systems, Inc.	Gainesville, FL 32606-7346
157.	Florida Public Telecommunications Association, Inc.	Tallahassee, FL 32308-4334
158.	Florida Telephone Services, LLC	Longwood, FL 32750-6542
159.	Florida's Max-Tel Communications, Inc.	Alvord, TX 76225-0280

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	Company Name	City, State Zip
160.	Focal Communications Corporation of Florida	Chicago, IL 60601-1014
161.	Foxtel, Inc.	Reno, NV 89502-1674
162.	FPL FiberNet, LLC	Miami, FL 33102-5566
163.	Frontier Communications of America, Inc.	Rochester, NY 14646-0002
164.	Fusion Telecom	Ft. Lauderdale, FL 33309-1955
165.	Fuzion Wireless Communications Inc.	Boca Raton, FL 33487-4913
166.	GCI Globalcom, Inc.	Chicago, IL 60606-1231
167.	Genesis Communications International, Inc.	San Diego, CA 92130-2083
168.	Georgia Public Web, Inc.	Atlanta, GA 30346-2117
169.	Georgia Telephone Services, Inc.	Valdosta, GA 31601-5526
170.	Global Connection, Inc of America	Atlanta, GA 30340-4259
171.	Global Crossing Local Services, Inc.	Minneapolis, MN 55403-2420
172.	Global Crossing Telemanagement, Inc.	Minneapolis, MN 55403-2420
173.	Global Dialtone, Inc.	Port St. Lucie, FL 34985-7912
174.	Global Metro Networks Florida, LLC	Alexandria, VA 22314-2642
175.	Global NAPS, Inc.	Norwood, MA 02062-5232
176.	Global Telecom Systems, Inc.	Defuniak Springs, FL 33435-1906
177.	Global Telelink Services, Inc.	Atlanta, GA 30328-1649
178.	Globaltron Communications Corporation	Miami, FL 33132-2306
179.	Globcom, Inc.	Glenview, IL 60025-3771
180.	GoBeam Services, Inc.	Sunnyvale, CA 94086-4510
181.	Grande Communications Networks, Inc.	San Marcos, TX 78666-6730
182.	Group Long Distance, Inc.	Pompano Beach, FL 33060-6200
183.	GRU Communication Service/GRUCom/GRU	Gainesville, FL 32614-7117
184.	Gulf Coast Communications, Inc.	Pensacola, FL 32526-2146
185.	Hale and Father, Inc.	Randolph, MA 02368-1755
186.	Hayes Telecommunications Services, Inc.	Tallahassee, FL 32312-2915
187.	Heritage Technologies, Ltd.	Houston, TX 77092-7713
188.	High Tech Communications of Central Florida, Inc.	Ocala, FL 34470-7045
189.	HJN Telecom, Inc.	Alpharetta, GA 30005-2293
190.	Hosting-Network, Inc.	Ft. Myers, FL 33901-2911
191.	HTG Services, LLC	Coconut Grove, FL 33133-4741
192.	I Vantage Network Solutions	Las Vegas, NV 89121-7440
193.	ICG Telecom Group, Inc.	Englewood, CO 80112-5003
194.	IDS Telcom LLC	Miami, FL 33169-5131
195.	IE Com	
196.	IG2, Inc.	Kew Gardens, NY 11415-3600
197.	ILD	Ponte Vedra Beach, FL 32082-5042
198.	I-Link Communications, Inc.	Draper, UT 84020-7947
199.	Intelligence Network Online, Inc.	Clearwater, FL 33756-5903
200.	Intelogistics Corp.	Ft. Lauderdale, FL 33351-7357
201.	InterCept Communications Technologies, Inc.	Norcross, GA 30071-1370
202.	Interlink Telephony, Inc.	Jacksonville, FL 32254-3555
203.	Intermedia Communications, Inc.	Tallahassee, FL 32303-4131
204.	International Telcom, Ltd.	Seattle, WA 98119-4012
205.	Intrado Communications, Inc.	Boulder, CO 80301-3318
206.	IPVoice Communications, Inc.	Scottsdale, AZ 85260-3403
207.	ISN Communications	Miami, FL 33137-3244
208.	ITC^DeltaCom	Huntsville, AL 35802-4343
209.	ITS Telecommunications Systems, Inc.	Indiantown, FL 34956-0277
210.	King Communications & Services, Inc.	Naples, FL 33412-5848
211.	KingTel, Inc.	Deerfield Beach, FL 33441-6553
212.	Kissimmee Utility Authority	Kissimmee, FL 34742-3219
213.	KMC Data LLC	Lawrenceville, GA 20043-8119

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	Company Name	City, State Zip
214.	KMC Telecom III LLC	Lawrenceville, GA 30043-8119
215.	KMC Telecom V, Inc.	Lawrenceville, GA 30043-8119
216.	Knology of Florida, Inc.	West Point, GA 31833
217.	Lake Wellington Professional Centre	Wellington, FL 33414-5700
218.	LecStar Telecom, Inc.	Atlanta, GA 30339-3025
219.	Level 3 Communications, LLC	Bloomfield, CO 80021-8869
220.	LightWave Communications, LLC	Laurel, MD 20708-4226
221.	Lightyear Communications, Inc.	Louisville, KY 40223-4145
222.	Local Line America, Inc.	Arkon, OH 44310-0551
223.	Lone Star State Telephone Co.	Conroe, TX 77301-2857
224.	Looking Glass Networks, Inc.	Oak Brook, IL 60523-1940
225.	LPGA International Communications, LLC	Jensen Beach, FL 34957-3401
226.	Lyxom, Inc.	Lawrence, MA 01843-1749
227.	M.T.G.	Miami, FL 33159-2665
228.	Madison River Communications, LLC	Mebane, NC 27302-1167
229.	Maxcess, Inc.	Lake Mary, FL 32795-1419
230.	MCI WorldCom Communications, Inc.	Tallahassee, FL 32303-4131
231.	MCI WorldCom Network Services, Inc.	Tallahassee, FL 32303-4131
232.	MCImetro Access Transmission Services LLC	Tallahassee, FL 32303-4131
233.	McLeodUSA Telecommunications Services, Inc.	Cedar Rapids, IA 52406-3177
234.	Mercury Long Distance, Inc.	Philadelphia, PA 19106-4512
235.	Meridian Telecom, Inc.	Kissimmee, FL 34742-3247
236.	MET Communications, Inc.	Tampa, FL 33682-7180
237.	Metro FiberLink, Inc.	Delray Beach, FL 33445-7320
238.	Metromedia Fiber Network Services, Inc.	White Plains, NY 10601-1811
239.	Metropolitan Fiber Systems of Florida, Inc.	Atlanta, GA 30328-6117
240.	Metstream Communications, Inc.	Lake Oswego, OR 97035-0663
241.	MetTel	New York, NY 10005-2401
242.	Microsun Telecommunications, Inc.	Coral Springs, FL 33065-4167
243.	Midstate Telecommunications	Madison, TN 37116-0706
244.	Miketronics, Inc.	Aventura, FL 33180-2456
245.	Miracle Communications	Ft. Worth, TX 76105-0155
246.	Momentum Business Solutions, Inc.	Birmingham, AL 35216-2161
247.	Mpower Communications Corp.	
248.	MYCOM INS AGENCY CORP.	Miami, FL 33169-4252
249.	MY-TEL INC.	Palm Bay, FL 32905-3566
250.	National Telecom, LLC	Crossville, TN 38555-0667
251.	NationNet Communications Corporation	Jackson, TN 38305-3944
252.	Navigator Telecommunications, LLC.	North Little Rock, AR 72113-0860
253.	Net One International, Inc.	Winter Park, FL 32792-6808
254.	Netcon Telcom, Inc.	Ft. Walton Beach, FL 32549-0305
255.	NET-tel Corporation	Washington, DC 20007-4401
256.	Network Information Solutions, Inc.	New York, NY 10006-1901
257.	Network Telephone Corporation	Pensacola, FL 32501-5937
258.	NetworkIP, LLC	Longview, TX 75601-6358
259.	New Access Communications LLC	Minneapolis, MN 55402-1838
260.	New Connects, Inc.	Irving, TX 75063-2506
261.	New Edge Networks	Vancouver, WA 98661-2969
262.	NewPhone	Metairie, LA 70002-3697
263.	NewSouth Communications Corp.	Greenville, SC 29601-2719
264.	nii Communications, Ltd.	San Antonio, TX 78232-1585
265.	Norcom, Inc.	Boca Raton, FL 33432-6003
266.	North American Telecommunications Corporation	Ft. Lauderdale, FL 33301-1803
267.	North County Communications Corporation	San Diego, CA 92110

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	Company Name	City, State Zip
268.	North Palm Beach Telephone Company	Palm Beach Gardens, FL 33410
269.	Novus Communications, Inc.	Sebring, FL 33872-2170
270.	NOW Communications, Inc.	Lawrenceville, GA 30043-5578
271.	Ntegrity Telecontent Services, Inc.	Baltimore, MD 21202-4436
272.	NTERA, Inc.	Miami, FL 33169-5818
273.	NUI Telecom, Inc.	Bedminster, NJ 07921
274.	NuStar Communications Corp.	Nashville, TN 37203-3014
275.	NuVox Communications, Inc.	Greenville, SC 29601-2171
276.	NxGen Networks, Inc.	Denver, CO 80203-4519
277.	O1 Communications of Florida, LLC	Dallas, TX 75287-6912
278.	Ocius Communications, Inc.	Altamonte Springs, FL 32714-2574
279.	Oltronics, Inc.	Orlando, FL 32811-7374
280.	OneStar Communications, LLC	Evansville, IN 47715-8152
281.	OnFiber Carrier Services, Inc.	San Francisco, CA 94150-2173
282.	OpTel	Dallas, TX 75247-5010
283.	Opticom, a Division of One Call Communications, Inc.	Carmel, IN 46032-5650
284.	Orlando Telephone Company	Orlando, FL 32811-6541
285.	Oronoco Networks, Inc.	Coral Gables, FL 33114-0866
286.	Pacific Centrex Services, Inc.	North Hollywood, CA 91605-6312
287.	PaeTec Communications, Inc.	Fairport, NY 14450-4223
288.	Palm Beach Community College	Lake Worth, FL 33461-4796
289.	Palm Beach Telephone Company	West Palm Beach, FL 33406-1406
290.	PARCOM Communications, Inc.	Sarasota, FL 34237-3413
291.	PatriotCom, Inc.	Miami, FL 33132-2344
292.	Phantom Networks, Inc.	Fort Lauderdale, FL 33311-3924
293.	Phone-Link, Inc.	LaGrange, KY 40031-1060
294.	Phone-Out/Phone-On	Leesburg, FL 34748-4388
295.	Phones for All	Addison, TX 75001-3147
296.	Pilgrim Telephone, Inc.	Cambridge, MA 02139-1562
297.	Pinnacle Telcom, Inc.	St. Petersburg, FL 33743-1692
298.	Positive Investments, Inc.	Destin, FL 32540-5701
299.	PowerNet Global Communications	West Chester, OH 45071-1848
300.	Premiere Network Services, Inc.	DeSoto, TX 75115-8301
301.	Primus Telecommunications, Inc.	McLean, VA 22102-4302
302.	Priority Link	Addison, TX 75001-3681
303.	Pro Telecom, Inc.	Panacea, FL 32346-0970
304.	ProfitLab, Inc.	Greenville, SC 29607-1918
305.	Progress Telecommunications Corporation	St. Petersburg, FL 33701-5511
306.	Public Telephone Network, Inc.	Miami, FL 33127-1109
307.	Quality Telephone Inc.	Dallas, TX 75214-1048
308.	Quantum Phone Communications, LLC	Hammond, LA 70403-6043
309.	QuantumShift Communications, Inc.	Novato, CA 94945-5000
310.	Quick Connects	Tallahassee, FL 32315-3745
311.	Qwest Communications Corporation	Denver, CO 80202-2613
312.	Qwest Interprise America, Inc.	Denver, CO 80202-2658
313.	R & D Network Services, Inc.	Miami, FL 33231-0428
314.	RCN Telecom Services, Inc.	Princeton, NJ 08540-6251
315.	RCP Services	Lake Forest, IL 60045-2583
316.	Re-Connection Connection	Ft. Lauderdale, FL 33310-1252
317.	ReFlex Communications, Inc.	Seattle, WA 98104-3809
318.	REI Communications	Bartow, FL 33831-1905
319.	Resort Hospitality Services, Ltd.	Knoxville, TN 37940-1038
320.	ReTel Communications, Inc.	Panama City, FL 32406-5577
321.	Rhythms Links Inc.	Englewood, CO 80112-3401

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322.	Ring Connection, Inc.	Crestview, FL 32536-0535
323.	S.F.M.&T., Inc.	Miami, FL 33169-5811
324.	SanTel Communications	Daytona Beach, FL 32128-6753
325.	SATCOM Communication	Maramar, FL 33023-3988
326.	SBA Broadband Services, Inc.	Pelham, AL 35124-1165
327.	SBC Telecom, Inc.	San Antonio, TX 78205-3702
328.	Second Chance Phone	Brooksville, FL 34605-0487
329.	ServiSense.com, Inc.	Newton, MA 02459-3302
330.	Seven Bridges Communications, LLC	Hope Hull, AL 36043-4022
331.	Shands Teaching Hospital and Clinics, Inc.	Gainesville, FL 32610-0366
332.	Sigma Networks Telecommunications, Inc.	San Jose, CA 95126-3449
333.	Simply Communications	Winter Park, FL 32792-9388
334.	Smart City Networks	Montvale, NJ 07645-2132
335.	Smart City Solutions, LLC	Lake Buena Vista, FL 32830-2555
336.	Soapstone Telecom LLC	Corvallis, OR 97333-4187
337.	Southeast Telephone Company	Westbury, NY 11590-6603
338.	Southeastern Services, Inc.	Macclenny, FL 32063-0365
339.	Southern Light, LLC	Mobile, AL 36691-1127
340.	Southern ReConnect, Inc.	Mobile, AL 36607-1809
341.	Southern Telcom Network, Inc.	Mountain Home, AR 72654-1161
342.	Southern Telecom	Atlanta, GA 30319-1468
343.	Speedy Reconnect, Inc.	Metairie, LA 70002-4910
344.	Sphera Networks	Edison, NJ 08818
345.	Sprint Communications Company Limited Partnership	Tallahassee, FL 32316-2214
346.	St. Johns Estates	Altamonte Springs, FL 32714-2553
347.	State Discount Telephone, LLC	Huntsville, TX 77340-5143
348.	Strategic Technologies, Inc.	Miami, FL 33172-3160
349.	Structus TeleSystems, Inc.	Columbia, SC 29201-2876
350.	Suntel Metro, Inc.	Orlando, FL 32878-1119
351.	Sun-Tel USA, Inc.	Jacksonville, FL 32257-5963
352.	Supra Telecommunications and Information Systems, Inc.	Tallahassee, FL 32301-5027
353.	SwiftTel	Melbourne, FL 32904-1030
354.	Talk America Inc.	Orlando, FL 32826-2936
355.	TalkingNets Holdings, LLC	Wilmington, NC 28405-3541
356.	Tallahassee Community College	Tallahassee, FL 32304-2895
357.	Tallahassee Memorial Telephone Company	Tallahassee, FL 32308-4638
358.	Tallahassee Telephone Exchange, Inc.	Tallahassee, FL 32302-3042
359.	TCG South Florida	Atlanta, GA 30309-3579
360.	Tel Com Plus	Clearwater, FL 33760-4837
361.	Tel West Communications, LLC	Seattle, WA 98124-6747
362.	TeleCents Communications, Inc.	Walled Lake, MI 48390-1323
363.	Telecom Connection Corp.	Boynton Beach, FL 33435-4027
364.	TeleConex	Pensacola, FL 32507-3644
365.	Telefyne Incorporated	Pace, FL 32571-8870
366.	TelePacific Communications	Los Angeles, CA 90071-2201
367.	Telepak Networks, Inc.	Jackson, MS 39201-3399
368.	Telephone One Inc.	Coral Gables, FL 33134-3001
369.	Telephone Systems of Georgia, Inc.	Tallahassee, FL 32301-2242
370.	Telephone USA	West Palm Beach, FL 33409-5075
371.	Telergy Network Services, Inc.	East Syracuse, NY 13057-1399
372.	Telicor Inc.	Seattle, WA 98119-4191
373.	Teligent Services, Inc.	Herndon, VA 20170-5281
374.	TelNet.com, Inc.	Tampa, FL 33679-8186
375.	TelQuest Communications Corp.	Naples, FL 34110-1443

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	Company Name	City, State Zip
376.	Telscape Communications	Roswell, GA 30076-3896
377.	Telseon Carrier Services, Inc.	Englewood, CO 80111-6015
378.	Telsys, Inc.	Altadena, CA 91001-1736
379.	The Mobile Phone Company, Inc.	Ft. Lauderdale, FL 33308-2661
380.	Time Warner Communications	Stamford, CT 06902-7475
381.	Time Warner Telecom of Florida, LP	Franklin, TN 37069-4002
382.	T-Netix, Inc.	Dallas, TX 75370-1028
383.	TotalCom America Corporation	Miami, FL 33132-2517
384.	TOTALink of FLorida, LLC % Utilicom Networks, LLC	Franklin, MA 02038-3156
385.	Touch 1 Communications, Inc.	Atmore, AL 36502-3513
386.	Tristar Communications	Pompano Beach, FL 33069-5911
387.	UAI of Florida, Inc.	Chicago, IL 60606-6416
388.	Unicom Communications, LLC	Franklin, NC 28734-0796
389.	United Communications HUB, Inc.	Pasadena, CA 91101-4840
390.	Universal Telecom, Inc.	LaGrange, KY 40031-0679
391.	Universal Wireless	Delray Beach, FL 33445-4642
392.	UniversalCom, Inc.	Greenville, SC 29601-2719
393.	University Club Communications, LLC	Tallahassee, FL 32303-6140
394.	URJET Backbone Network, Inc.	Irvine, CA 92614-7129
395.	US LEC of Florida, Inc.	Charlotte, NC 28211-3599
396.	US South Communications, Inc.	Atlanta, GA 30303-1032
397.	US Telecom Services, Inc.	St. Petersburg, FL 33731-1068
398.	USA Telecom, Inc.	Dania, FL 33312-6970
399.	USA Telephone, Inc.	North Miami Beach, FL 33162-4716
400.	USLD Communications, Inc.	Denver, CO 80202-2613
401.	Utility Board of the City of Key West - City Electric System	Key West, FL 33040-6100
402.	VarTec Telecom, Inc.	Dallas, TX 75235-2306
403.	VBNet, Incorporated	Orlando, FL 32819-8111
404.	Verizon Advanced Data, Inc.	New York, NY 10036-2708
405.	Verizon Avenue	Lake Forest, IL 60045-2583
406.	Verizon Florida, Inc.	Tampa, FL 33602-5182
407.	Verizon Select Services, Inc.	Tampa, FL 33602-5167
408.	VGM International, Inc.	Bay Harbor Island, FL 33154-2043
409.	Vision Prepaid Services, Inc.	Gulf Breeze, FL 32561-4858
410.	Vitcom Corporation	New York, NY 10038-3101
411.	VIVO-FLA, LLC	Birmingham, MI 48009-6863
412.	Wholesale Carrier Services, Inc.	Boca Raton, FL 33433-5511
413.	Williams Local Network, LLC	Tulsa, OK 74103
414.	WinStar Wireless, Inc.	Washington, DC 20036-5625
415.	XO Florida, Inc.	Nashville, TN 37201-2315
416.	Yipes Transmission, Inc.	San Francisco, CA 94104-3803
417.	Zephion Networks Communications, Inc.	Falls Church, VA 22042-1018
418.	Z-Tel Communications, Inc.	Tampa, FL 33602-5706