



State of Missouri Communications Cost Allocation Plan Fiscal Year 2017

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**Background and General
Description**

COMMUNICATIONS CAP



Purpose

This document outlines the methodology utilized by the Information Technology Services Division (ITSD) in developing rates for communications services provided to state agencies, colleges and universities. The authorization to develop rate structures and establish a charging system is provided under Chapter 37, RSMo.

The estimated expenditures and rates set forth herein provide the means for ensuring full cost-recovery based on agency's use of services. As with any plan, actual events require close monitoring and revisions to the rates may be required.

Pricing Concepts

The major objective for the Information Technology Services Division is to provide state agencies and organizations with cost effective and efficient shared communications resources. Achievement of this objective results in improved productivity in state government and more effective delivery of governmental services to the citizens of Missouri.

The charging systems or objectives associated with this Cost Allocation Plan (CAP) methodology are summarized as follows:

1. Establish usage sensitive pricing of services
2. Provide rate stabilization
3. Develop a cost for the total communications service package which is less than what can be obtained elsewhere
4. Provide agencies maximum flexibility in controlling use
5. Minimize the impact of future rate changes and/or cost increases
6. Maximize economies of scale opportunities available through resource sharing

Expenditure Planning

One of the key components of this Cost Allocation Plan is developing an overall schedule and general allocation of anticipated expenditures. The expenditure plan contained in this report reflects the best estimate of the costs required to provide communications services to state agencies throughout the fiscal year.

Development Methodology

A cost-based methodology was employed in establishing the billing rates detailed in this plan. The benefits of this cost based methodology are two fold. First, as a full cost approach. Both direct and indirect costs are included, and the under-or over-recovery of communications total budget costs is minimized. Second, it provides an equitable method for cost recovery; i.e., the rate is based on the amount of resources utilized.

The methodology for development of this Cost Allocation Plan can generally be summarized in the following nine steps:



1. Determine Services Provided

The types of services provided by the Network and Telecommunications sections are based on the requirements of state agencies and services are comparable to those provided by regulated telephone utilities, facility-based carriers, other common carriers and resellers of inter-city telecommunications services. These services are provided by the Office of Administration when the state can obtain enhanced shared features and realize economies of scale.

2. Establish Units of Service

The unit of service utilized to measure the volume of service provided for each service type was established based on three major criteria: relationship to the function performed, measurability and level of control which can be exercised by the customer agencies.

3. Compile Estimates of Utilization

Prior Fiscal Year utilization of each service category was compiled and analyzed. The category actuals were then used as a basis for CAP utilization projections or estimates.

4. Identify Types of Costs

Two basic types of costs were identified: direct and indirect. Direct costs are those costs that can be identified with providing a type of service. Indirect costs are those costs that cannot be directly identified with providing a specific type of service but relate to UC and Network costs as a whole.

5. Determine Direct Costs

Budgeted expense, equipment and personal service costs that could be directly identified with providing a specific type of service, were accumulated to determine total allocated direct cost by type of service. In some cases, an expense or equipment cost applies to more than one service category. The cost is then split by percentage among the appropriate type of service.

6. Determine Indirect Costs

Budgeted expense, equipment and personal service costs that relate to UC and Network services, but cannot be directly identified with providing a specific type of service, were accumulated to determine the total indirect cost by type of service and considered overhead expense. These costs were divided across all service categories.

7. Summarized Total Cost by Service

Total cost by service was determined by adding the direct and indirect allocated costs.

8. Calculate Cost Per Unit of Service

The cost per unit of service was calculated by dividing the total annual cost by the total estimated annual utilization. The cost per unit may be adjusted mid-plan year to accommodate significant fluctuations in utilization.

9. Depreciation

Asset depreciation is considered in accordance with the requirements of OMB Circular A-87.



Service Category Definitions

Centrex Access

The basic unit of service provided by ITSD Communications to customers is access (dial tone). CenturyLink provides this service under the service mark of Centrex in Jefferson City, Rolla, Warrensburg and Maryville. This basic unit of service allows customers the ability to receive calls from any customer of the world-wide telecommunications system. Also associated with this basic service unit is the unlimited ability of Jefferson City, Rolla, Warrensburg, Maryville and other CenturyLink Centrex customers to call other customers within their system with four or five digit dialing. Major cost components identified with this service element are the line charges and features which allow transmission and receipt of calls from the nationwide toll centers and the Federal End User charge.

Long Distance

Long Distance is the cost-per-minute for the usage that either completes or originates from a state telephone line, UC, PLEXAR, or Centrex.

PLEXAR Access

Access (dial tone) provided to customers in cities served by AT&T Telephone Company has the trademark of PLEXAR. This basic unit of service allows customers to receive calls from any caller on the worldwide telecommunications system. It also permits customers to have the unlimited ability to place calls on the local and state networks and allows five digit dialing within their system from most sites. The major cost elements associated with this service are the feature and station line charges and the Federal End User charge.

Data Circuits

Data circuit service is made up of the costs that are used for the transportation of data applications. In general, this service provides the agencies with the order processing, billing functions and contract administration required with data circuits. The cost elements with this service are the circuit costs and an administrative fee.

Voice Mail

This category is for voice mail services.

Pass-Through Telephone Service

Pass-Through service is the process by which the charges billed by the telephone vendors are in turn billed to the appropriate agencies. Charges incurred for services such as local service, toll and calling cards are billed to the agencies with an administrative fee added. Outstanding charges for leased UC phones are billed in this category.

Toll-Free

This category is for Toll-Free service such as 800, 888, 877, 866 and 855 numbers where agencies pay the per-call costs instead of the caller. The cost elements for this service include circuit, per minute service costs and an administrative fee.



Internet Services

Internet Services supplied to state agencies include bandwidth, redundancy, security measures, monitoring and troubleshooting. These services provide state employees access to information available on the Internet, as well as allowing state agencies to provide information and e-business services to our customers. Agencies can also additionally utilize these services for VPN (virtual private network) connectivity to remote users or offices, as well as other services such as videoconferencing to locations outside the boundaries of state government.

Network and Network Enhancements

Network services represent the core network and security functions provided to all state agencies. ITSD serves as the enabler for connectivity from any agency to enterprise applications (e.g., SAM II). Additionally, ITSD provides inter-agency electronic communications, and agency connectivity to the Internet. These services also provide various levels of security and redundancy for the customer structures. Furthermore, technical and consulting services are provided to agencies through this category.

Network core are items supporting the backbone infrastructure that handles transport and routing. It does not include layer 3 boundaries for agencies and services. Network core centralized in the State Data Center and can reach as far as our Points of Presence (POP) in 900 Walnut, St. Louis; 1904 LeCompte, Springfield; and 1102 Grand, Kansas City.

Network Enhancements allow substantial investments to be made in consolidation to bring many locations up to standard Power over Ethernet switching and voice gateway level routing equipment. These devices paved the way for Unified Communications, wireless access points, camera surveillance, and various networked sensors. Many devices now draw power from the network stack and require more advanced routers for data, video, and voice.

Wireless Service

Wireless Service includes the purchase of wireless devices and the associated monthly service including calls, plans and features.

Unified Communications (UC)

The UC category supports the state's Voice Over Internet Protocol (VoIP) network to include, but is not limited to, Cisco Phones, Personal Communicator, Telepresence, Mobility and Meeting Place. These services allow for improved collaboration and communication in the most efficient and effective methods available within the state.

Unified Communications (UC) Call Center

Call Center costs are for monthly PRI charges required for Call Center agents. Call Center Licenses and CVP Ports are billed directly to appropriate agencies outside of the CAP.



Detailed Budget

Personal Service		Budget Amount	Budget Amount
		FY16	FY17
80%	Accountant I	\$ 23,741	\$ 27,957
100%	Accountant I	\$ 34,596	\$ 34,946
50%	Accountant I	\$ 26,388	\$ 17,474
100%	Accountant I	\$ 34,596	\$ 34,946
25%	Accountant I	\$ 11,919	\$ 8,738
5%	Accounting Specialist III	\$ 2,634	\$ 2,662
40%	Admin Office Support Assistant	\$ 12,480	\$ 12,607
100%	Information Technology Supv	\$ 66,060	\$ 61,322
100%	Computer Info Tech Spec III	\$ 67,488	\$ -
20%	Computer Info Tech Spec III	\$ 14,107	\$ -
100%	Computer Info Tech Supv II	\$ 66,060	\$ -
100%	Data Processing Manager	\$ 83,500	\$ 84,337
21%	Designated Principal Asst Dept	\$ 19,248	\$ 19,534
21%	Designated Principal Asst Div	\$ 23,205	\$ 20,794
15%	Executive I	\$ 8,649	\$ 8,738
21%	Executive I	\$ 8,719	\$ 8,811
25%	Executive I	\$ 8,649	\$ 8,738
25%	Executive I	\$ 8,649	\$ 8,738
25%	Executive II	\$ -	\$ 9,224
50%	Fiscal & Administrative Mgr B1	\$ 28,577	\$ 28,864
50%	Fiscal & Administrative Mgr B2	\$ 33,688	\$ 34,026
10%	Fiscal & Administrative Mgr B1	\$ 5,850	\$ 5,911
25%	Fiscal & Administrative Mgr B2	\$ 16,844	\$ 17,014
25%	Fiscal & Administrative Mgr B2	\$ 17,875	\$ 17,002
25%	Fiscal & Administrative Mgr B2	\$ 16,331	\$ 18,056
25%	Fiscal & Administrative Mgr B2	\$ 16,332	\$ 16,496
25%	Fiscal & Administrative Mgr B2	\$ 16,969	\$ 16,497
25%	Fiscal & Administrative Mgr B3	\$ 18,625	\$ 18,813
100%	Information Technologist I	\$ 35,844	\$ 31,514
100%	Information Technologist II	\$ 35,844	\$ 36,206
100%	Information Technologist II	\$ 36,192	\$ 36,890
100%	Information Technologist III	\$ 46,920	\$ 46,070
100%	Information Technologist III	\$ 50,040	\$ 42,710
100%	Information Technologist II	\$ 43,000	\$ 36,206
100%	Information Technologist III	\$ 52,680	\$ 47,894
25%	Information Technology Spec I	\$ 15,180	\$ 14,132
50%	Information Technology Spec I	\$ 33,744	\$ -
10%	Information Technology Spec I	\$ 5,486	
10%	Information Technology Spec I	\$ 5,952	
80%	Information Technologist IV	\$ 40,000	\$ 54,530
100%	Information Technology Spec I	\$ 10,798	\$ 55,418
90%	Information Technology Spec II	\$ 7,679	\$ 55,201
20%	Information Technology Spec II	\$ 13,989	\$ 13,634

COMMUNICATIONS CAP



	Budget Amount FY16	Budget Amount FY17
100% Information Technology Spec II	\$ 54,864	\$ 61,334
100% Information Technology Sr Spec	\$ 70,392	\$ 71,102
100% Information Technology Supv	\$ 60,720	\$ 68,162
25% Procurement Ofcr I	\$ 12,387	\$ 11,519
25% Procurement Ofcr II	\$ 11,403	\$ 12,512
25% Procurement Ofcr II	\$ 12,387	\$ 12,512
100% Senior Office Support	\$ 26,429	\$ 25,826
94% Senior Office Support	\$ 29,124	\$ 26,690
100% Senior Office Support	\$ 30,612	\$ 29,414
		\$ -
PART-TIME		\$ 11,522
Staff Increases		\$ 15,002
	\$ -	\$ -
Subtotal Personal Service	\$ 1,433,444	\$ 1,358,247
Fringe Benefits	\$ 642,613	\$ 608,902
Total Personnel Service:	\$ 2,076,057	\$ 1,967,149

Allocation percentages and job titles may vary from FY16 to FY17. Therefore, the Personal Service and Fringe costs for FY16 are aggregate amounts.



Detailed Budget, continued

Communications Expense and Equipment		Budget Amount FY16	Budget Amount FY17
J901	Hardware and Software Maintenance	\$ 530,695	\$ 530,695
J911	Wiring and General Services	\$ 15,000	\$ 6,000
JI71	Equipment and Maintenance	\$ 317,713	\$ 317,713
JI72	State Network Charges	\$ 181,952	\$ 185,910
JI73	MoreNet Charges	\$ 121,355	\$ 116,925
JR01	Centrex Lines - CenturyLink	\$ 957,436	\$ 720,000
JR02	Centrex Tax & Misc - CenturyLink	\$ 87,686	\$ 72,000
JR03	Centrex Fed End User - CenturyLink	\$ 138,342	\$ 120,000
JR04	T1 Terminations/Plexar Tie Lines	\$ 73,527	\$ 20,989
JR05	Dedicated Long Distance Usage	\$ 828,267	\$ 660,000
JR06	Plexar Lines - AT&T	\$ 1,309,023	\$ 650,000
JR07	Plexar VFG Trunks - AT&T	\$ 1,184,148	\$ 1,682,519
JR08	Plex Fed End User 9ZR - AT&T	\$ 701,366	\$ 600,000
JR09	Plex Fed End Eucl Credit - AT&T	\$ (609,186)	\$ (490,000)
JR10	Plexar Miscellaneous - AT&T	\$ 196,947	\$ 263,801
JR12	Voice Mail Circuits	\$ 279,963	\$ -
JR13	Centrex Pass-Through - CenturyLink	\$ 344,885	\$ 344,885
JR14	Toll-Free Service Pass-Through	\$ 55,906	\$ 88,100
JR16	Plexar Pass-Through - AT&T	\$ 189,687	\$ 111,000
JR17	Business Line/Local Broadband	\$ 2,263,360	\$ 2,554,466
JR18	Toll Usage on Business & Plexar Invoices	\$ 1,546	\$ 2,065
JR19	Directory Assistance	\$ 3,049	\$ 1,011
JR21	Toll-Free Termination Charges - AT&T	\$ 56,700	\$ -
JR22	Jeff City Music On Hold Circuit	\$ 378	\$ 378
JR24	Metropolitan Area Network Services	\$ 959,472	\$ -
JR25	SMDR - AT&T	\$ 835	\$ 835
JR26	ARS Package - AT&T	\$ 1,801	\$ 1,801
JR27	Satellite Services	\$ 381,179	\$ 380,279
JR28	Contract Long Distance Service	\$ 747,386	\$ 445,509
JR29	Calling Card Usage	\$ 63,881	\$ 27,494
JR30	Frame Relay & Tariff Circuits	\$ 675,633	\$ 844,000
JR34	LD Terminations (Plexar) - AT&T	\$ 84,552	\$ 84,552
JR37	ISDN-PRI	\$ 1,026,035	\$ 978,000
JR38	Tolls on Centrex Invoices	\$ 1,966	\$ 1,966
JR39	Voice Grade Circuits	\$ 26,966	\$ 36,000
JR41	Wireless Services	\$ 4,750,000	\$ 5,526,300
JR45	Toll Free Usage	\$ 3,536,615	\$ 2,950,000
JR46	MPLS	\$ 6,000,000	\$ 3,173,700
JR47	International Usage	\$ 86,772	\$ 10,000
JR49	Adobe Connect	\$ 42,000	\$ 22,285
JR50	Subscription Voice Mail	\$ 281	\$ 281
JR51	Conference Call Services	\$ 101,434	\$ 39,600
JR52	Network Directory Listing	\$ 3,696	\$ 3,696
JR53	Ethernet	\$ 421,438	\$ 1,800,000



Detailed Budget (Continued)

Communications Expense and Equipment (continued)

	Budget Amount FY16	Budget Amount FY17
JT40 Voice Mail Maintenance	\$ 21,600	\$ -
JU04 Core UC Structure	\$ 166,000	\$ 282,300
JU05 Maintenance on Core Structure	\$ 139,748	\$ 1,294,095
JU08 PSTN Trunks	\$ 905,916	\$ 935,000
JU10 Client License	\$ 11,273	\$ 11,880
JU11 End-User Devices	\$ 28,650	\$ -
JU13 UC Loan Amt Core	\$ 1,578,937	\$ 1,572,161
JU15 UC LD Circuits	\$ -	\$ 66,470
JU23 Call Center	\$ 189,143	\$ 39,600
JU24 UC Loan Pass-through-Devices	\$ 552,958	\$ 408,000
JU25 Network Enhancements	\$ 1,098,148	\$ 1,098,148
Total Expense & Equipment	\$ 32,834,058	\$ 30,592,410



Detailed Budget (Continued)

General Support (Indirect) Expense and Equipment

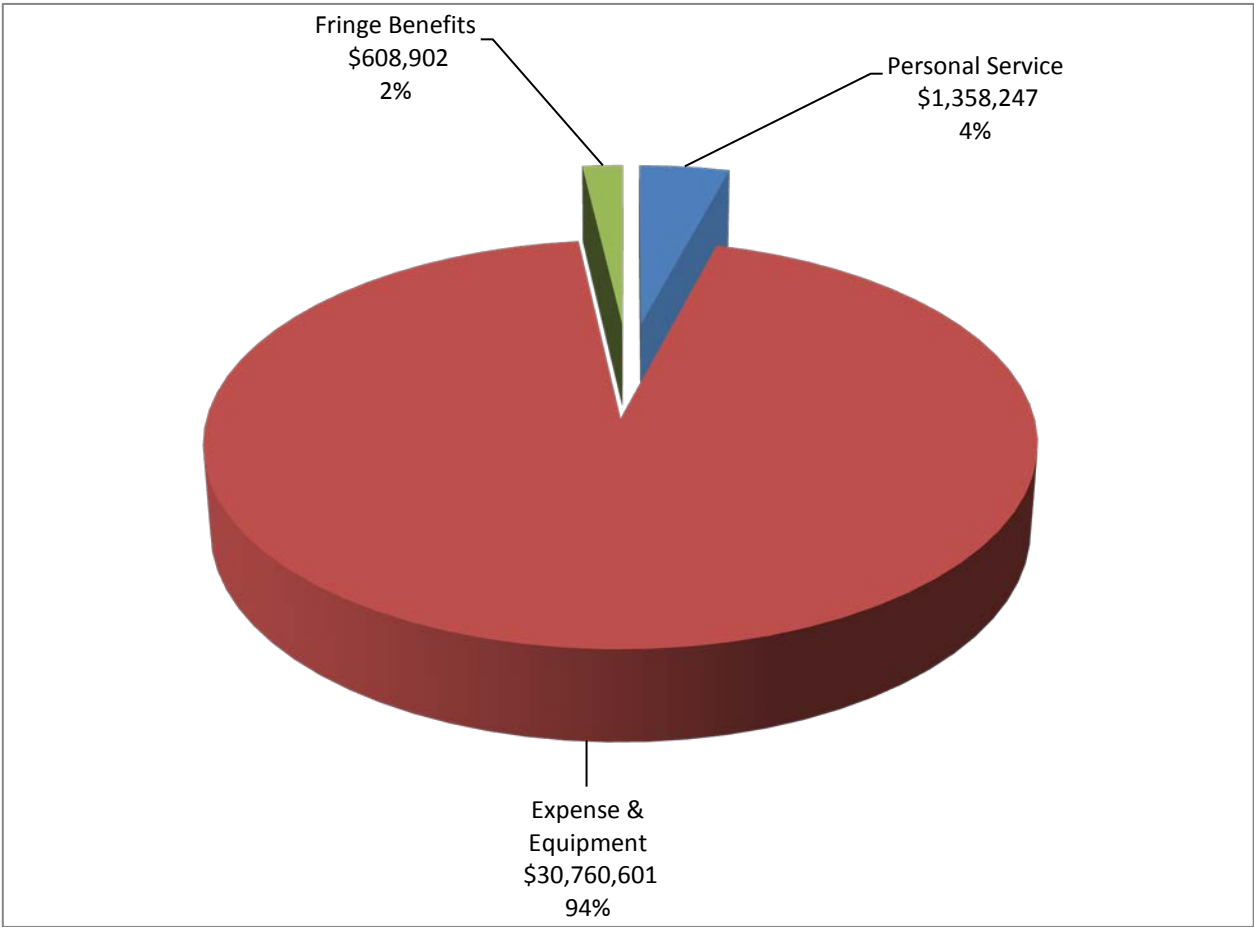
	Budget Amount FY16	Budget Amount FY17
JT02 In State Mileage	\$ 1,550	\$ 1,550
JT03 In State Lodging	\$ 2,100	\$ 2,100
JT04 In State Meals	\$ 550	\$ 550
JT05 In State Other	\$ 250	\$ 250
JT07 Commerical Trans.	\$ 1,000	\$ 1,000
JT08 Out State Lodging	\$ 3,000	\$ 3,000
JT09 Out State Meals	\$ 1,000	\$ 1,000
JT10 Out State Other	\$ 775	\$ 775
JT12 Postage	\$ 2,000	\$ 2,000
JT13 Subscriptions	\$ 1,400	\$ 1,400
JT14 Other Admin Supplies	\$ 33	\$ 350
JT16 Motor Fuel	\$ 20	\$ -
JT17 Memberships	\$ 4,500	\$ 4,500
JT18 Training	\$ 19,000	\$ 13,000
JT20 Telcom Supplies	\$ 300	\$ 300
JT21 Telcom Charges	\$ 26,000	\$ 16,600
JT22 Internet	\$ 11,000	\$ 55
JT23 Cellular charges	\$ 10,000	\$ 4,500
JT24 Pagers	\$ 295	\$ -
JT28 SDC charges	\$ 36,000	\$ 26,561
JT31 Software Maintenance-Calero	\$ 20,250	\$ 37,000
JT34 Desktop Computer Equip.	\$ 7,200	\$ 7,200
JT35 Software	\$ 162,684	\$ 40,500
JT37 Office Furniture	\$ 4,000	\$ 4,000
Subtotal General Support (Indirect)	\$ 314,907	\$ 168,191
Total E&E Budget	\$ 33,148,966	\$ 30,760,601
Total Budget	\$ 35,225,022	\$ 32,727,749



Budget By Category for Revolving Fund

	Budget Amount FY16	Budget Amount FY17
Personal Service	\$ 1,433,444	\$ 1,358,247
Expense & Equipment	\$ 33,148,966	\$ 30,760,601
Fringe Benefits	\$ 642,613	\$ 608,902
Total	\$ 35,225,022	\$ 32,727,749

Communications Expenses By Category





Centrex Access

Annual Estimated Utilization:

Number of Lines:
60,144

Estimated Cost:

Direct Allocation - Expense and Equipment

Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR01	Centrex Lines - CenturyLink	\$ 957,436	\$ 720,000
JR02	Centrex Tax & Misc - CenturyLink	\$ 87,686	\$ 72,000
JR03	Centrex Fed End User - CenturyLink	\$ 138,342	\$ 120,000
JR22	Jeff City Music On Hold Circuit	\$ 378	\$ 378
Subtotal Expense and Equipment		\$ 1,183,843	\$ 912,378
Direct Personnel		\$ 56,413	\$ 60,442
Total Direct Allocation		\$ 1,240,256	\$ 972,820
Indirect Costs Allocated		\$ 31,393	\$ 22,063
Total Allocated Costs		\$ 1,271,649	\$ 994,883
Total Collectable Costs		\$ 1,271,649	\$ 994,883

Collectable Costs / Utilization = Monthly Access Line Cost

$$\frac{\$994,883.40}{60,144} = \$ 16.54$$

Additional Centrex Charges:

FEDERAL UNIVERSAL FUND*	\$ 0.50
MISSOURI UNIVERSAL FUND*	\$ 0.03
TOTAL	\$ 17.07

*Additional charges may increase or decrease throughout the Fiscal Year depending on FCC or PSC rulings.



Long Distance

Annual Estimated Utilization (in minutes):
27,970,279

Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR04	T1 Terminations/Plexar Tie Lines	\$ 73,527	\$ 20,989
JR05	Dedicated Long Distance Usage	\$ 828,267	\$ 660,000
JR07	Plexar VFG Trunks - AT&T	\$ 592,074	\$ 841,260
JR25	SMDR - AT&T	\$ 835	\$ 835
JR26	ARS Package - AT&T	\$ 1,801	\$ 1,801
JR28	Contract Long Distance Service	\$ 747,386	\$ 445,509
JR34	LD Terminations (Plexar) - AT&T	\$ 84,552	\$ 84,552
JR52	Network Directory Listing	\$ 3,696	\$ 3,696
JU15	UC LD Circuits	\$ -	\$ 66,470
	Subtotal Expense and Equipment	\$ 2,332,139	\$ 2,125,112
	Direct Personnel	\$ 122,215	\$ 104,497
	Total Direct Allocation	\$ 2,454,354	\$ 2,229,610
	Indirect Costs Allocated	\$ 62,124	\$ 50,567
	Total Allocated Costs	\$ 2,516,478	\$ 2,280,176
	Total Collectable Costs	\$ 2,516,478	\$ 2,280,176

Collectable Costs / Utilization = State Long Distance Cost Per Minute

$$\frac{\$2,280,176}{27,970,279} = \$ 0.0815$$

In FY16, Dedicated Long Distance and Switched Long Distance were each billed in separate categories. For FY17, the Dedicated and Switched Long Distance are combined into one Long Distance category. For FY17, JR28 is in the Long Distance category rather than Switched Long Distance.

**Switched Long Distance**

Annual Estimated Utilization (in minutes):
11,185,509

Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR28	Contract Long Distance Service	\$ 747,386	
	Subtotal Expense and Equipment	\$ 747,386	
	Direct Personnel	\$ 68,495	
	Total Direct Allocation	\$ 815,881	
	Indirect Costs Allocated	\$ 20,651	
	Total Allocated Costs	\$ 836,533	
	Total Collectable Costs	\$ 836,533	

Rate Calculation:
Collectable Costs / Utilization = State Long Distance Cost Per Minute

$$\frac{\$ 836,533}{11,185,509} = \$ 0.0748$$

In FY16, Dedicated Long Distance and Switched Long Distance were each billed in separate categories. For FY17, the Dedicated and Switched Long Distance are combined into one Long Distance category. For FY17, JR28 is in the Long Distance category rather than Switched Long Distance.



Plexar Access

Annual Estimated Utilization
 Number of Lines:
 79,632

Estimated Cost:
 Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR06	Plexar Lines - AT&T	\$ 1,309,023	\$ 650,000
JR07	Plexar VFG Trunks - AT&T	\$ 592,074	\$ 841,260
JR08	Plex Fed End User 9ZR - AT&T	\$ 701,366	\$ 600,000
JR09	Plex Fed End Eucl Credit - AT&T	\$ (609,186)	\$ (490,000)
JR10	Plexar Miscellaneous - AT&T	\$ 196,947	\$ 263,801
	Subtotal Expense and Equipment	\$ 2,190,225	\$ 1,865,061
	Direct Personnel	\$ 62,357	\$ 64,491
	Total Direct Allocation	\$ 2,252,582	\$ 1,929,552
	Indirect Costs Allocated	\$ 57,017	\$ 43,762
	Total Allocated Costs	\$ 2,309,599	\$ 1,973,314
	Total Collectable Costs	\$ 2,309,599	\$ 1,973,314
	Collectable Costs /Number of Lines = Monthly Access Line Cost		
	\$1,973,314	=	\$ 24.78
	79,632		
	Additional Plexar Charges:*		
	FEDERAL UNIVERSAL FUND*		\$ 0.11
	MISSOURI UNIVERSAL FUND*		\$ 0.04
	TOTAL		\$ 24.93

Plexar Pricing Policy:

- Lines added after the beginning of the fiscal year will be at cost plus an admin fee if cost is greater than CAP until the next annual CAP is developed.

- Customers pay all install charges.

- The Plex Fed End User Eucl Credit (JR09) is the cost of a Plex Fed End User (JR08) times the number of installed stations.

*Additional charges may increase or decrease throughout the Fiscal Year depending on FCC or PSC rulings.



Data Circuits

Annual Estimated Utilization

Actual Circuit Costs

Estimated Cost:

Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR24	Metropolitan Area Network Services	\$ 959,472	\$ -
JR27	Satellite Services	\$ 381,179	\$ 380,279
JR30	Frame Relay & Tariff Circuits	\$ 675,633	\$ 844,000
JR37	ISDN-PRI	\$ 1,026,035	\$ 978,000
JR39	Voice Grade Circuits	\$ 26,966	\$ 36,000
JR46	MPLS	\$ 6,000,000	\$ 3,173,700
JR53	Ethernet	\$ 421,438	\$ 1,800,000
	Subtotal Expense and Equipment:	\$ 9,490,721	\$ 7,211,979
	Direct Personnel	\$ 135,139	\$ 97,697
	Total Direct Allocation	\$ 9,625,861	\$ 7,309,676
	Indirect Costs Allocated	\$ 243,649	\$ 165,781
	Total Allocated Costs	\$ 9,869,509	\$ 7,475,457
	Total Collectable Costs	\$ 9,869,509	\$ 7,475,457

Rate Calculation:

(Total Collectable Costs - Direct Costs)/Direct Costs = Administrative Percentage

$$\frac{\$7,475,457 - \$7,211,979}{\$7,211,979} = 3.65\%$$



Voice Mail

Annual Estimated Utilization
 Number of mailboxes:
 22,925

Estimated Cost:
 Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR12	Voice Mail Circuits	\$ 279,963	\$ -
JT40	Voice Mail Maintenance	\$ 21,600	\$ -
JU08	PSTN Trunks	\$ -	\$ 14,446
	Subtotal Expense and Equipment	\$ 301,563	\$ 14,446
	Direct Personnel	\$ 38,507	\$ 40,887
	Total Direct Allocation	\$ 340,070	\$ 55,332
	Indirect Costs Allocated	\$ 8,608	\$ 1,255
	Total Allocated Costs	\$ 348,678	\$ 56,587
	Total Collectable Costs	\$ 348,678	\$ 56,587

Rate Calculation:

$$\begin{array}{rcl}
 \text{Collectable Costs / Number of Mailboxes} & = & \text{Rate per Mailbox} \\
 \frac{\$56,587}{22,925} & = & \$2.47
 \end{array}$$



Annual Estimated Utilization
Actual Costs

Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR13	Centrex Pass-Through - CenturyLink	\$ 344,885	\$ 344,885
JR14	Toll-Free Service Pass-Through	\$ 55,906	\$ 88,100
JR16	Plexar Pass-Through - AT&T	\$ 189,687	\$ 111,000
JR17	Business Line/Local Broadband	\$ 2,263,360	\$ 2,554,466
JR18	Toll Usage on Business & Plexar Invoices	\$ 1,546	\$ 2,065
JR19	Directory Assistance	\$ 3,049	\$ 1,011
JR29	Calling Card Usage	\$ 63,881	\$ 27,494
JR38	Tolls on Centrex Invoices	\$ 1,966	\$ 1,966
JR47	International Usage	\$ 86,772	\$ 10,000
JR49	Adobe Connect	\$ 42,000	\$ 22,285
JR50	Subscription Voice Mail	\$ 281	\$ 281
JR51	Conference Call Services	\$ 101,434	\$ 39,600
JU10	Client License	\$ 11,273	\$ 11,880
JU11	End-User Devices	\$ 28,650	\$ -
JU24	UC Loan Pass-through-Devices	\$ 552,958	\$ 408,000
JU08	UCCE Queue Trunking	\$ -	\$ 18,233
	Subtotal Expense and Equipment	\$ 3,154,766	\$ 3,641,266
	Direct Personnel	\$ 49,795	\$ 54,398
	Indirect Costs Allocated	\$ 81,113	\$ 83,816
	Total Allocated Costs	\$ 3,285,674	\$ 3,779,480
	Total Collectable Costs	\$ 3,285,674	\$ 3,779,480

Rate Calculation:

$$\begin{array}{r}
 \text{(Total Collectable Costs - Direct Costs)/Direct Costs = Administrative Percentage} \\
 \frac{\$3,779,480 - \$3,641,266}{\$3,641,266} = 3.80\%
 \end{array}$$



Toll-Free Service

Annual Estimated Utilization
 Number of minutes:
 71,555,211

Estimated Cost:
 Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR21	Toll-Free Termination Charges - AT&T	\$ 56,700	\$ -
JR45	Toll Free Usage	\$ 3,536,615	\$ 2,950,000
	Subtotal Expense and Equipment	\$ 3,593,315	\$ 2,950,000
	Direct Personnel	\$ 55,285	\$ 56,312
	Total Direct Allocation	\$ 3,648,600	\$ 3,006,312
	Indirect Costs Allocated	\$ 92,353	\$ 68,182
	Total Allocated Costs	\$ 3,740,953	\$ 3,074,494
	Total Collectable Costs	\$ 3,740,953	\$ 3,074,494

Rate Calculation:

$$\begin{array}{rcl}
 \text{Allocated Costs / Utilization} = \text{Per-Minute Cost} & & \\
 \frac{\$3,074,494}{71,555,211} & = & \$0.0430
 \end{array}$$



Internet

Annual Estimated Utilization
 Number of accounts:
 622,471

Estimated Cost:

Direct Allocation - Expense and Equipment	Budget Amount	Budget Amount
Item Description	FY16	FY17
J171 Equipment and Maintenance	\$ 317,713	\$ 317,713
J172 State Network Charges	\$ 181,952	\$ 185,910
J173 MoreNet Charges	\$ 121,355	\$ 116,925
Total Direct Expenses	\$ 621,020	\$ 620,548
Direct Personnel	\$ 270,373	\$ 94,746
Total Indirect Expenses	\$ 22,563	\$ 16,223
Total Allocated Costs	\$ 913,956	\$ 731,517
Total Collectable Costs	\$ 913,956	\$ 731,517

Rate Calculation:

Allocated Costs /Number of Accounts = Per-Account Cost

$$\frac{\$731,517}{622,471} = \$1.18$$



Network Core

Annual Estimated Utilization

Number of accounts:
2,814,734

Estimated Cost:

Direct Allocation - Expense and Equipment

Item	Description	Budget Amount	
		FY16	FY17
J901	Hardware and Software Maintenance	\$ 530,695	\$ 530,695
J911	Wiring and General Services	\$ 15,000	\$ 6,000
Subtotal Expense and Equipment:		\$ 545,695	\$ 536,695
Direct Personnel		\$ 3,326	\$ 90,566
Indirect Costs Allocated		\$ 13,897	\$ 14,226
Total Allocated Costs		\$ 562,917	\$ 641,487
Total Collectable Costs		\$ 562,917	\$ 641,487

Allocated Costs /Number of Accounts = Per-Account Cost = \$0.2279

Refer to rate schedule for billing information by agency.



Network Enhancement

Annual Estimated Utilization
 Number of accounts:
 246,600

Estimated Cost:
 Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JU25	Network Enhancements	\$ 1,098,148	\$ 1,098,148
Subtotal Expense and Equipment:		\$ 1,098,148	\$ 1,098,148
Direct Personnel		\$ 6,752	\$ -
Indirect Costs Allocated		\$ 27,967	\$ 24,906
Total Allocated Costs		\$ 1,132,867	\$ 1,123,054
Total Collectable Costs		\$ 1,132,867	\$ 1,123,054

Allocated Costs /Number of Accounts = Per-Account Cost = \$4.55

Refer to rate schedule for billing information by agency.

NOTE: Network Enhancements only apply to consolidated agencies



Wireless

Annual Estimated Utilization
Actual Costs

Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JR41	Wireless Services	\$ 4,750,000	\$ 5,526,300
	Subtotal Expense and Equipment:	\$ 4,750,000	\$ 5,526,300
	Direct Personnel	\$ 75,488	\$ 80,957
	Indirect Costs Allocated	\$ 122,142	\$ 127,171
	Total Allocated Costs	\$ 4,947,630	\$ 5,734,428
	Total Collectable Costs	\$ 4,947,630	\$ 5,734,428

Rate Calculation:

$$\begin{array}{r}
 \text{(Total Collectable Costs - Direct Costs)/Direct Costs = Administrative Percentage} \\
 \begin{array}{r}
 \$5,734,428 \quad -\$5,526,300 \\
 \hline
 \qquad \qquad \qquad \$5,526,300
 \end{array}
 \end{array}
 = 3.77\%$$



Unified Communications

Annual Estimated Utilization
246,600

Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount	Budget Amount
		FY16	FY17
JU04	Core UC Structure	\$ 166,000	\$ 282,300
JU05	Maintenance on Core Structure	\$ 139,748	\$ 1,294,095
JU08	PSTN Trunks	\$ 905,916	\$ 902,321
JU13	UC Loan Amt Core	\$ 1,578,937	\$ 1,572,161
Subtotal Expense and Equipment:		\$ 2,790,601	\$ 4,050,876
Direct Personnel		\$ 645,713	\$ 664,553
Indirect Costs Allocated		\$ 86,980	\$ 106,944
Total Allocated Costs		\$ 3,523,294	\$ 4,822,373
Total Collectable Costs		\$ 3,523,294	\$ 4,822,373

Rate Calculation:

Total Collectable Costs / Utilization = Per unit Rate

\$4,822,373	\$19.56
246,600	



Unified Communications Call Center

Annual Estimated Utilization
13,332

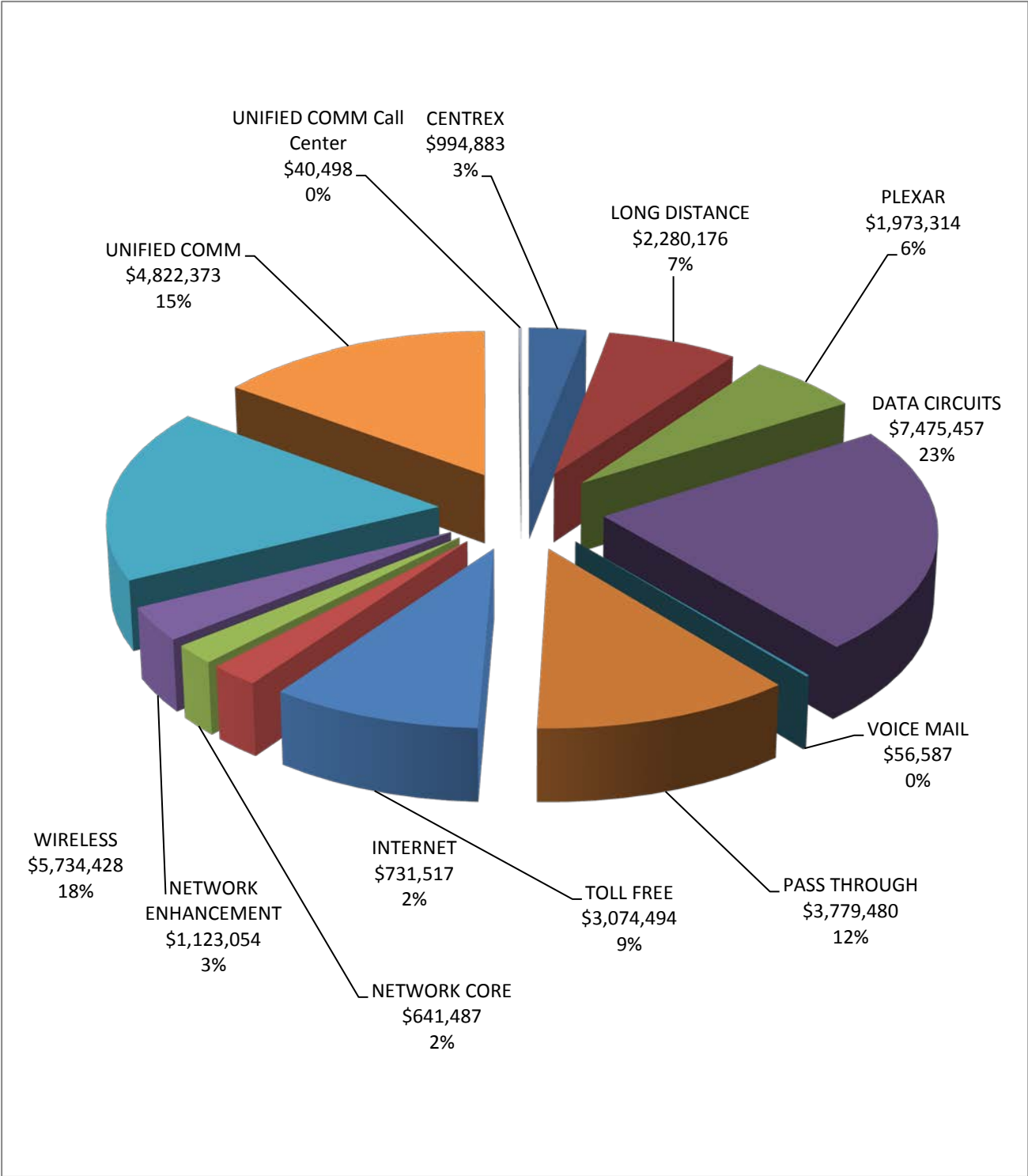
Estimated Cost:
Direct Allocation - Expense and Equipment

Item	Description	Budget Amount FY16	Budget Amount FY17
JU23	Call Center	\$ 189,143	\$ 39,600
Subtotal Expense and Equipment:		\$ 782,023	\$ 39,600
Direct Personnel		\$ -	\$ -
Total Direct Allocation		\$ 782,023	\$ 39,600
Indirect Costs Allocated		\$ 19,794	\$ 898
Total Allocated Costs		\$ 801,818	\$ 40,498
Total Collectable Costs		\$ 801,818	\$ 40,498

Rate Calculation:

$$\frac{(\text{Total Collectable Costs} - \text{Direct Costs})}{\text{Direct Costs}} = \text{Administrative Percentage}$$

<u>\$40,498</u>	=	\$	3.04
13,332			





Rate Summary

CAP Rates	
Centrex Access	\$16.54 per line + FCC costs
Long Distance	\$0.0815 per minute
Plexar Access	\$24.78 per line + FCC costs
Data Circuits	3.65% of actual cost
Voice Mail (standard mailbox)	\$2.47 per mailbox
Pass-Through Telephone Service	3.80% of actual cost
Toll-Free	\$0.0430 per minute
Internet	\$1.18 per account
Network Core	see rate schedule
Network Enhancement	see rate schedule
Wireless	3.77% of actual cost
Unified Communications	\$19.56 per line
Unified Communications Pass-Through	303.77% of actual cost
ISDN Calls	\$0.13 per minute
Directory Assistance	
Intrastate	\$1.99 per call
Interstate	\$1.99 per call
Toll	Actual Cost
Conference Calls*	
Progressive	\$10.00 per hour
Meet-Me	\$5.00 per hour

* NOTE: Charges may apply if a scheduled conference is canceled without adequate advance notice.



Rate History

CAP Rates	FY 2015	FY2016	FY17
Centrex Access	\$ 19.58	\$ 18.63	\$ 16.54
Long Distance	\$ 0.0683	\$ 0.0947	\$ 0.0815
Switched Long Distance	\$ 0.0746	\$ 0.0748	\$ -
Plexar Access	\$ 16.49	\$ 23.05	\$ 24.78
Data Circuits	3.56%	3.99%	3.65%
Voice Mail	\$ 5.13	\$ 8.63	\$ 2.47
Pass-Through Telephone Service	3.93%	4.15%	3.80%
Toll-Free	\$ 0.0567	\$ 0.0586	\$ 0.0430
Internet	\$ 1.45	\$ 1.57	\$ 1.18
Network Core	\$ 0.2083	\$ 0.2188	\$ 0.2279
Network Enhancement	\$ 6.0442	\$ 5.3753	\$ 4.5542
Wireless	3.99%	4.16%	3.77%
Unified Communications	\$ 12.68	\$ 16.69	\$ 19.56
Unified Communications Pass-Through	2.15%	2.53%	
Unified Communications-Call Center			\$ 3.04
ISDN Calls	\$ 0.13	\$ 0.13	\$ 0.13
Directory Assistance			
Intrastate	\$ 1.99	\$ 1.99	\$ 1.99
Interstate	\$ 1.99	\$ 1.99	\$ 1.99
Toll			
Conference Calls			
Progressive	\$ 10.00	\$ 10.00	\$ 10.00
Meet-Me	\$ 5.00	\$ 5.00	\$ 5.00

Rate Derivation Summary

COMMUNICATIONS CAP



	DIRECT		INDIRECT		TOTAL	UTIL or COST	RATE
	PS	E&E	PS	E&E			
CENTREX	\$60,442	\$912,378	\$16,950.44	\$5,112.80	\$994,883	60,144	\$16.54
LONG DISTANCE	\$104,497	\$2,125,112	\$38,848.77	\$11,718.04	\$2,280,176	27,970,279	\$0.0815
PLEXAR	\$64,491	\$1,865,061	\$33,620.56	\$10,141.04	\$1,973,314	79,632	\$24.78
DATA CIRCUITS	\$97,697	\$7,211,979	\$127,363.96	\$38,417.08	\$7,475,457	\$7,211,979	3.65%
VOICE MAIL	\$40,887	\$14,446	\$964.11	\$290.81	\$56,587	22,925	\$2.47
PASS THROUGH	\$54,398	\$3,641,266	\$64,393.33	\$19,423.11	\$3,779,480	\$3,641,266	3.80%
TOLL FREE	\$56,312	\$2,950,000	\$52,382.05	\$15,800.11	\$3,074,494	71,555,211	\$0.043
INTERNET	\$94,746	\$620,548	\$12,463.30	\$3,759.33	\$731,517	622,471	\$1.18
NETWORK CORE	\$90,566	\$536,695	\$10,929.40	\$3,296.66	\$641,487	2,814,734	\$0.2279
NETWORK ENHANCEMENT		\$1,098,148	\$19,134.16	\$5,771.48	\$1,123,054	246,600	\$4.55
WIRELESS	\$80,957	\$5,526,300	\$97,700.98	\$29,469.76	\$5,734,428	\$5,526,300	3.77%
UNIFIED COMM	\$664,553	\$4,050,876	\$82,161.75	\$24,782.63	\$4,822,373	246,600	\$19.56
UNIFIED COMM Call Center	\$0	\$39,600	\$689.99	\$208.12	\$40,498	13,332	\$3.04
TOTAL	\$1,409,546	\$30,592,410	\$557,603	\$168,191	\$32,727,748		

FY17 Network and Internet Rates	service factors							Network					Internet	
	Core	BC	FW	Net			Sub	0	Core	Core Multiplier	0.2279	4.55	1.18	
				VPN	Mgmt	WLAN								Lesser of FTE or AD
Agriculture	1	1	1	1	1	1	6	1	362	2,174	496	168	765	426
Attorney General's Office	1	0	0	0	0	0	1	0	352	352	80	271	1,234	414
Conservation	1	0	0	0	0	0	1	0	1625	1,625	370	-	-	1,910
Corrections	1	1	1	1	1	1	6	1	10891	65,346	14,893	1,102	5,019	12,799
DED - Public Service Commission	1	0	0	0	0	0	1	0	190	190	43	-	-	223
DESE	1	1	1	1	1	1	6	1	1305	7,830	1,784	577	2,628	1,534
DESE - Voc Rehab & Disability	1	1	1	1	1	1	6	1	0	-	0	808	3,680	-
Div of Energy	1	1	1	1	1	1	6	1	32	191	44	39	178	37
DPS - Adjutant General (MONG)	1	1	1	1	1	1	6	1	368	2,210	504	-	-	433
DPS - Capitol Police	1	1	1	1	1	1	6	1	13	78	18	11	50	15
DPS - Director's Office	1	1	1	1	1	1	6	1	107	642	146	76	346	126
DPS - Fire Safety	1	1	1	1	1	1	6	1	68	408	93	26	118	80
DPS - Liquor Control	1	1	1	1	1	1	6	1	0	-	0	21	96	-
DPS - SEMA	1	1	1	1	1	1	6	1	103	616	140	184	838	121
Economic Development	1	1	1	1	1	1	6	1	564	3,385	771	468	2,131	663
Ethics Commission	1	0	1	0	1	1	4	0	20	82	19	-	-	24
Gaming Commission	1	0	0	0	0	0	1	0	109	109	25	-	-	128
Governor's Office	1	1	1	1	1	1	6	0	2	12	3	-	-	2
Health and Senior Services	1	1	1	1	1	1	6	1	1756	10,537	2,401	1,899	8,648	2,064
Higher Education	1	1	1	1	1	1	6	1	56	339	77	66	301	66
House	1	0	0	0	0	0	1	0	433	433	99	-	-	509
Insurance	1	1	1	1	1	1	6	1	197	1,185	270	188	856	232
Insurance - Credit Union	1	1	1	1	1	1	6	1	6	36	8	8	36	7
Insurance - Finance	1	1	1	1	1	1	6	1	111	666	152	142	647	130
Insurance - Professional Reg	1	1	1	1	1	1	6	1	234	1,406	321	181	824	275
Labor & Industrial Relations	1	1	1	1	1	1	6	1	749	4,493	1,024	659	3,001	880
Legislative Research	1	0	0	0	0	0	1	0	25	25	6	-	-	29
Lottery Commission	1	0	0	0	0	0	1	0	153	153	35	-	-	179
Lt. Governor's Office	1	1	1	1	1	1	6	0	7	42	10	-	-	8
Mental Health	1	1	1	1	1	1	6	1	7448	44,687	10,184	3,915	17,830	8,753
Missouri State Highway Patrol	1	0	0	0	0	0	1	0	2616	2,616	596	1	5	3,074
MO VET Cmtry - BLOOMFIELD	1	1	1	1	1	1	6	1	3	18	4	-	-	4
MO VET Cmtry - FT LEONARD WOOD	1	1	1	1	1	1	6	1	4	24	5	-	-	5
MO VET Cmtry - HIGGINSVILLE	1	1	1	1	1	1	6	1	4	24	5	-	-	5
MO VET Cmtry - JACKSONVILLE	1	1	1	1	1	1	6	1	3	18	4	-	-	4
MO VET Cmtry - SPRINGFIELD	1	1	1	1	1	1	6	1	4	24	5	-	-	5
MO VET COM	1	1	1	1	1	1	6	1	59	354	81	52	237	69
MO VET HOME - CAMERON	1	1	1	1	1	1	6	1	136	816	186	72	328	160
MO VET HOME - CAPE GIRARDEAU	1	1	1	1	1	1	6	1	83	498	113	-	-	98
MO VET HOME - MEXICO	1	1	1	1	1	1	6	1	99	594	135	-	-	116
MO VET HOME - MT VERNON	1	1	1	1	1	1	6	1	122	732	167	-	-	143
MO VET HOME - ST JAMES	1	1	1	1	1	1	6	1	84	504	115	-	-	99
MO VET HOME - ST LOUIS	1	1	1	1	1	1	6	1	222	1,332	304	-	-	261
MO VET HOME - WARRENSBURG	1	1	1	1	1	1	6	1	128	768	175	84	383	150
Natural Resources	1	1	1	1	1	1	6	1	1436	8,614	1,963	1,187	5,406	1,687
OA	1	1	1	1	1	1	6	1	812	4,872	1,110	532	2,423	954
OA-ITSD	1	1	1	1	1	1	6	1	938	5,630	1,283	1,392	6,339	1,103
Public Defenders	1	0	0	0	0	0	1	0	588	588	134	-	-	690
Revenue	1	1	1	1	1	1	6	1	1090	6,537	1,490	764	3,479	1,280
Secretary of State	1	1	0	0	0	0	2	0	225	449	102	-	-	264
Senate	1	0	0	0	0	0	1	0	199	199	45	-	-	233
Social Services	1	1	1	1	1	1	6	1	6852	41,113	9,370	5,556	25,303	8,053
State Auditor's Office	1	0	1	0	0	0	2	0	105	210	48	-	-	124
State Courts Administrator	1	0	0	0	0	0	1	0	3173	3,173	723	101	460	3,729
State Tax Commission	1	0	0	0	0	0	1	0	38	38	9	-	-	45
State Treasurer's Office	1	0	0	0	0	0	1	0	45	45	10	-	-	53
Transportation	1	0	0	0	0	0	1	0	5519	5,519	1,258	-	-	6,486
TOTAL	59	41	42	40	41	41	264	0	51,873	234,561	53,457	20,550	93,588	60,960