

COMMITTEE ON LEGISLATIVE RESEARCH
OVERSIGHT DIVISION

FISCAL NOTE

L.R. No.: 5394-01
Bill No.: SB 1115
Subject: Telecommunications; Utilities; Science and Technology
Type: Original
Date: April 3, 2006

FISCAL SUMMARY

ESTIMATED NET EFFECT ON GENERAL REVENUE FUND			
FUND AFFECTED	FY 2007	FY 2008	FY 2009
General Revenue	Unknown to (Unknown)	Unknown to (Unknown)	Unknown to (Unknown)
Total Estimated Net Effect on General Revenue Fund*	Unknown to (Unknown)	Unknown to (Unknown)	Unknown to (Unknown)

* Fiscal impact could be split between various state funds

ESTIMATED NET EFFECT ON OTHER STATE FUNDS			
FUND AFFECTED	FY 2007	FY 2008	FY 2009
Total Estimated Net Effect on <u>Other</u> State Funds	\$0	\$0	\$0

Numbers within parentheses: () indicate costs or losses.
This fiscal note contains 13 pages.

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2007	FY 2008	FY 2009
Total Estimated Net Effect on <u>All</u> Federal Funds	\$0	\$0	\$0

ESTIMATED NET EFFECT ON LOCAL FUNDS			
FUND AFFECTED	FY 2007	FY 2008	FY 2009
Local Government	\$0	\$0	\$0

FISCAL ANALYSIS

ASSUMPTION

Officials from the **State Tax Commission, Missouri Gaming Commission, State Emergency Management Agency, Department of Revenue, Missouri Senate, Missouri House of Representatives, Missouri Ethics Commission, State Auditor's Office, Department of Public Safety - Director's Office** and the **Missouri Consolidated Health Care Plan** each assume the proposal would not fiscally impact their respective agencies.

Officials from the **Office of the Lieutenant Governor** assumes that expenses associated with this proposal can be assumed by the office with the exception of a large capital expenditure.

Officials from the **Office of Administration - Budget and Planning** defer to the Information Technology Services Division for department/statewide impact.

Officials from the **Department of Public Safety - Capitol Police** assume this would seem to be costly for their agency. More information would be needed to help determine the extent of the impact on their agency.

ASSUMPTION (continued)

Officials from the **Department of Public Safety - Missouri Veterans' Commission (VET)** state the impact would be unknown to General Revenue, Home Fund and the Veterans Commission Capital Improvement Trust Fund. All of these funds were included in the IT Consolidation. VET assumes the Office of Administration - Information Technology Services Division and the Department of Transportation would come to an agreement that would determine the fiscal impact of the reimbursement to MoDOT for operation and maintenance of the fiber optic network.

Officials from the **Department of Insurance (INS)** assume an unknown fiscal impact from the proposal. INS relies upon the Office of Administration for all telecommunication services, both voice and data, either as a direct provider or a writer of statewide contracts. INS will continue to look to OA for such services and expects 1) that costs for such services described in this legislation will be equitably passed to INS via the long-standing Cost Allocation Plan and 2) any start-up costs required by this legislation would be spread over time to minimize impact of the new service. Such start up costs might include the cost of converting INS's two dedicated circuits and the cost of new equipment.

Officials from the **Office of the Adjutant General (OTAG)** state they are currently operating under the 100 percent federally funded network backbone. OTAG assumes that, primarily due to the Department of Defense security considerations, that they will remain under the federal backbone.

Officials from the **Office of the State Courts Administrator (CTS)** assume there would be a significant impact on the budget of the judiciary. CTS states while they are unable to quantify that estimate at this time, the cost would be in excess of \$100,000.

Officials from the **Office of the Secretary of State - Information Technology Division** assume that costs of this proposal cannot be determined.

Officials from the **Office of Secretary of State - Administrative Rules (SOS)** state many bills considered by the General Assembly include provisions allowing or requiring agencies to submit rules and regulations to implement the act. The SOS is provided with core funding to handle a certain amount of normal activity resulting from each year's legislative session. The fiscal impact for this fiscal note to the SOS for Administrative Rules is less than \$1,500. The SOS recognizes that this is a small amount and does not expect that additional funding would be required to meet these costs. However, the SOS also recognizes that many such bills may be passed by the General Assembly in a given year and that collectively the costs may be in excess

ASSUMPTION (continued)

of what the office can sustain with the core budget. Therefore, the SOS reserves the right to request funding for the cost of supporting administrative rules requirements should the need arise based on a review of the finally approved bills signed by the governor.

Officials from the **Department of Higher Education** state the Missouri Research and Education Network consortium (MOREnet) is a state funded, state-wide network providing, among other services, Internet connectivity to public schools, libraries, and higher education institutions. The cost of transferring all of these entities to the Missouri Department of Transportation (MoDOT) fiber optic network is unknown. In addition, the cost of utilizing this system is unknown. Further, it is unknown as to whether the MoDOT fiber network can provide the same level and range of services that MOREnet currently does.

Officials from the **Department of Conservation** state the proposal would impact their funds. It is hoped that utilization of an existing state resource would be cheaper than services provided by commercial vendors; however, the extent is unknown.

Officials from the **Office of the Attorney General** state costs would depend upon the implementation plan developed by the Office of Administration. Costs for migration of communication services are unknown, but potentially significant (could exceed \$100,000).

Officials from the **Department of Public Safety - Missouri Highway Patrol (MHP)** state their Information Systems Division anticipates that servers and routers will have to be located in each of the nine troops and one at general headquarters in Jefferson City. Because the Highway Patrol is a public safety organization, it is necessary to implement an infrastructure where every troop can function on its own in case one of the other troop locations became inoperable.

This response is based upon the understanding of the intent of the proposed legislation, the knowledge of the existing MODOT fiber network, connection estimates and cost of voice over IP equipment.

It is estimated that the number of telephones that would have to be replaced by the fiber optic network within the organization to be approximately 1,920. It would also be necessary to connect all 9 Troop locations, 4 satellite laboratories, 80 zone locations (outside of troop locations) and 24 weight stations to the fiber network, which is a total of 117 locations.

An average cost of \$6,800 per location to connect to the fiber network is projected.

An average cost of \$250 per voice over Internet device (telephone handset) is projected.

ASSUMPTION (continued)

ONE TIME EXPENDITURES

Number locations 117 x \$6,800 per connection	\$795,600
Number of telephone hand sets required 1,920 x \$250	\$480,000
9 troop standalone power switches at \$4,600	\$ 41,400
Installation (infrastructure and handsets) \$180 per hour x 500hrs	<u>\$ 90,000</u>
 TOTAL MHP ONE TIME COSTS	 \$1,407,000

RECURRING COSTS

Fiber usage at \$20.00 per month per location (\$20 x 117 x 12 months) (charged by OA)	\$ 28,080
Promulgation of rules \$20 per month per location (\$20 x 117 x 12 months)	<u>\$ 28,080</u>
 TOTAL MHP ANNUAL RECURRING COSTS	 \$ 56,160

MHP assumes a cost to the Highway Fund of \$1,507,055 in FY 2007, \$59,580 in FY 2008 and \$61,368 in FY 2009.

Officials from the **Office of the State Treasurer (STO)** estimate a one time cost of \$82,200 to implement this bill. This cost would be split between the Treasurer's Information Fund (\$71,700) and the Abandoned Fund (\$10,500). The STO estimates the cost to;

- upgrade telephones to be \$21,000;
- upgrade network to be \$50,500;
- Internet line charges to be \$7,200;
- Network Circuit Line Charges to be \$3,500.

Officials from the **Missouri Lottery Commission (LOT)** assume the proposal would have a significant impact on the Lottery's financial and operations position.

Since inception in 1986, the Lottery has built a network of approximately 4,250 retail locations to sell Lottery tickets and games. The retailers sell, validate and report Lottery tickets and games by the utilization of on-line terminals, which are provided by the Lottery. The terminals are currently connected to the computer gaming system by one of two network solutions - a satellite network and an analog circuit network.

The analog circuit network consists of approximately 2,800 terminals currently. This network is subject to a five-year contract with Southwestern Bell Corporation ("SBC") that is set to expire on May 31, 2007. The average annual cost per terminal is approximately \$700, with an initial

ASSUMPTION (continued)

installation fee of approximately \$400.

The satellite network currently serves approximately 1,450 terminals and is provided by GTECH as part of the current contract for the computer gaming system. The GTECH contract period is through June 30, 2012. The average annual cost per terminal is approximately \$1,100, with an initial installation fee of \$500.

Data from the SBC network is transmitted to the gaming system via 21 T1 lines from St. Louis, Kansas City and Springfield areas. The current annual cost for these lines is approximately \$205,500.

As the contract with SBC noted above is set to expire in early 2007 and due to increased bandwidth requirements, the Lottery will need to convert those retail locations to a different network solution. It is anticipated that these locations will probably be converted to the satellite network, however, the Lottery will submit an RFP and evaluate other options and pricing later this year. Based on the current installation fee of a retail location on the satellite network of \$500, the Lottery estimates the initial investment is this conversion/upgrade to be at least \$1.4 million.

Internally, the Lottery utilizes three T1s, one to each regional office, and approximately 350 voice lines

This briefly summarizes the status of the Lottery's telecommunication system and networks - the discussion of the potential financial impact of the proposed legislation follows.

Retailer Locations - fiber optic cable would need to be extended to each location and would require inside wiring changes on most, if not all, locations. This would affect each of the current locations and any future retail locations added. By 2009, the number of retail locations is projected to be approximately 5,100 and these locations are spread throughout the entire State. Since the LOT has had no experience with the fiber optic network, nor have we solicited any pricing on such a network, information obtained from Information Technology Services of the Office of Administration was consulted for cost estimates. A rough estimate for the installation alone for 5,100 retail locations would be at least \$76.5 million. This is \$15,000 average cost per location. This cost could obviously be higher depending on the actual mileage to extend and install the fiber optic cables. The existing T1s would need to be migrated to the fiber optic network as well and additional capacity would need to be acquired as the volume from the current satellite network would now be included. The estimated initial installation/conversion costs for this is \$200,000.

ASSUMPTION (continued)

Recurring monthly fees are estimated at \$750 per location - for a total estimated monthly cost of \$3.825 million, or \$40.9 million annually

Internal and Regional Office Communications - initial conversion costs of existing voice lines, as well as T1s to each regional office, is estimated at approximately \$360,000.

The monthly recurring fees are estimated at approximately \$50,000, or \$600,000 annually, for the voice and regional office networks.

In summary, the LOT estimates the total cost of the proposal to be:

Total LOT Initial Installation/Conversion Cost Estimate	\$76,860,000
Annual LOT Recurring Costs	\$41,500,000

This does not address the need and costs for a redundant telecommunication network, which should be required to insure minimum interruption of sales activity and negative impact of integrity of the Lottery.

In addition, the contract for the satellite network remains in effect until June 30, 2012 with GTECH. If the terms of the contract are enforced and there are no adequate clauses to allow for the termination of this section, monthly payments to GTECH would be required of approximately \$134,000, or \$1.608 million annually.

Officials from the **Missouri Department of Transportation (MoDOT)** state there are approximately 400 MoDOT locations evenly distributed around the state, with an average of 50 miles to the nearest fiber network aggregation point. Construction costs of fiber routes would cost at least \$1,000 per route mile. Therefore the one-time cost for the fiber construction would be approximately \$20,000,000 (400 locations X 50 miles X \$1,000 per mile). MoDOT assumes that this phase of implementation would take place in FY07.

An upgrade of the equipment at each of the approximately 400 locations would be required at a cost of \$5,000 each. Therefore the one-time cost for the network equipment upgrade would be approximately \$2,000,000 (400 locations X \$5,000). MoDOT assumes that this phase of implementation would also take place in FY07. There would also be an increase in the network equipment maintenance at approximately \$400,000. This network equipment maintenance cost would occur annually.

ASSUMPTION (continued)

The legislation would increase MoDOT's fiber miles from 1,700 to 20,000. This increase would require an increase in the number hours of fiber maintenance to be completed by contract employees. MoDOT estimates that 84 contract employees would work a total of 2,000 hours each annually. The rate of pay for the contract employees is \$110 per hour, therefore the fiber maintenance costs would be approximately \$18,480,000 per year (84 contract employees X 2,000 hours X \$110 per hour). This fiber maintenance cost would occur annually.

In summary, MoDOT assumed a cost of \$40.9 million to the Road Fund in FY 2007, and \$18.9 million to the Road Fund each year thereafter.

Officials from **Linn State Technical College** state this proposal would cost \$92,000 in the first year to their school (including upgrading network infrastructure, bandwidth costs and costs to run fiber optic cabling to U.S. Highway 50). Linn State assumed an ongoing cost of \$49,000 as well.

Officials from **Missouri State University (MSU)** state they utilize MOREnet for Internet access and videoconferencing. Currently MSU has a contract with Sho-Me Technologies that runs through October, 2009, for a Metropolitan Ethernet Network (MEN) between Springfield, Mountain Grove, West Plains and Lebanon. At the expiration of this contact, MSU could transition to the MoDOT fiber network if it is available in our locations.

Officials from the **University of Missouri / MOREnet** state that Missouri currently funds a state-wide network managed by the Missouri Research and Education Network consortium (MOREnet), a department of the University of Missouri. This network serves 513 public and five private K-12 schools, 129 public libraries, 26 public and 40 private higher education institutions and ten other non-profit entities.

K-12 schools, public libraries, independent higher education institutions and other affiliated MOREnet members being served by the current state-wide network are not included in the scope of "public governmental body" as defined in SB 1115. The fiscal impact on these entities is dependent upon items 1 and 2 below, and is unclear at this time.

For the purpose of the following fiscal impacts, the University of Missouri and MOREnet presume that "all telecommunications services" include:

- Use of the Missouri Department of Transportation (MODoT) fiber-optic network;
- Traditional tail circuits connecting each specific site to the MODoT network;
- Routers and related maintenance;
- Videoconferencing infrastructure and support;
- Commodity Internet Access

ASSUMPTION (continued)

1. For the 26 public higher education institutions currently included in the aforementioned state-wide network, equipment, connectivity, network management and video costs would be incurred when these entities are transferred to the MODoT fiber optic network.

Fiscal Impact FY07 and FY08: Minimal, as implementation starts in FY09.

Fiscal Impact FY09: \$4,000,000.

If the intent of SB 1115 is to provide fiber-optic connectivity from the MODoT network to each of the 26 public higher education institutions, that connectivity does not currently exist, and the FY09 cost to the state would increase substantially.

2. The University of Missouri receives a separate high-performance interconnection between its four campuses from the current state-wide network which provides secure data transport for academic research, accounting and financial systems, student systems and administrative functions. A fiber-optic connection to each campus does not currently exist. In addition, there is insufficient information about the MODoT fiber-optic network infrastructure upon which to base a reasonable fiscal impact of migrating the University voice systems to a VoIP platform.

Fiscal Impact FY07 and FY08: Minimal, as implementation starts in FY09.

Fiscal Impact FY09: Impossible to determine based on information provided in SB 1115.

Officials from the **Department of Corrections (DOC)** state because the bill requires the Office of Administration to promulgate the specific rules for the implementation and cost of this bill, DOC can not determine what the fiscal impact, if any, would be if this bill were to pass. DOC states if the proposed legislation requires fiber all the way to the site, DOC estimates that 3,353 miles of fiber would have to be laid at an estimated cost of \$2,000 per mile totaling \$6,706,000 one-time cost. Annual maintenance for that fiber is estimated at 20% of the one-time cost or \$1,341,200. There would be additional cost for hardware at the sites which is not included. This does not take into consideration any sharing of fiber with other agencies that may be possible.

Officials from the **Department of Labor and Industrial Relations, Department of Health and Senior Services, Department of Mental Health, Department of Public Safety - Divisions of Fire Safety, Director's Office and Alcohol and Tobacco Control, Department of Natural Resources** and the **Department of Economic Development** each assume that OA-ITSD would provide a statewide response regarding the fiscal impact of the proposed legislation.

ASSUMPTION (continued)

Officials from the **Office of Administration - Information Technology Services Division (OA-ITSD)** state that assuming they would be responsible for the core infrastructure to allow the individual agencies to connect all voice and data requirements to the MoDOT fiber from 10 entry points (Jefferson City, Rolla, Columbia, St. Louis, Springfield, Kansas City, Cape Girardeau, St. Joseph, Hannibal, Joplin), additional cost from MoDOT spend at a minimum could be \$5 million dollars up front with an annual amount of \$5,000 for hardware only. This would not include personnel or additional entry points which could increase cost to the agencies.

Assuming that since the bill requires all telecommunications to be IP based, the state would move all telephony equipment to IPT. IBM Global Services completed a study that gave an estimated \$32.3 million upfront for IPT. This was focused on 60,000 centrex based telephone lines and approximately 1/3 of the business lines for the state agencies. This cost is estimated at \$1 – 2 million dollars in addition for the equipment only for the remaining business lines. Therefore, the IPT equipment could be \$34.3 million upfront and \$3 - \$4 annual for maintenance.

This also did not include the building infrastructure and switching equipment that would be required. An individual study of each building will have to be completed to estimate this cost.

Additional costs includes the telephone company facilities that will be required to allow for the public to make a call to the state agencies. An assumption was made that based on the language of the bill, these options would be prohibited.

All of the assumptions are based on agencies including the expenses in their responses for all their street addresses to be connected to the one of the 10 core sites.

ASSUMPTION (continued)

OA-ITSD assumed the following fiscal impact for various state agencies.

State Agency	Estimated One-time Costs	Estimated Recurring Costs
Department of Public Safety - Director's Office, Capitol Police, Alcohol and Tobacco Control	\$139,000	\$20,850
Department for Mental Health	\$4,719,484	\$128,200
Department of Social Services	\$7,378,850	\$179,902
Department of Labor and Industrial Relations	\$1,959,160	\$111,510
Department of Economic Development	\$2,168,880	\$1,341,200
Department of Corrections	\$6,706,000	Unknown
Department of Revenue	\$285,236	\$0
Department of Elementary and Secondary Education	\$1,123,650	\$124,850
Department of Health and Senior Services	\$1,661,234	\$218,400
Department of Natural Resources	\$712,870	\$106,931
OA - ITSD	<u>\$39,300,000</u>	<u>\$4,500,000</u>
TOTAL	<u>\$66,154,364</u>	<u>\$6,731,843 to Unknown</u>

Oversight assumes that only those state agencies that have direct access to the fiber optic network currently owned by the Department of Transportation (DOT) would be affected in FY 07 and FY08. Oversight was not provided any savings that may be realized from using the DOT fiber optic network. Oversight assumes there would be some savings from the expenses of leased and/or contracted lines of communication. Oversight assumes that those agencies having direct access may incur some costs for hardware and software to be able to use the fiber optic network.

<u>FISCAL IMPACT - State Government</u>	FY 2007 (10 Mo.)	FY 2008	FY 2009
GENERAL REVENUE FUND			
Savings - to implement fiber optic networks	Unknown	Unknown	Unknown
<u>Costs</u> - to implement fiber optic networks on current network	<u>(Unknown)</u>	<u>(Unknown)</u>	<u>(Unknown)</u>
ESTIMATED NET EFFECT TO THE GENERAL REVENUE FUND*	Unknown to <u>(Unknown)</u>	Unknown to <u>(Unknown)</u>	Unknown to <u>(Unknown)</u>

* Fiscal impact could be split between various state funds

<u>FISCAL IMPACT - Local Government</u>	FY 2007 (10 Mo.)	FY 2008	FY 2009
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

FISCAL IMPACT - Small Business

No direct fiscal impact to small businesses would be expected as a result of this proposal.

DESCRIPTION

The proposal requires every public governmental body to begin utilizing the fiber optic network currently owned by the department of transportation for all telecommunications, video and data services by January 1, 2009. The act directs the office of administration to promulgate rules governing the process by which all public governmental bodies make this migration.

The proposal directs the Office of Administration, after January 1, 2010, to promulgate rules governing the process by which all public governmental bodies begin integrating their data, voice and video services into a single, core convergence network. The rules will be made in three phases, a summary of each phase is laid out in the act. The act directs every public governmental body to submit a proposal to the office of administration no later than June 1, 2009, detailing their plans to meet the convergence implementation.

The proposal directs the office of administration to submit a report to the governor and general assembly every two years beginning January 1, 2010, detailing the integration of all information systems and the progress towards the convergence implementation.

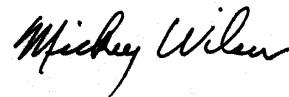
This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

SOURCES OF INFORMATION

Office of Administration
State Tax Commission
Department of Public Safety
Department of Revenue
Missouri Senate
Missouri House of Representatives
Missouri Ethics Commission
State Auditor
Missouri Consolidated Health Care Plan

SOURCES OF INFORMATION (continued)

Office of the Lieutenant Governor
Department of Insurance
Department of Corrections
Office of the State Courts Administrator
Office of the Secretary of State
Coordinating Board for Higher Education
Department of Conservation
Office of the Attorney General
Office of the State Treasurer
Missouri Lottery Commission
Department of Transportation
Linn State Technical College
Missouri State University
University of Missouri / MOREnet
Department of Labor and Industrial Relations
Department of Health and Senior Services
Department of Mental Health
Department of Natural Resources
Department of Economic Development



Mickey Wilson, CPA
Director
April 3, 2006