Montana State Legislature
Final Report of the Select Committee on Efficiency in Government
Comments of the Montana Telecommunications Association
October 17, 2012

Introduction:

The Montana Telecommunications Association (MTA) is pleased to comment on
the draft Final Report (Report) of the Select Committee on Efficiency in
Government (Committee). MTA's members provide advanced last-mile, middle-
mile and enterprise broadband services to nearly 90 percent of Montana's
business, government and residential consumers. Collectively, Montana's rural
telecom providers employ over 1,000 Montana citizens with superior salary and
benefit packages. They invest over $130 million annually in state-of-the art
telecommunications infrastructure, which includes, among other things, over
20,000 miles of fiber optic facilities reaching nearly every corner of the state.

Montana's telecom industry—not just those companies represented by MTA—is
robust and competitive. It includes wireline and wireless telecom providers,
cable companies and satellite providers, among others, all delivering a variety of
broadband options, from 3G wireless to Gigabit Ethernet (GigE) to individuals
and anchor institutions alike. And a variety of backbone network providers link
Montana's telecom infrastructure to the rest of the world through Tier 1
connectivity at major peering points in North America.

As the Report indicates, the Committee established an Information Technology
(IT) subcommittee to explore "how the state could more efficiently and effectively
provide IT services…" (p.17) There is no doubt that utilization of broadband
technologies and services is integral to optimizing government efficiency and
delivering services in a cost effective manner whether to government entities or
to public stakeholders.

MTA points out however that the Committee lacks sufficient information by which
to make any reasoned decision regarding an appropriate information technology
policy for the State of Montana. For example, the Committee has been given
virtually no information, nor does the Report reflect any consideration of existing
market alternatives to the state Information Technology Services Division's
(ITSD) "build-it-ourselves" policy. In several meetings of the Committee during
the Interim Session, the ITSD offered a variety of unsubstantiated assertions
regarding the IT environment in Montana, but failed to provide the kind of
analysis that would enable the Committee to substantiate ITSD's assertions or to
make informed decisions regarding how our state government can maximize
efficiencies through the rational use of information technology. Instead, as the
Report indicates, "The state does not have a long-term strategy to provide a
stable, predictable and affordable statewide network." (p.26)

<u>Comments:</u>

Issue 2: Cloudy in Montana

The Report finds that "Confusion exists regarding the difference between the services of SMDC and private cloud corporations. There needs to be a clear understanding about how the SMDC and procured cloud services can work together to provide optimal storage and retrieval services to state government." (p. 20) Among "Actions or Recommendations," the Report states that "Montana should consider the deployment of a coordinated, hybrid cloud hosting environment across agency IT resources, vendor provided public cloud and our own state private cloud…After considering recommendations of SITSD, the subcommittee asked for further clarification regarding the jurisdictional issue related to cloud contracting. Because of the nature of the cloud, legal venues and process are not clearly defined." (p. 20)

MTA generally concurs with the Report's recommendations that ITSD needs to provide the Legislature with detailed information regarding its cloud computing plans including detailed cost/benefit analysis of public vs. private cloud services. Such analysis has not been undertaken; the Committee, therefore lacks a "clear understanding" of what ITSD's plans are, let alone an appropriate policy for the State of Montana.

Issue 4: Transition to SMDC

MTA realizes the State of Montana has committed significant taxpayer resources to the construction, operation and maintenance of redundant data centers which remain substantially underutilized. Data storage today is practically a commodity. Storage capacity continues to increase dramatically while cost decreases. There are plenty of reliable, secure private sector alternatives readily available in the marketplace.

The Report recommends that "staff provide a cost comparison of agency in-house data center service to SMDC costs" and that such comparison "could be utilized in the budgeting process to assure agencies are funded appropriately to transition to SMDC."   (p. 24) MTA recommends that LFD expand its analysis of SMDC's costs to include its current and long-run capital and operating costs, and compare such costs to alternative data storage solutions—not just agency status quo comparisons. MTA suspects that with current market trends, the most efficient data storage solutions for the State of Montana may not lie with SMDC.

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Issue 7: Network Plans

ITSD, without providing any evidence, asserts that it needs more capacity or that it needs to build its own, separate, redundant network facilities including the "utilization of the northern tier network, improvements to the middle mile and local loop connections" with a "combination of a reduction in contract services and rate recovery." (p. 26)

Details of this northern tier/middle-mile "improvement"/rate recovery strategy have not been presented to the Committee. What "improvements need to be funded?" What is the business case for funding such "improvements?" What are the benefits, if any, costs, and opportunity costs for making such "improvements?"

The Report states that "Network capacity must increase to meet Montana's demand for information technology." (*Id.*) This may be true. Certainly demand for bandwidth continues to grow in all sectors of the economy. However, no evidence is provided to substantiate this claim. How much network capacity does the state currently use? How much does it need? Where are the gaps, if any? What are future/projected demands for bandwidth? What alternative solutions exist for optimizing utilization, demand and growth in the most cost effective and efficient manner? We don't know. And yet, without a scintilla of evidence, the Report finds that "without expansion of the network 'highway' there is not enough available capacity to meet the demand, traffic grinds to a halt, cars stall out, and there is gridlock." (*Id.*)

The Report further lists four "major cost drivers to the state network" as described by ITSD in a brief to the Committee. The first cost driver is the "cost of the State's Internet connection" which is described as "$12.75Mega Bytes (MB)/month for a 200Mbps connection in Helena and to VisionNet $18 MB/month for a 100Mbps connection in Billings." (*Id.*) This sentence makes no sense. Comparing "Mega Byte" prices to "megabit" (Mbps) connections is both misleading and confusing. MTA recommends that the final Report clarify what is intended by this sentence. We suspect the intent is to report that the state currently pays $12.75/Mbps/month for a 200 Mbps connection and $18/Mbps/month for a 100 Mbps connection.

The next problem with the paragraph describing the State's Internet connection cost driver occurs with the assertion by ITSD that "just looking at increasing the internet connection for the State network to 1Gbps even at today's lowest rates would cost an additional $633,600 per biennium." (pp. 26-27) There's no explanation for how ITSD derives this figure, so the Committee has no way to verify this assertion. Moreover, the cost of bandwidth per megabit is constantly decreasing. Vendor prices decrease even further as more bandwidth is ordered over a longer period of time. This is partly illustrated in the previous paragraph,

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where it presumably costs (notwithstanding awkward construction of the sentence) $12.75/Mbps/mo for a 200 Mbps connection and nearly one-third more for a 100 Mbps connection. A 1Gbps connection, therefore, can be presumed to be less expensive per megabit and even less depending on the duration of the contract. There simply is no way to determine how ITSD derives its $633,600 additional cost, and whether it has taken into account market factors such as those described herein. (That said, it's reasonable to assume that a 1 Gbps connection will be more expensive than 100 Mbps.)

The second cost driver is described as the "core" network which comprises two 1Gbps connections and "two remote office aggregation sites…of 1.5Gbps (gigabytes per second) capacity each." Again, the draft confuses bytes and bits.

The third cost driver is referred to as the "middle mile" with different pricing schemes according to different contracts the state has entered into. The fourth cost driver is the "local loop" which connects the end user to the network carrier location, again with different pricing schemes. The implication is that different prices for different terms and conditions is somehow undesirable. As the Federal Communications Commission (FCC) notes (*infra*), purchasing services from a range of service providers offers broader geographic reach, greater variety of cost comparisons, coordinated services, and often lower prices.

The Report concludes discussion of this issue with a request for an "update on this issue…prior to the 63rd legislative session." (p. 27) MTA is unaware of any update in this regard. It is difficult to foresee how the Committee can approve any related actions or recommendations without having provided either the Committee or the public an opportunity to analyze any update.

Further, the final sentence in this issue discussion is both nebulous in its lack of clarity and disturbing in its oblique reference to a taxpayer-funded network solution. The statement in question is "testimony was provided that this transition to the northern tier and an improvement to the state network was a work in progress." (*Id*.) An explanation of a "transition to the northern tier" has not been provided to MTA's knowledge. While the IT subcommittee three times requested and scheduled a discussion of the northern tier, such a discussion three times was cancelled. ITSD has provided practically no information to enable the Committee, the Legislature or the public sufficient scrutiny of what ITSD means when it refers to "the northern tier." What are the terms and conditions by which ITSD uses "the northern tier." How much, and what kind of traffic does it carry? Moreover, there is insufficient information to determine whether the northern tier—however it is defined or used—is "an improvement to the state network" or not, regardless of whether it is a "work in progress."

The most disturbing aspect of this "recommendation" is its implication that the state is in the process of assembling a separate state telecom network "funded

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with a combination of a reduction in contract services and rate recovery." In other words, the state is planning to disinvest in private telecommunications networks by reducing (or abrogating?) contracts, and to build its own network by increasing rates it charges to state government entities. What is the business case for such a policy? Does ITSD believe it can build a network that is more robust, more efficient, and less expensive than existing networks that currently fill the competitive telecommunications landscape? The Committee has been given no data or analysis to justify such a conclusion.

Issue "X:" ITSD Rate Structure

The Report indicates that currently network costs are "funded through a cost recovery model via SITSD." (*Id.*) MTA recommends that the Committee investigate ITSD's cost recovery model (i.e., rate structure), which according to comments at one of the subcommittee meetings, allows ITSD to "bury" costs in its rates. If the Legislature intends to explore the most cost effective, efficient use of taxpayers' IT dollars, it is important to investigate how efficiently ITSD operates, particularly given its lack of transparency regarding "the northern tier" and other state network plans "in progress." How much does ITSD charge other agencies for its services? How much will it charge if it succeeds in completing its "improvement to the state network?" How are those charges derived, and how are they billed? Is there a "profit margin" imputed in the charges? How do ITSD rates compare to similar services provided by alternative providers? It is entirely possible that the state government, and taxpayer, are getting the best deal possible by contracting with ITSD for IT services. Or not. Without due diligence and transparency, we just don't know.

<u>Efficiency in Government Is Attained through Leveraging Existing Infrastructure</u>

Montana's telecommunications providers—not just MTA members—are willing and able to meet the state's telecommunications needs in a cost effective, efficient manner that will save taxpayer resources and maximize the use of existing network facilities.

Instead of leveraging private network investment, this Committee and the Legislature in general continue to hear assertions that the state needs to "expand" its broadband network without receiving any data regarding why, where and how it needs to expand its capacity, or how such expansion will save taxpayer resources. It may be true that the state needs more capacity. How it obtains and manages current as well as additional capacity is critical. But where's the analysis?

What are the best ways to satisfy the state's needs once properly identified? What alternatives has the state explored in determining the most efficient, cost effective manner in which to acquire bandwidth? What analysis has the state

conducted regarding the relationship between cost and capacity, or the efficiencies gained by leasing network services rather than owning and operating them?

Middle-mile and backbone ("core") networks are among the most competitive segments of the telecom market. (There are several middle mile network providers in Montana.) And yet, ITSD infers that it plans to build its own middle-mile network.

Without specific data to substantiate ITSD's assertions, this Committee and Legislature are shooting in the dark. They will have no idea whether the state is making cost effective decisions, or whether state government is optimizing its opportunities to run efficiently.

In addition to lacking sufficient information to determine the *direct* costs of the northern tier and other "works in progress," the Committee has not considered the *opportunity* costs of ITSD's "build it ourselves" policy. Instead of leveraging existing assets and driving down the cost for all users, public and private, a parallel state network would increase the cost of network investment and telecommunications services for Montana's consumers and crowd out further private investment and associated jobs. Return on investment would be diluted by the removal of major anchor institutions from the public network. Private telecom providers would have less incentive, not to mention revenue, to invest in network enhancements. Moreover, state government, even with its "own" network, would have fewer competitive options by which to maximize its choices for cost-effective IT solutions. And a state network would not be driven by the same market forces that drive private enterprises to maximize efficiencies and deliver competitive services at optimal prices.

As Steve Pociask, CEO of the American Consumer Institute in Washington, DC, recently stated, "It becomes a misallocation of resources when public dollars are spent to crowd out private investment." (Chicago Sun Times. 10/2/12.)

The FCC recently evaluated why it's more cost effective for large anchor institutions (e.g., government entities) not to construct their own network facilities. [1]Its findings include:
- using third-party service providers is easier than running a complex and technical network.
- it has not always proven necessary to own facilities in order to obtain broadband deployment to targeted locations. Service providers have laid fiber and made other investments where necessary to enable them to provide the services requested.

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[1] Wireline Competition Bureau Evaluation of Rural Health Care Pilot Program. Federal Communications Commission. WC Docket No. 02-60. August 13, 2012

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- through long-term arrangements, entities have been able to obtain low prices as well as high service quality and reliability and virtual private network configurations. Thus, it has been unnecessary to own the network facilities in order to secure good pricing and high service quality.
- by purchasing services as opposed to owning the network, projects can obtain the underlying services from a range of service providers, and thus can obtain a broader geographic reach, greater variety of cost comparisons, coordinated services, and often lower prices.
- purchasing services avoids creating permanent taxpayer obligations associated with the risks and costs of owning facilities. Efficiencies are gained by avoiding performance liability and on-going costs of keeping up with operations, maintenance and technology upgrades.

In short, why should the taxpayer be put in the position of venture capitalist when existing facilities more effectively and efficiently can be leveraged by the state?

Conclusion:

The Committee lacks sufficient information to make a reasoned determination as to whether our state government is efficiently spending taxpayers' dollars by cost effectively acquiring and utilizing information technology.

Respectfully submitted,

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