

Comparing a Statewide Broadband Contract to Individual State Agency Contracts

Introduction

The fiscal year 2016 appropriation bill for the Department of Administration (DOA) required an analysis of broadband contracts and placed restrictions on contracts issued by the DOA. This analysis is in response to Section 9 of the intent language in Senate Bill 1175:

SECTION 9. LEGISLATIVE INTENT REGARDING ISSUANCE OF CONTRACTS RELATING TO BROADBAND FOR STATE AGENCIES.

It is the intent of the Legislature that, prior to the expiration of the six-month emergency contract currently in place for broadband-related services at state agencies, the Department of Administration shall analyze and justify the cost, benefits, and flexibility of a statewide contract, as compared to individual contracts issued by state agencies, for the purchase of broadband and related services for state agencies. Said analysis and justification may include, but is not limited to, issuance of a Request for Information or Request for Proposal and the Department of Administration is hereby directed to issue contract(s) based on the results of said analysis. In addition, the Department of Administration shall not enter into any contract with an initial term, or a renewal option, that is longer than one year until a longer-term policy direction is established by this Legislature in concert with the Governor.

After summarizing the current environment, the analysis will address cost, benefits, and flexibility, in accordance with the intent language, before addressing conclusions drawn from the examination. In preparing this analysis, DOA relied in part on research from Gartner, Inc. (<http://www.gartner.com/>), one of the top information technology research and advisory companies in the world. DOA also spoke with Gartner's Director of Research for Networking and Communications Services, Danellie Young, about the impact of the intent language and gathered perspectives from agency representatives and other states to ensure a broad and objective information base.

Current Environment

This section outlines the contracts, costs, and requirements for how State government currently operates in regards to broadband and related services. The purchase of broadband for state agencies is currently achieved through five centrally administered contracts used by 45 agencies, boards, commissions, offices, etc. The monthly costs for these services are approximately \$260,000, paid by the using agencies. These five contracts do not include the two contracts for internet service and a series of contracts for security systems and service. A high-level, logical diagram of the interrelationship between agencies, broadband service providers, public internet, and security (firewall) can be found in Attachment A.

Contract Information

The broadband services contracts used by agencies include an emergency contract with CenturyLink that is used by approximately 22 agencies, including 5 public health districts. This contract is for broadband service outside Ada and Canyon counties and is generally referred to as the Wide Area Network, or WAN, contract. The 22 agencies purchase approximately \$200,000 per month in broadband service to 184 locations through this contract. The emergency contract with CenturyLink ends on August 27th, 2015 but allows for up to 120 days of transition time to move agency services from the emergency contract to open and competitively bid suppliers. Establishing contracts to replace the emergency contracts requires that a Request for Proposals (RFP) be published to potential suppliers near the end of May 2015.

Within the geographic boundaries of Ada and Canyon counties, state agencies use an open and competitively bid suite of contracts for broadband services. This suite of contracts is generally referred to as the Metropolitan Area Network, or MAN, contracts. The supplier and usage breakdown is reflected in the table. As mentioned earlier, there are 45 agencies, boards,

or commissions which use one or more broadband suppliers through the WAN or MAN contracts to meet their needs.

Metropolitan Area Network (MAN) Contracts Usage			
Supplier	# Agencies	# Locations	Monthly Cost
Syringa	11	37	\$15,610
Zayo	8	11	\$3,650
Level 3	21	42	\$27,600
Electric Lightwave	19	48	\$12,500
Subtotal:		138	\$59,360

One of the current strategic initiatives for technology which agencies are pursuing is incorporating broadband microwave services through the Idaho Military Division into the solution set for broadband services. Where it makes sense to do so for individual agencies, using microwave services leverages the significant investment made to create and maintain the Public Safety Microwave network. Using the microwave service does not require a contract, just an operating agreement between agencies. However, the central approach to networking under the current strategy does make it easier for all agencies to access those services.

Closely related to the broadband services through the emergency contract and the MAN contracts are access to the public internet and to core network services provided by the Department of Administration. In addition to the five broadband suppliers, there are two suppliers of public internet service: Integra Telecom and CenturyLink. With one or two exceptions, every agency, board, or commission accesses the internet through the core network, along with elected officials and individuals accessing the public wireless systems in and around the Capitol. The monthly value for this service is approximately \$4,400 per month, with agencies consuming approximately 300 Megabits per second of actual data passing through the network during the day. On a weekly basis, about 10 trillion bytes of data flow into the State's network.

Accessing the public internet through a core network allows the state to efficiently address key cybersecurity requirements, such as firewalls, network intrusion prevention, anti-spam (for email), web protection (filtering), botnet detectors, and data loss protection. Security services are also related to broadband services and are tightly integrated with them. For equipment and for services, there are contracts with a number of suppliers including McAfee, Check Point, F5, Juniper, RSA, Palo Alto, Symantec, and Cisco. Some agencies have replicated specific cybersecurity systems in order to meet specific federal audit requirements, but few, if any, agencies replicate the entire cybersecurity systems suite centrally provided by DOA.

Customer Requirements

In preparing a Request for Proposals (RFP) to replace the current emergency contract, the Department of Administration has sought input from all agencies, including invitations during open meetings, to develop requirements. The list of agencies which provided input includes Health and Welfare, Labor, Fish and Game, Transportation, Environmental Quality, Liquor Dispensary, and Corrections. These agencies collectively developed technical requirements for the RFP. All agencies were given the opportunity to review and provide input on the requirements through the Information Technology Leadership Council (ITLC), a subcommittee of the Idaho Technology Authority (ITA). The requirements from the RFP will be made available once published through the procurement process.

Costs

There are several basic cost considerations related to a statewide broadband contract compared to individual agency contracts: end costs (one-time versus recurring), aggregation circuit costs, and development costs.

One-Time Costs

One-time costs may include the simple cost to transition from a current vendor to a new one. They may also include necessary investments in capital or infrastructure made by the new vendor to provide or establish services, which may be passed directly to the customer depending on the amount of investment and the term of service. One-time costs can be quite high when the new service includes an installation of fiber optic cable or an upgrade to Ethernet equipment. One-time costs vary widely from site-to-site and are usually associated with the so called “last mile” or local loop. The opportunity to invest in a particular site is influenced by the type of service, the service provider’s existing network, and the financial position and operating policies of the provider. As a result, the direct impact of the contracting process, (statewide versus individual) as one aspect of one-time costs, is difficult to assess, but slightly in favor of a statewide contract.

Some providers allow customers to amortize one-time costs over the life of a contract. As it requires a smaller upfront investment, amortizing costs can be very advantageous to customers. However, amortizing one-time costs must be closely managed. Providers who seek to eliminate one-time costs for customers may simply incorporate those costs into the monthly recurring service fees. This creates the very real possibility that customers overpay for one-time costs.

A centrally managed contract makes it much easier to maintain one-time costs as a discrete element in billing, whether amortized or not. Maintaining one-time costs as a discrete element ensures that those costs drop off the customer bill when the costs are fully amortized. This consideration of one-time costs is highly in favor of a centralized, statewide broadband contract.

Recurring Costs

Recurring costs are part of the total cost of ownership for broadband service to a given site, but are distinct from one-time costs. Recurring costs are usually stated in monthly increments and are often referred to as monthly recurring costs or MRC. These are the basic costs for a

service and may include investments by the vendor that are not passed on directly to the customer. Recurring costs may be simple, similar to a monthly cable bill, or thousands of dollars per month for advanced high-speed service.

In addition to influencing whether or not one-time costs are passed on to customers, the monthly recurring costs are “dictated by length of contract and revenue” (Danellie Young, personal communication, 24 March 2015). Young indicates that overall revenue impacts pricing. Without a statewide network, vendors perceive and treat State agencies as a series of small, independent customers, rather than a large-scale customer. For example, when the Department of Health and Welfare encountered a persistent problem with broadband service, DOA was able to escalate that problem within the vendor’s organization. As a result of DOA’s involvement as a large customer, top executives in the vendor’s organization became involved and the problem was resolved. Disaggregating the purchase of broadband service eliminates the State buying power. A statewide contract, aggregated in a manner similar to current operations, provides the most advantageous pricing for agencies.

Aggregation Costs

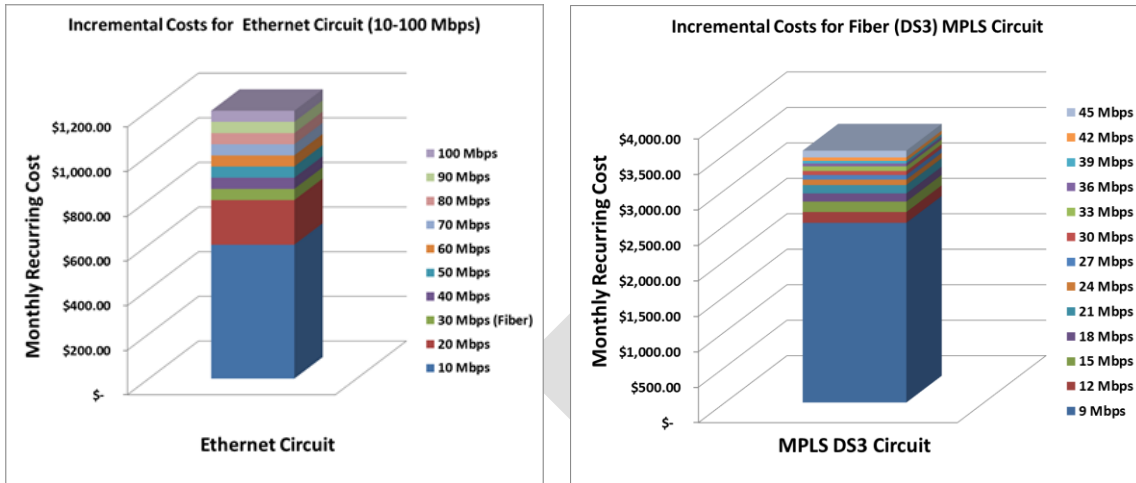
One of the most difficult issues to grasp is what exactly the State is buying through its broadband contracts. The State is not buying internet access—that is procured through separate contracts. When the State buys broadband services, it is contracting for a suite of services to create a secure, private network for an agency or agencies to connect to outlying locations, to other agencies, or to shared services (e.g. payroll, security, or internet). Attachment A, a diagram of the State’s network, shows the core network, key vendor broadband services, and internet access. Internet service to agency locations rides over the vendor broadband service along with other interagency applications.

In years past, broadband was simple to understand; customers (agencies) bought a telecommunications connection from point A to point B. Today, agencies buy a connection from point A into a vendor's network, and that connection provides them with access to any other point on the vendor's network, limited only by the vendor's network coverage and security policy. The vendor's network backbone does the work to connect point A to point B. However, as the diagram below shows, point A and point B must each have a connection to the vendor's network in order to create a connection between the two. When one understands that most agencies aren't simply worried about connecting point A to point B, but need to connect multiple locations back to a headquarters as well as connecting between locations, the efficiency of leveraging the vendor's network becomes apparent.



When many customers share a common geographic location, like agencies downtown, it's most efficient to consolidate all those commonly located agencies into a single connection to the vendor's network. That consolidation is done through an aggregation circuit connecting to a core network. An aggregation circuit is most efficient and effective in terms of cost and manageability, without sacrificing any technical specifications. Where there are enough customers sharing aggregation, the savings can be enough to buy an additional circuit to increase the failover capability of the network, where a system failure triggers an automatic reroute of network traffic to keep services running.

As the chart below indicates, aggregation circuits are more cost effective as the initial connectivity is most expensive. Incremental increases in the size of the connection come at a much smaller price (e.g. you can double your connection speed without doubling your cost). As



aggregation is only possible through some common contract vehicle, the cost effectiveness and reliability enhancements of an aggregation circuit support statewide contracts as the broadband procurement strategy.

Here's how aggregation circuits save money. Consider that both Health and Welfare and Fish and Game have remote offices they need to connect back to Boise. The first half of the connection is for a remote office. Let's say that each agency buys a 10Mbps Ethernet circuit for their remote office and pays about \$600 each. They could each buy another 10Mbps Ethernet circuit to complete the connection to Boise and pay another \$600 each, or they could combine their traffic on the Boise side into a single 20Mbps Ethernet circuit and split the \$800 cost, paying only \$400 each. By aggregating all possible traffic through central broadband contracts, DOA repeats this cost reduction and sharing scenario literally hundreds of times.

Cost to Contract

Pursuing a statewide contract is less expensive, in terms of effort and resources, than having individual agencies pursue their own. Requiring each agency to secure its own broadband services contracts will place additional workload on agencies to develop requirements and on the Division of Purchasing to support the various efforts. Individual agency efforts will also require more time to manage the many disparate contracts. The larger agencies, such as Health and Welfare, Transportation, and Labor have dedicated purchasing and technical departments and could pursue individual contracts, though pursuing individual contracts would still constitute duplicated effort. Some smaller agencies will not have the resources to pursue individual contracts and would require significant assistance.

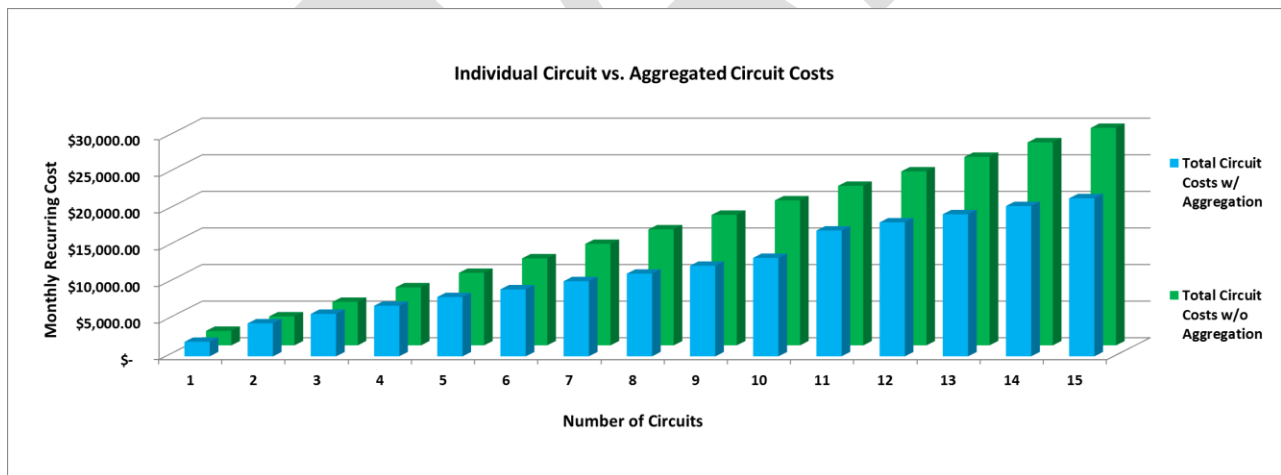
A statewide effort also avoids the question of what to do with agencies that require broadband but do not have the resources to pursue an independent contract. By pursuing a statewide contracting effort, the State can leverage appropriate centralization without limiting an agency's ability to meet its individual needs. As noted by Gartner analyst Andrea Di Maio (2005), "The trend in government is toward greater centralization of IT management due to the fundamental desire to deliver more-efficient IT support to increasingly complex government organizations" (p.1).

Idaho government should operate as efficiently as possible, while allowing agencies latitude to fulfill their roles. By centralizing the contracting in a statewide effort, but retaining flexibility in the technical architecture, the State balances the efficiency of centralization with a "greater ability to respond to the specific priorities" of different agencies (Di Maio. 2005. p.1). Thus, when considering the two purchasing strategies, cost-effectiveness favors a single, statewide effort.

Exceptions on Costs

While cost considerations discussed above support a statewide approach to purchasing broadband services for state agencies, there are some possible exceptions worth considering. These exceptions include low-level purchases of older broadband technology and small office purchases of basic internet service.

Older technology broadband services (e.g. entry level T-1s to more robust DS-3s and OC-3s) are still prevalent in many parts of Idaho and are heavily used by agencies where more economical options are not yet available. Where entry level services are purchased in small quantities, the economic advantages of aggregation are not realized. The break-even point occurs around the time four or more T-1s are purchased (see chart). However, the State currently purchases a few hundred T-1s or equivalent circuits, making the economic advantages of aggregating circuits very practical and achievable.



The other possible exception to the general rule that centralized purchasing of broadband services is most advantageous occurs when an organization is only interested in internet service. A small agency or remote office could possibly realize lower costs on broadband service by individually negotiating a one-off contract for internet services.

However, there is a limit on this possible exception as well. The possible savings in broadband service costs would be more than offset by increased costs in cybersecurity services necessary to protect data in the State's possession when using internet access, rather than a centrally secured statewide network. The data to be protected often includes citizen private data such as social security or health data. In some cases, such as health information, broadband savings would be further offset by the added costs necessary for an individual site to comply with federal audits.

Other Benefits

In addition to cost and flexibility, there are many other benefits to a statewide network, including alignment with leadership policy intent, effectiveness and reliability of broadband service, cybersecurity, infrastructure efficiency, and whether a given procurement strategy prepares the State to meet its future needs.

Alignment with Policy Guidance and Strategy

During the 2013 Legislative Session, the Legislature established the Idaho Technology Authority (ITA), whose purpose includes the "development of a statewide strategic plan to ensure a coordinated approach to the design, procurement and implementation of information technology and telecommunications systems" (I.C. 67-5745). In February 2015, the ITA adopted a strategic plan specifying that Michael Farley, IT Administrator for Department of Health and Welfare, will lead efforts by key agencies to establish "network service offerings to all state agencies." Statewide procurement of broadband services is part of this strategic effort. The requirements for a Request for Proposals have been developed in accordance with this plan and with the active participation of agencies.

Establishing the ITA has provided leadership to integrate statewide broadband efforts, a weak area the Office of Performance Evaluations (OPE) had previously identified (Report 08-01, March 2008. p.79). In their March 2008 report, OPE specifically recommended that “the Office of the Chief Information Officer [OCIO] ... lead the effort to develop a detailed strategic plan to integrate the state’s current and future broadband networks” (p.81). The actions of the ITA and its members in pursuit of statewide procurement for broadband services align precisely with the OPE recommendation.

In their 2005 study, Mingay and Young identify the “main drivers for consolidation are efficiency and cost savings,” as well as “technology advances in operations management” (p.1). In this case, the State would consolidate the procurement effort, while the agencies retain responsibility for determining the level and type of service they need within the suite of contracts available statewide. This is more akin to a shared service than a consolidated service, which per Mingay and Young (2005), “optimizes the value inherent in the service” while allowing agencies to “pull” services based on their requirements and resources (p.2). The same study indicates that this method of service could “extend beyond efficiency goals to include effectiveness” (p.3). Consolidating procurement while agencies continue to retain control over broadband quantity balances the best elements of consolidated and shared services. These advantages are only available through a statewide procurement effort.

Effectiveness and Reliability

Allowing individual agencies to pursue their own contracts is likely to result in a degradation of services. Young (2015) argues that “while such a strategy [individual procurement] could provide for some lower pricing in some cases, often consumer grade services are leveraged as a tradeoff or for convenience. Such lower priced, consumer grade services are

typically offered with less robust SLAs [service level agreements] and best effort service characteristics unless strictly governed” (personal communication). This means vendors could replace advanced broadband services such as Multi-protocol Label Switching (MPLS) and carrier Ethernet with cheaper, consumer grade services such as cable internet or Digital Subscriber Line (DSL) service, which would disrupt some agency services.

SLAs typically address acceptable failure rates for broadband services and specify consequences to vendors for failing to meet standards set forth in the SLA. So called “best effort” services often mean a customer has little recourse for unsatisfactory service other than cancelling a contract, which has its own disadvantages in cost and effort.

Cybersecurity

A statewide procurement effort supporting a cooperative and collaborative networking and cybersecurity approach among agencies provides the greatest opportunity for ensuring consistent overall network integrity and security. For example, central security service allows the state to efficiently operate a wide variety of important systems: Intrusion Detection and Prevention to identify attacks; anti-SPAM filters to stop unwanted emails; web content filters to protect against attacks from websites; botnet detectors to detect outside control and use of State computers; and Data Loss Prevention to look for unprotected citizen private information.

Disaggregating the procurement contracts would result in a disaggregated network design, leading to inconsistent network security, as agencies struggled to replace the loss of central systems. Inconsistent security could lead to a higher level of cybercrime and successful cyber-attacks against agency systems, impacting services provided to citizens. For example, most agencies already have a firewall as part of a defense-in-depth strategy for cybersecurity; however, most agencies do not have the other security elements mentioned previously: intrusion

detection and prevention; anti-SPAM filters; web content filters; botnet detectors; and data loss prevention. In a disaggregated network, agencies would face a tough choice, either establish their own security services or face higher cybersecurity risk by operating without the additional protection. The cost to add the extra security features to all agencies is not quantifiable without specific data from agencies on their current security but could easily run anywhere from \$10,000 to \$100,000 for each element an agency adds.

The conventional wisdom of the networking and security community is that it is better to focus defenses against cyber-attacks than it is to distribute defenses in the hopes of avoiding a cyber-attack through anonymity. While there is no magic talisman to serve as proof against every possible cyber-attack, the State should adopt strategies that enhance security wherever practicable. When considering the State's cybersecurity posture and capability, a statewide broadband procurement strategy most effectively enables a higher level of security.

Infrastructure Efficiency

As with cybersecurity, there are definite advantages in infrastructure efficiency through a statewide procurement effort. In a disaggregated design, there will necessarily be increased costs through duplication of hardware and services, both for network and for security. Disaggregated network design would also likely result in degraded technical specifications. Smaller agencies will be in a weaker position for negotiating strong support agreements in their contracts and for promoting vendor investments in local service. Degraded technical specifications will result in reduced support and functionality for some applications. By aggregating procurement and coordinating network design, the State can address these shortcomings, reducing duplication of network and security systems and ensuring a strong position for negotiating contract terms.

On the other hand, cooperative networks enacted through a statewide procurement strategy promote efficiency by drawing on expertise from multiple agencies. DOA has spoken to agencies who explicitly declare that they don't want to pursue their own independent contracts and prefer to rely on DOA and provide input through DOA on a statewide procurement effort. In addition, DOA has shared the draft content of this document with agencies and the IT Leadership Council and received broad support as reflected in the attachments. Individual contracts introduce additional overhead and burden to agency staff that may not in every case have the skills and knowledge to appropriately acquire suitable network services.

Agencies were invited to comment on a Request for Proposals for statewide broadband. The invitation was extended both through personal communications and in a public meeting of the Information Technology Leadership Council, the primary technology subcommittee of the Idaho Technology Authority. Key stakeholders were specifically encouraged to participate. DOA received back comments from six agencies: the Department of Health and Welfare, the Department of Transportation, the Department of Environmental Quality, the State Liquor Dispensary, the State Tax Commission, and the Department of Fish and Game. All the comments were positive, constructive, and supportive. Common remarks indicated agency thoughts that a multi-vendor award will provide for a much better service and capability offering to all state agencies and that the flexibility in being able to update services or change vendors was critical and appreciated. None of the agencies suggested that they would prefer to pursue independent contracts for broadband.

Final Advantages

According to a National Association of State Chief Information Officers (NASCIO) issue brief (2006), nearly 86% of states indicated that they were consolidating or had consolidated

network (broadband) services. Technology has not changed sufficiently to warrant a change in direction, and discussion threads as recently as 2012 on the National Association of State Telecommunications Directors (NASTD) list serve indicate that states continue to pursue consolidated or shared network services for the many benefits those efforts render. In a 2012 conversation, 14 of 15 states participating indicated they had or were planning to address networks (broadband) as a consolidated or shared service. Most recently, the Executive Director of the National Association of Chief Information Officers, Doug Robinson, stated that he is not aware of “any state that has or is disaggregating broadband” (6 April 2015, personal communication).

Young concluded that, “Therefore, using fewer providers [in an aggregated statewide contract] vs [sic] many at the mercy of individual agencies will not only be easier to manage, but will provide better pricing, performance levels and improved long term partnership to insure broader services are made available in support of your longer term network evolution” (personal communication, 24 March 2015). This is a clear statement establishing the benefits the State can receive by continuing its strategy of statewide broadband procurement.

Flexibility

Flexibility may apply to either available technology or to vendors. For technology, flexibility becomes less necessary as a technology approaches commodity status. For example, when considering the commodity of electrical power, most consumers require little or no flexibility other than location of generic outlets to provide availability of the commodity. Special cases may require different power applications, such as higher voltages or currents, direct versus alternating current, or extra reliability; however, the limited range of special cases is itself evidence of the commodity status of electrical power.

In similar fashion, broadband is at or approaching commodity status in that there are limited options for service variation (apart from location). Some apparent choices are dependent on availability, such as the choice between Time Division Multiplexing (TDM) compared to Ethernet technology, or the choice between copper versus fiber infrastructure. For modern broadband requirements, few customers would opt for TDM over copper if Ethernet over fiber were available. Real choices within broadband availability include managed versus unmanaged services, higher availability through SLAs, and private broadband versus direct access to the public internet.

Private, managed broadband networks provide inherently higher service levels and better technical parameters than are available through unmanaged access to public internet. Even with the higher service model of private and managed broadband, agency services historically have required intense focus by agency experts, DOA assistance, and intervention by vendor executives at the highest level to ensure uniform delivery of broadband services statewide. Those issues are now a few years in the past; however, they are clear indications that Idaho government services require more strict technical parameters than provided through simple access to internet. For this reason, flexibility in technical parameters are not a high driving factor as the technical parameters in most cases will need to be superior and guaranteed through stringent SLAs.

On the other hand, flexibility in available vendors will be crucial to ensure agencies have the widest possible access to preferred services. Because one-time and recurring costs are heavily influenced by extant capability (e.g. availability of Ethernet over fiber), flexibility with available vendors means a better opportunity to directly access preferred technology solutions and avoid, where possible, unnecessary markups. Flexibility in available vendors is best achieved through a

suite of contracts, and a suite of contracts is more readily achieved by central contracts rather than through individual attempts by agencies.

Young and Bell (2005, p.4) support this idea through analysis of organization structure, stating “For unifunctional [sic] processes, such as those required to deliver ... communications services, a traditional one-authority reporting relationship will suffice.” The analysis by Young and Bell favors a single, authoritative approach to communications (i.e. broadband) services. As a result, to the extent flexibility favors one contracting strategy over another, it favors a statewide effort.

Broadband Contract Terms

Legislative intent language limited a statewide broadband contract within DOA to a 12-month term. As policy discussions related to broadband procurement proceed, it’s appropriate to consider what length of contract term would be most advantageous. Young points out that vendor deployment of Ethernet and fiber “are more likely when customers are committed to longer term contracts” (Danellie Young, personal communication, 24 March 2015), meaning the most desired technology and infrastructure, fiber and Ethernet, will be less likely for agencies on a 12-month contract. Fiber is necessary for high speed Ethernet, but a contract limited to 12-months is not likely to incentivize vendors to install fiber, limiting the most desirable services to locations where they already exist. It is possible that the broadband procurement effort to replace the current emergency contract with CenturyLink will attract fewer respondents due to the 12-month constraint.

Young stated that the average (typical) terms for network service contracts are 36 months. She reiterated that longer terms provide better pricing as price is dictated by length of contract and revenue. She cautioned that the State may get fewer responses on a 12-month contract, and

that vendors may not make the investment for Ethernet and fiber for such a short term (Danellie Young, personal communication, 24 March 2015). Still, DOA “will not enter into any contract with an initial term, or a renewal option, that is longer than one year” in accordance with legislative intent.

Because of the one-time costs to transition to a new provider, a broadband service procurement constrained to a 12-month term will heavily favor the incumbent provider, currently CenturyLink operating on emergency contracts. For the reasons articulated in this section, as well as feedback from agencies, and other data throughout this analysis, DOA concludes that a broadband policy encouraging 36-month or longer contract terms will be a superior procurement strategy for agency broadband in order to contain costs, to ensure a variety of vendors, and to encourage vendors to deploy modern technology.

Conclusion

No study, expert reference, or peer knowledge uncovered during the course of this analysis concluded that independent agency efforts were superior in terms of cost, benefits, or flexibility for state agencies broadband service. In fact, every study, expert reference, or peer direction supported the soundness of the State’s recent strategy to aggregate requirements into a statewide contracting effort. A statewide contract for broadband services is the procurement strategy most likely to result in favorable one-time and recurring costs, and it avoids unnecessary costs by reducing duplicative network and security systems. A statewide effort is the most likely to result in the greatest benefits to agencies and to best prepare them to meet future requirements, and a statewide procurement strategy for broadband renders the best and most appropriate flexibility for agencies in meeting their current needs. For these reasons, the State should pursue a

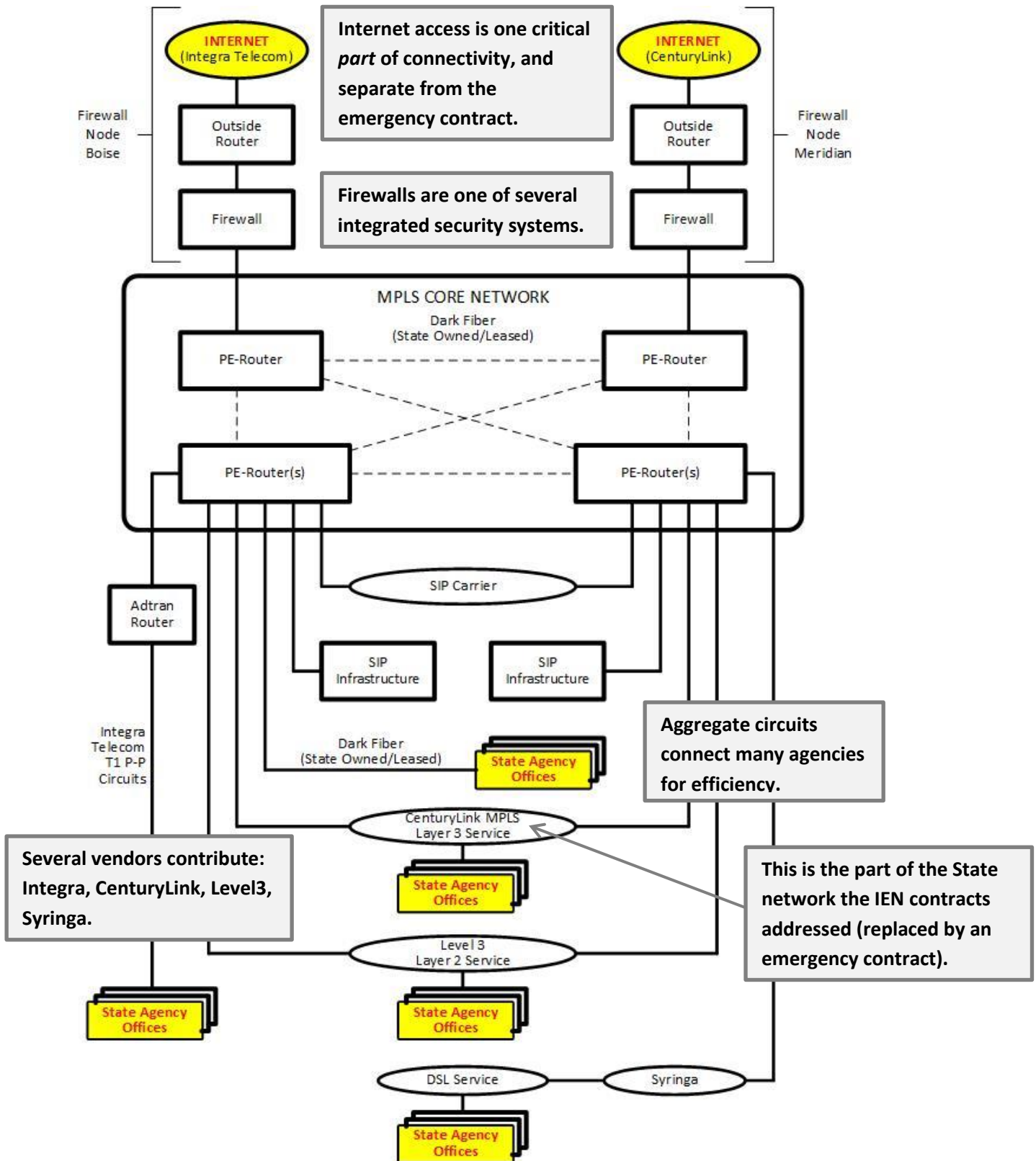
statewide strategy for procuring broadband services, in accordance with legislative intent and in coordination with requirements provided by individual agencies.

DRAFT

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Attachment A- State Network Diagram



Attachment B- Letter of Support (Idaho Dept. of Health & Welfare)



IDAHO DEPARTMENT OF
HEALTH & WELFARE

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RICHARD M. ARMSTRONG – Director

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April 8, 2015

Teresa Luna, Director
Idaho Department of Administration
650 W. State St.
P.O. Box 83720
Boise, ID 83720-0003

RE: *Broadband Services Analysis*

Dear Director Luna,

The purpose of this letter is to support and endorse the Department of Administration (DOA), Office of the Chief Information Officer's (OCIO) analysis of the broadband situation in Idaho as documented. The comparison of a statewide broadband contract versus contracts issued by individual agencies is accurate and validated by thorough research.

The goal of Governor Otter, and his charge to the Idaho Technology Authority (ITA), and the Information Technology Leadership Council (ITLC), is to be fiscally responsible to the citizens of Idaho by state agencies collaboratively working together to eliminate redundant spending and waste.

This document clearly outlines the correct path for procuring broadband services into the future. While some larger agencies may enjoy procuring their own broadband or telecom services as in the past, it does not make fiscal sense moving forward. One contract on behalf of the state with multiple vendors is the best of all options. Several contracts for the same service(s) is costly and redundant.

One major concern that should be mentioned and challenged is the timeframe or term of the contract. A one year contract is extremely limiting given the time it takes to procure a service into a physical location or area of the state that requires a build out or installation. A three year contract at minimum is more realistic in the telecom world.

This analysis also supports the strategic goal established by ITLC for acquiring network services, which is supported by ITA as the best approach for meeting the needs of the State of Idaho and that of the agencies.

Sincerely,

MICHAEL R. FARLEY
IT Administrator, Dept. of Health and Welfare
Chair, Information Technology Leadership Council

MRF/kh

Attachment C- Letter of Support (Idaho Dept. of Fish & Game)



IDAHO DEPARTMENT OF FISH AND GAME
600 S Walnut / P.O. Box 25
Boise, Idaho 83707

C.L. "Butch" Otter / Governor
Virgil Moore / Director

April 9, 2015

Ms. Teresa Luna
Director of Administration
600 W State St, Room 100
P.O. Box 83720-0003

Dear Director Luna,

Please accept this letter as the Idaho Department of Fish and Game's support for the approach proposed by the Department of Administration (Office of the CIO) to develop a solution to provide statewide wide area network services. These services are critical to our success as a state agency and the flexibility this approach will provide is much needed. We have read the OCIO's Broadband Services Analysis and concur with the findings and conclusions. My staff has been working closely with the OCIO and other agencies' staff executive officers to ensure this approach best meets the needs of the State of Idaho, the agencies, and its constituents.

Regards,

A handwritten signature in black ink that reads "Virgil Moore".

Virgil Moore
Director

CC: Greg Zickau (OCIO Chief Technology Officer)

Keeping Idaho's Wildlife Heritage

Equal Opportunity Employer • 208-334-3700 • Fax: 208-334-2114 • Idaho Relay (TDD) Service: 1-800-377-3529 •
<http://fishandgame.idaho.gov>

Attachment D- Letter of Support (Idaho State Tax Commission)



PO Box 36 • Boise ID 83722-0410
800 Park Blvd., Plaza IV • Boise ID 83712-7742

April 7, 2015

Mr. Greg Zickau
CTO State of Idaho

Dear Mr. Zickau,

The Idaho State Tax Commission supports your analysis of the broadband situation in Idaho. Further the Tax Commission does intend to utilize contract vehicles established by your office and does not desire to seek separate contracts.

Sincerely,

A handwritten signature in black ink that reads "Mike Teller". The signature is written in a cursive, flowing style.

Mike Teller
CIO
Idaho State Tax Commission

Attachment E- Letter of Support (Idaho Dept. of Environmental Quality)

Department of Environmental Quality comments to Comparing a Statewide Broadband Contract to Individual Contracts Issued by State Agencies.

The Department of Environmental Quality supports the use of a consolidated, unified, statewide system to connect DEQs regional offices located in Kellogg, Coeur D'Alene, Lewiston, Boise, Twin Falls, Pocatello, and Idaho Falls.

DEQ agrees with all points made in the study.

The following observations are made:

1. DEQ has used both the consolidated system (IdaNet and the current system) and independent provider services to the regional offices. The last cost study done in 2012 showed that using independent provider services saved DEQ only about \$18,000 per year. While that is a cost savings, the savings is small and the value of services now offered by the consolidated service in use now is well worth the premium.
2. DEQ emphasizes disaster recovery and service resiliency. DEQ has redundant equipment located at the State Controller's Data Center (moved from our office in Idaho Falls, where it was essentially worthless due to very low bandwidth) This equipment is now connected to our state office by the new 10Gbps metro-ring provided by the Department of Administration. Access to the metro-ring is a critical resource for DEQ. It provides exceptional connectivity to the SCO site. All DEQ data is replicated in real time to the SCO office. The SCO site is often used as a production site for DEQ as needed for the maintenance of equipment located at the state office.
3. A unified network allows for quick and easy connection of the regional offices to the SCO site in the event of unavailability of the state office's data center. DEQs disaster recovery plan envisions displaced DEQ employees working at intact state offices. Allowing DEQ data to be available to other offices is critical to keeping DEQ working in an emergency.
4. DEQ is providing client based access to other state agencies to DEQs TRIMDocs document management system. The web client for TRIMDocs is not robust nor very well developed. A unified state network promotes effective secure access using the client installed on other agency PCs and allows DEQ to discriminate access using state IP addressing.
5. DEQ provides and procures GIS information to and from other state agencies. A common fast network is critical in maintaining GIS availability.
6. The 10Gbps metro-ring opens up real opportunities for DEQ to access services hosted by other state agencies.

Received via email from Nick Powers – 4/16/2015

Attachment F- Comments of Support

"We are in agreement with the conclusions provided in the document and believe a multi-vendor statewide contract would benefit our agency as well as the state."

Pat Donaldson, Idaho Dept. of Correction

"IDWR supports consolidation of connectivity to leverage pricing where possible."

Glen Gardiner, Idaho Dept. of Water Resources

"The ID Dept. of Juvenile Corrections (IDJC) supports this analysis.

IDJC needs network/internet services 24 hours a day for our three juvenile housing facilities. When there is a connectivity problem we rely on the expertise of DOA to track and monitor the issue through the repair process. We do not have capability manage this for our seven statewide locations (Coeur d'Alene, Lewiston, Nampa, Boise, Twin Falls, Pocatello and St. Anthony) especially if we had to work with several local vendors.

Without the DOA's management of the VPN and the ability to share networks with IDHW, IDOC and ITD our WAN budget would dramatically increase."

Mike Seifrit, Idaho Dept. of Juvenile Corrections

"I did read the draft and it does make sense for the state to save money by pursuing a statewide contract and aggregating the many circuits. I also do not understand the 12 month limit on contracts myself, as that seems to go against industry standards, and will certainly cost much more long term. Your analysis looks sound from the overall cost and efficiency point of view.

While I agree with your analysis and I do support what you do, I could see a benefit to my agency having the ability to build a network focused primarily on our business.... I do realize that there are many benefits to the current system (MEG, network failover, and such) so it is a tough subject."

Jon Spence, Idaho Division of Liquor

Attachment G: IT Leadership Council Endorsement

At a regular meeting of the IT Leadership Council on April 21, 2015, the Council voted unanimously to “endorse the analysis and conclusions of the Department of Administration that a statewide broadband procurement effort is in the overall best interests of state government.”

Members present:

Michael Farley (Chair)	Idaho Department of Health and Welfare
Shannon Barnes (Vice Chair)	Idaho Department of Transportation
Becky Barton-Wagner	Idaho Department of Insurance
Robert Butler	Industrial Commission
Bob Nertney	Health Districts
Glen Gardiner	Idaho Department of Water Resources
Mike Teller	Idaho State Tax Commission
Mike Langrell	Idaho Military Division
Stan Passey	Idaho State Police
Scott Williams	Idaho Division of Vocational Rehabilitation
Tammy Shipman (<i>abstained</i>)	Office of the State Controller

Alternates present:

Bart Butterfield (<i>Alternate for Craig Potcher</i>)	Idaho Department of Fish & Game
Matt Sande (<i>Alternate for Dan Raiha</i>)	Idaho Department of Lands
Michael Kalm (<i>Alternate for Eric Beck</i>)	Idaho Department of Labor