INTRODUCTION

Syringa Networks clearly sees the Idaho Education Network as a valuable educational asset. Like any asset, the network must be well managed in order to maximize its value for all Stakeholders.

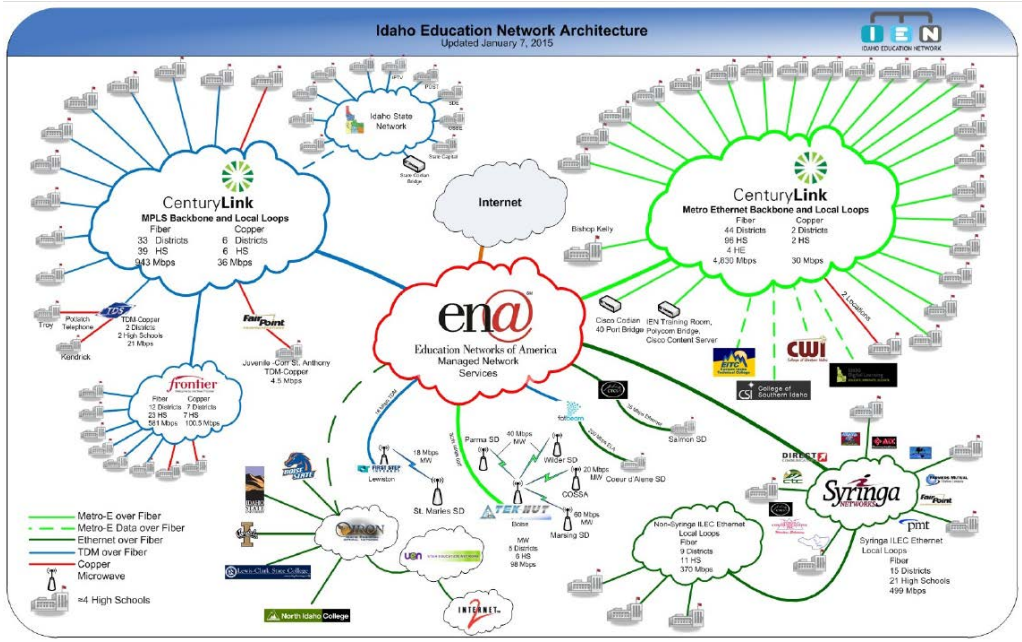
The recommendations outlined in this response are a framework for the OCIO to leverage a unique period in telecommunications history. In the last two years, Ethernet has swept the industry and placed significant price pressure on services offered by carriers. With proper positioning of contract duration, price guarantees for upgrades, and by incorporating a few concepts outlined in this RFI, we believe the IEN could save over 50% of its current costs within the next two years.

EXISTING DESIGN

Syringa Networks has reviewed and understands the architecture of the existing IEN design, including local loop, backbone, peer and internet connections, the utilization of copper, fiber optic and microwave connections. We also understand the existing management and oversight approach of the IEN.

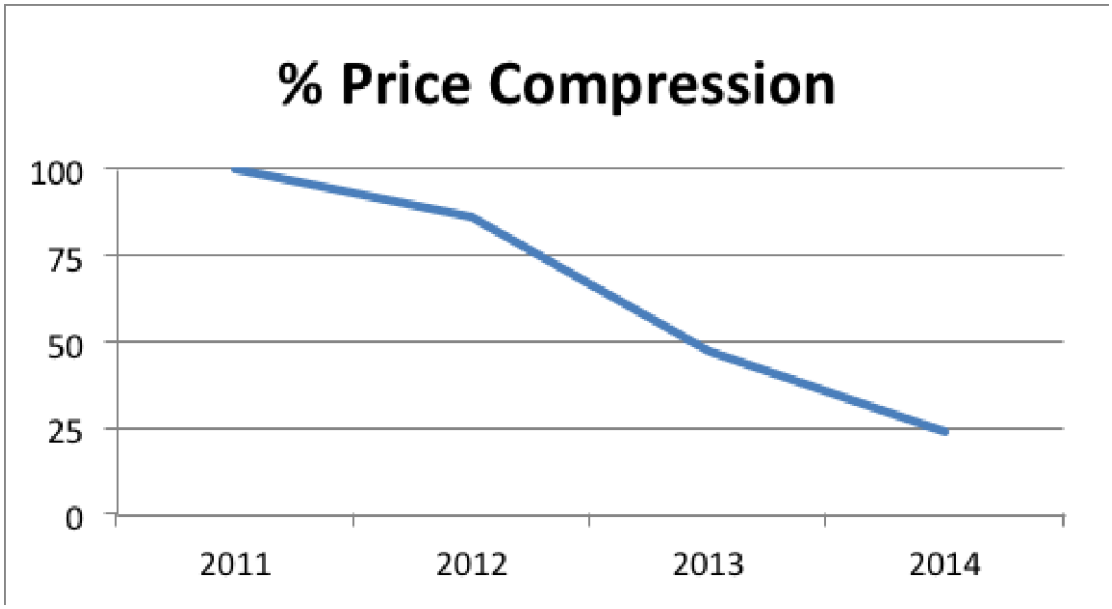
We have seen many instances where a network architecture controlled by a centralized third party is neither cost effective nor efficient. This is because the controlling third party has no incentive to lower prices or to pass along savings.

With respect to the IEN, every taxpayer dollar paid in excess to a controlling third party is a dollar not available for classroom supplies, teacher compensation, and other strategic initiatives. Unfortunately, the current network design and implementation of the IEN fosters this type of inefficiency.



Market Price Compression

From the inception of the IEN, the price per Mb for broadband services has steadily declined in the marketplace. An example of this would be Syringa Networks service provided to a school district participating in the IEN. The graph below represents our percentage of price reduction of approximately 75% on service to this particular school district from 2011 to 2014. This price erosion is typical of bandwidth prices, and the IEN total costs on a per Mb basis should have dropped in similar fashion over the last three years. This pricing compression will likely continue, providing the opportunity for future savings for the IEN.



Long-term contracts awarded to a single vendor prevent the IEN from fully leveraging price compression. While some price compression is realized at the 5 year contract interval, a substantial window of savings is missed between renewal years.

It is notable that the IEN elected to renew the original contract one year early to take advantage of this phenomenon. At the IPRAC meeting on 8 April 2014[1] Mr. Zickau stated "savings realized through early contract renewal" and "a lot of capacity is available now due to the early contract renewal" demonstrated that the OCIO sees and understands price compression. Unfortunately, IEN had to wait 4 years to realize these stated savings, and had to re-term the contracts for another 5 years.

[1] From the IPRAC Meeting Minutes 4-8-14

It would stand to reason, therefore, that the OCIO would want to seek shorter term contracts to realize the best price points for bandwidth. Syringa Networks clearly shares that perspective.

Syringa Networks recommends all connectivity contracts be limited to 36 months with no auto renewal clauses.

Third Party Central Control Issues

When assessing the current architecture and implementation of IEN it is apparent that single vendor awards and central control by a Third Party result in the following issues:

Need for Network Administration: The IEN needs its own Network Administration team like Health & Welfare or Department of Labor. This need is a result of issues such as vendor selection, vendor competition, colocation and transport costs, USAC filing, bandwidth limitations, trouble resolution, CTAC, multiple points of failure, and disaster recovery.

Syringa Networks recommends that the State establish its own Network Administration team in-house.

Multiple Markups on Circuits Driving Unnecessary Costs: Today, the State gets its connectivity from its third party vendor that has central control. In most cases, a circuit comes from one party who then purchases some portion or all of that circuit from another carrier. Each time an additional provider is inserted in the purchase of the circuit, the costs to the state rise by the margin added at each layer. We know of at least one case where the State was paying 3x for the same loop they could have bought directly. This same scenario is likely being repeated for dozens of circuits throughout the state.

Syringa Networks recommends that the State separate connectivity from content and bid each school on an individual case basis with the requirement that connectivity be delivered to one or more hub sites managed by the State.

Lack of Vendor Competition: Using a single source vendor model removes vendor competition from the equation. This limits the IEN's ability to take advantage of competitive forces in the marketplace. In a multiple award situation, vendors compete for service awards which reflect current market pricing.

State Agencies Lack Flexibility in Vendor Selection: There is no reason to encumber agency networking needs with E-Rate and other issues unique to the IEN. Combining these procurements place the agencies at a severe disadvantage in securing network services that meet their objectives.

Syringa Networks recommends the State separate contracts for the IEN and State Agency needs.

Colocation and Transport Cost Inefficiencies: Additional costs for colocation as well as transport to content providers and the Internet are embedded with a Third party vendor. Cost savings could be realized by leveraging the State's internal resources.

Syringa Networks recommends the State utilize their own datacenters, network and personnel to create more cost effective content delivery design.

Technical Design Issues:

The existing design utilized by the IEN has limitations that inhibit maximum effectiveness:

- Bandwidth Limitations. By utilizing a single source vendor, many schools are left with only Copper, TDM, or Wireless low bandwidth connectivity options. If multiple vendors were awarded, the service provider with the best connectivity option could be utilized. For example, some school districts are currently connected via TDM services even though fiber optic Ethernet connectivity is already in place and available. It is widely recognized that fiber optic service is a superior choice due to its high reliability, scalability and lower cost per Mb.

- Customer Technical Assistance Center (CTAC). In the current design, a Third Party Vendor is in control of the CTAC, network monitoring, and customer support. This creates the potential for the following issues: increased costs, compounded trouble resolution times, lack of accountability, less visibility by Education/IPRAC employees, and potential for unwarranted transport provider preference.

Syringa Networks recommends that the Department of Education provide their own Network Administration staff and provide the Customer Technical Assistance Center (CTAC), network monitoring, and customer support services independent of the Network Services and Content providers.

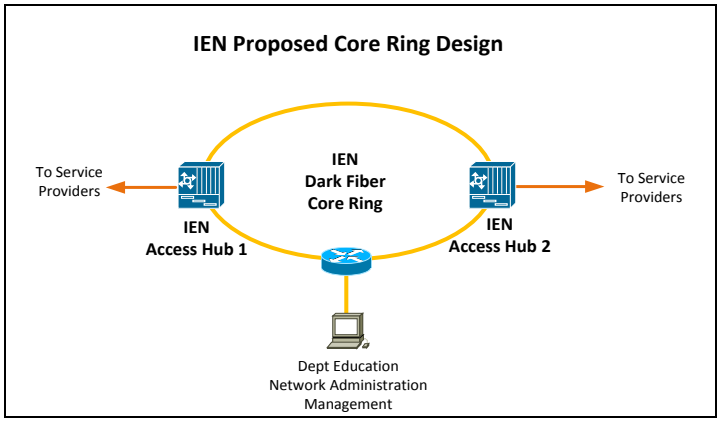
PROPOSED DESIGN

Syringa Networks recommends a network design that will provide for increased flexibility, redundancy, higher bandwidth capacity, optimal local loop selection and lower costs. Our proposed design model addresses these issues and fosters a competitive vendor landscape.

Recommended Core Ring Design

Syringa Networks recommends that the IEN implement a core ring design utilizing dark fiber which provides for scalability, redundancy and unlimited capacity.

The core ring would provide service to two major IEN hub locations where multiple network service, content, and Internet bandwidth providers deliver services. The dark fiber ring could consist of a combination of State owned and/or service provider assets. One of the inherent benefits of Dark Fiber is unlimited bandwidth at a static cost.

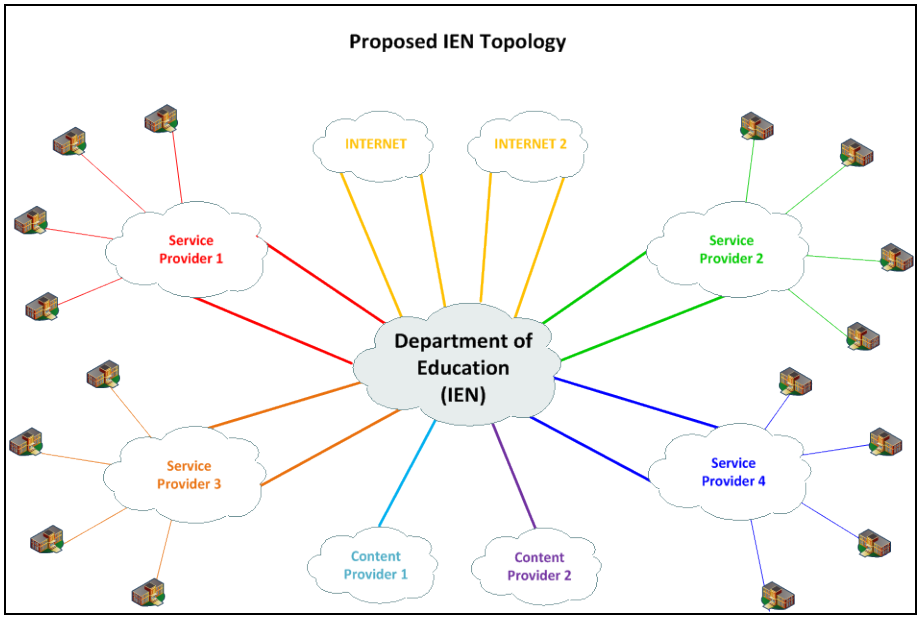


In this design, the Department of Education Network Administration would be directly connected to the dark fiber core ring for network management.

Recommended Network Topology

Syringa Networks recommended topology consists of multiple service, content and Internet providers connecting to the IEN Core Ring via redundant transport links at Access Hub locations.

This design provides diversity, redundancy, fosters competition among service providers, and creates fewer points of failure. The use of multiple vendors will increase the IEN's time to market and order processing efficiencies.



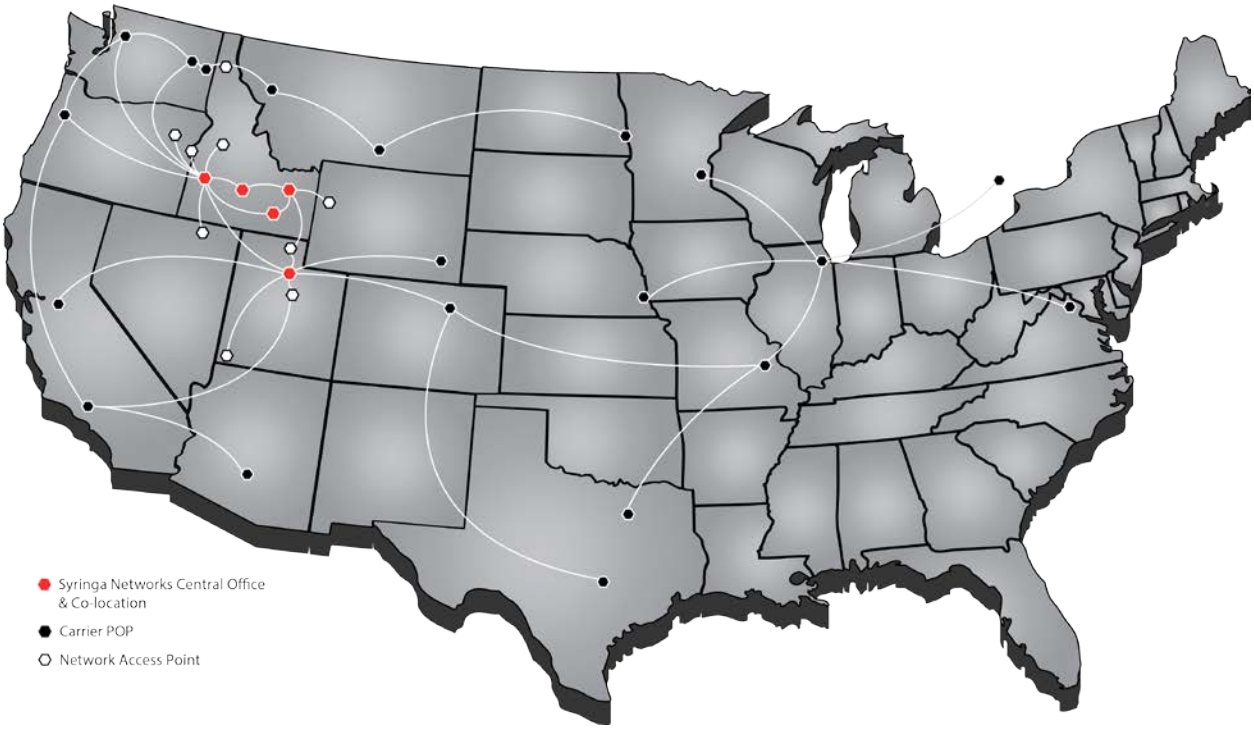
SYRINGA NETWORKS RECOMMENDATIONS SUMMARY FOR THE IEN

1. Syringa Networks recommends all connectivity contracts be limited to 36 months with no auto renewal clauses.
2. Syringa Networks recommends that the State establish its own Network Administration team.
3. Syringa Networks recommends that the State separate connectivity from content, and bid each school on an individual case basis with the requirement that connectivity be delivered to one or more hub sites managed by the State.
4. Syringa Networks recommends the State utilize their own datacenters, network and personnel to create more cost effective content delivery design.
5. Syringa Networks recommends the State separate contracts for the IEN and State Agency needs.
6. Syringa Networks recommends that the Department of Education provide their own Network Administration staff, and provide the Customer Technical Assistance Center (CTAC), network monitoring, and customer support services independent of Network Services and Content Providers.
7. Syringa Networks recommends a network design that will provide for increased flexibility, redundancy, higher bandwidth capacity, optimal local loop selection, and lower costs.
8. Syringa Networks recommends that the IEN implement a core ring design that utilizes dark fiber providing for scalability, redundancy, and unlimited capacity.
9. Syringa Networks recommended topology consists of multiple service, content and Internet providers connecting to the IEN Core Ring via redundant transport links at Access Hub locations.

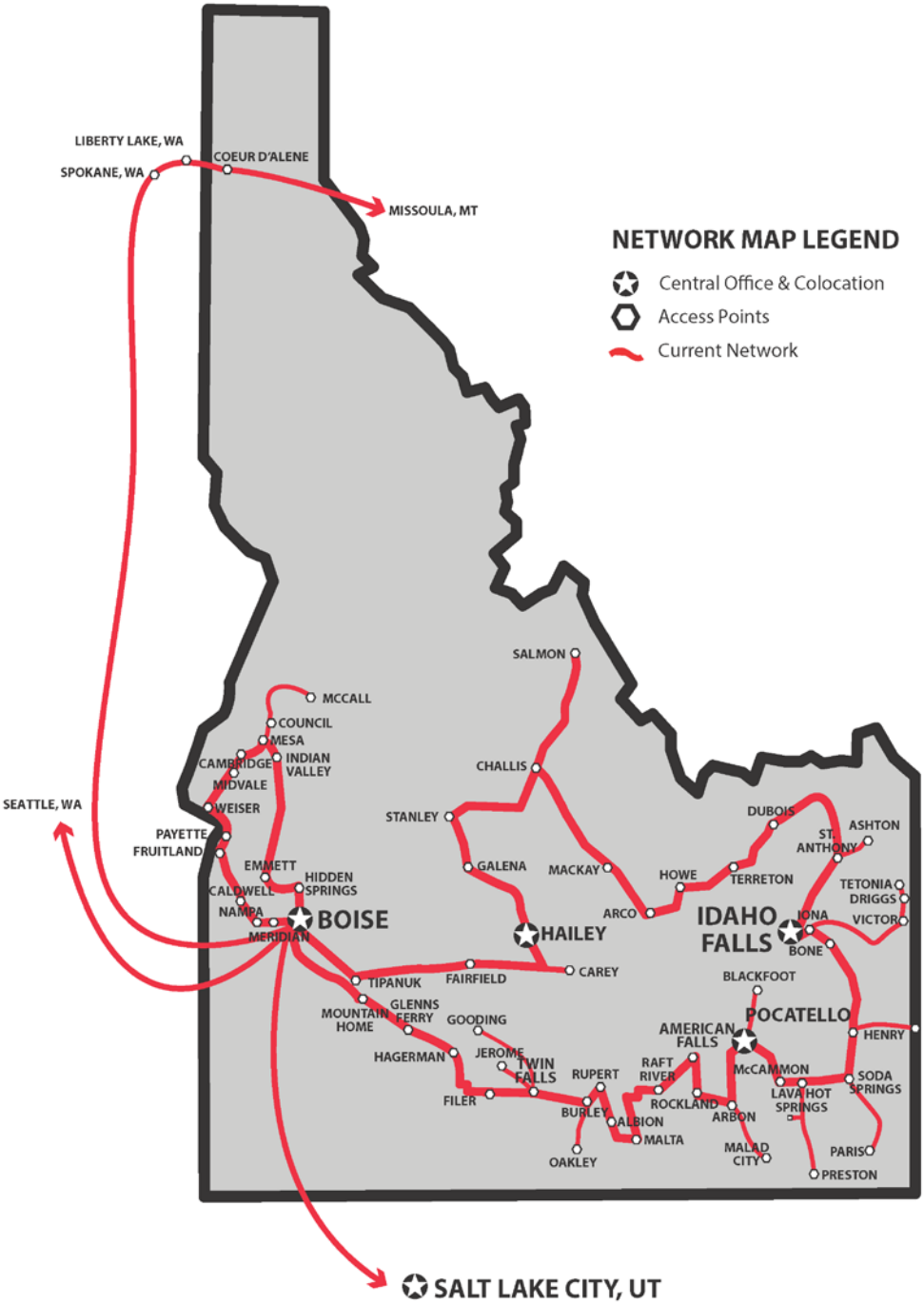
SYRINGA NETWORKS: A UNIQUE FIT FOR THE IEN

Given Syringa Network's extensive network assets and reach within the State of Idaho, we are uniquely positioned and qualified to provide network services to a significant number of IEN schools, libraries, colleges, and Department of Education's core sites.

Syringa Networks National Footprint



Syringa Networks Idaho Footprint



CLOSING STATEMENTS

We believe the adoption of the recommendations in this RFI response will result in significant improvements to the IEN and subsequent phase deployments providing:

- Reduced overall costs while maximizing services for tax payer dollars spent.
- Increase adoption and utilization of IEN by the schools.
- Maximum flexibility in response to technology changes.

As iterated above, we feel confident in our recommendations and look forward to participating in IEN's next steps.