

**ARKANSAS RESEARCH AND EDUCATION OPTICAL NETWORK**  
**David Merrifield, Executive Director (Interim)**

**INSTITUTIONAL GOALS, OBJECTIVES, AND STRATEGIES AS RELATED  
TO THE 2015-17 APPROPRIATION REQUESTS**

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**ENABLING LAW**

Act 1031 of 2013

**INSTITUTION HISTORY AND ORGANIZATION**

In 2005, the initial planning for a statewide optical network began to take shape and has since developed into the Arkansas Research and Education Optical Network, otherwise known as AREON. The importance of this endeavor was reinforced when Governor Mike Huckabee presented the newly organized AREON with \$6.4 million to begin the construction of the first phase of this statewide optical network that he called eCorridors, which was aligned with similar efforts in other states belonging to the Southern Governors' Association. Additional financial support came through an additional \$9.4 million through the issuance of higher education general obligation bonds under Act 1282 of 2005. Upon completion of the first phase of the network's growth in 2010, all but one of the 4-year public institutions in the state of Arkansas had access to resources far beyond what they had experienced in the past. This network literally opened up a window to the world with access to organizations such as Internet2 and National Lambda Rail. In 2010, the National Telecommunications and Information Administration awarded the University of Arkansas System \$102 million as a part of the Broadband Technology Opportunities Program to develop new broadband availability to support healthcare, education, and research throughout rural unserved and underserved areas in Arkansas. Of that award, AREON received \$41.2 million to carry out the second phase of its network build out. This phase was completed in late 2013 and focused on connecting all of Arkansas's two-year colleges and the remaining four-year university as well as to serve as the backbone for the UAMS telehealth network now called the Arkansas eLink Network. Now with over 2,200 miles of fiber optic cable throughout the state and into four neighboring states, Arkansas possesses a state of the art network that supports even the most demanding requirements and objectives for its higher education institutions including that of the University of Arkansas to be a Top 50 public research institution by 2021. By leveraging its network to support collaboration and development of new applications, Arkansas colleges and universities have new opportunities to excel in their efforts to elevate education, research, and healthcare and to promote economic development.

**MISSION STATEMENT**

To promote, develop, and apply advanced application and communication technologies to support and enhance education, research, healthcare, and economic development in the state of Arkansas.

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**GOALS**

- 1) Sustainability – to meet the ongoing financial needs for operations, technology and capital refresh, and new development in order to remain a viable and financially sound organization.
- 2) Improved Operations – to provide a superior level of operational service to our members through improved network monitoring, measurement, accounting, asset tracking, trouble ticketing, and trouble response.
- 3) Improved Network Resilience – to eliminate single points of failure within the network that could result in prolonged network or service outages for our members.
- 4) 100% Dark Fiber – to extend the same level of network performance and capacity to all our members by completing the task of bringing dark fiber connectivity to all our members.
- 5) Core Agendas – to continue our efforts to promote and support use of innovative applications by our members that leverages the use of the network and related technology in support of the four ARE-ON core agendas of education, research, telehealth, and emergency preparedness.

**GOVERNANCE**

ARE-ON is a high-speed fiber-based optical communications network and associated applications established and operated by a consortium of public four-year universities in Arkansas. ARE-ON is governed by the presidents and chancellors of participating institutions in cooperation with the Arkansas Department of Higher Education. AREON's governing structure contains three levels:

- 1) Board of Directors (presidents and chancellors of participating institutions) which serves as the strategic governing body
- 2) Management Council which serves as the operational governing body
- 3) Steering Committee which serves as the technical advisory body

**ADDITIONAL APPROPRIATION**

ARE-ON represents a critical component of the higher education mission to be both a cultural and economic engine for the state of Arkansas. AREON is a non-formula entity and is not currently receiving any general revenue. Until this new network has an opportunity to take advantage of the plethora of economic opportunities that will arise as a result of the further development of applications, it is imperative that the state provide a short term solution for meeting operational objectives.

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**ONGOING OPERATIONAL EXPENSES**

- 1) \$240,000 for additional annual maintenance for BTOP funded equipment
- 2) \$500,000 for operating lease for Ft Smith to Tulsa route (FY2016-17)

**PROGRAM ENHANCEMENTS**

- 1) \$2,000,000 for new construction and new or replacement IRU capital lease agreements
- 2) \$1,422,500 for equipment upgrades and replacements

**ADDITIONAL POSITION REQUESTS**

- 1) Two additional network engineers are necessary to manage this statewide network as well as support a growing number of members. Since we are contracting with a third party for NOC services, we can eliminate two NW Support engineers.

The general revenue request for new funding for fiscal year 2015-16 is \$1,365,000 and for fiscal year 2016-17 is \$2,797,500. These funds would be applied to the day-to-day maintenance and operation of the expanded network facilities. The current membership consists of two-year and four-year institutions for which their annual membership fees are the only source of dedicated revenue for day-to-day operations. These revenues are half of what is needed to fund operational expenses. General revenues can provide a short-term solution for the growing financial needs until the revenue opportunities have a chance to keep pace with the growth in expenses.