

## Broadband USA Applications Database

**Applicant Name:** County of Rockbridge

**Project Title:** Rockbridge Area Network RANA

**Project Type:** Last Mile Non-Remote

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### Executive Summary

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Executive Summary Rockbridge Area Network Authority Profile • RANA will be a community owned, open access regional broadband network offering broadband services to more than 80% of its service area. • The RANA service area is unserved and underserved with large areas completely unserved. The two fiber services areas are completely unserved, and the DSL service area is a mix of primarily unserved and some underserved. • A true public/private partnership, with 100% private service providers; local governments and the Authority do NOT sell any services and do not compete with the private sector providers. • RANA is incumbent friendly, and the two dominant incumbents have signed commitments to use the network to deliver services, including a triple play package. Another provider will provide competitive backhaul to the D.C. area, which has been a problem when trying to attract new businesses to the region. • RANA already has a negotiated agreement with a service provider who will use RANA facilities to offer DSL and fiber services. A second provider has signed a letter of intent to offer services, including telemedicine and health services, hosted small business services, and distance learning services. • Unemployment in the region is very high at above 11%, versus the state average of 7%. • The RANA infrastructure is a critical enabler of a regional economic development strategy focused on jobs growth and business attraction and retention. • The stimulus funding has the potential for creating over 50 direct jobs over the next three years. RANA, an open access, community-owned network, is a collaborative effort of Rockbridge County, the Cities of Buena Vista and Lexington, and Washington and Lee University. Its purpose is to provide the critical enabling infrastructure to transform the regional economy from a depressed manufacturing environment to a dynamic, small business, and entrepreneurial economy. This transformation, enabled by a world class “big broadband” network and a complementary economic development focus on attracting and supporting entrepreneurs and small businesses will allow the region’s economy to spawn new businesses, generate jobs, create wealth, and protect the rural character of our region. Rockbridge County is located in the west-central part of Virginia along the I-81 and I-64 corridors between Roanoke and Staunton, Virginia. The general service areas for the project include Rockbridge County as the primary middle mile project and the incorporated Towns of Glasgow and Goshen is the last mile to build out service areas of the project. The independent Cities of Lexington and Buena Vista will be passed through with fiber duct and vital school, government and public safety locations will be connected. Based on our 2008 broadband planning project and confirmed by an extensive market survey completed in 2007, the Rockbridge region is predominantly unserved and underserved. Broadband use is at only 41% which is much too low to implement the economic transformation envisioned. RANA will bring “big” broadband 100 megabit symmetric fiber connectivity to an additional 738 homes in the unserved towns of Goshen and Glasgow, DSL services to

3700+ households, more than 160 businesses in the Lexington/Buena Vista business corridor, and will also connect 50 health, public safety, K12 school, and government facilities, including 3 universities, a community College, the E911 center, eleven fire departments, eight Rescue Squad entities, two police departments, one sheriff's department five local government administrative offices, and four libraries. The project will also construct a shared regional data center, and Washington and Lee University has already signed a letter of agreement to be an anchor tenant for two-thirds of the space in the building. VMI, a four year college in Lexington, has also committed to using space, and several local businesses are keenly interested. This data center will be the only facility of its type in western Virginia, and will provide direct fiber connections to the Equinix Internet exchange facility in northern Virginia via Zayo Networks. The area has had substantial difficulty attracting new businesses because of the lack of backhaul and collocation facilities, and the data center and Zayo link solve both problems. Services to customers will be provided by private service providers, and not by RANA. RANA will build, operate, and maintain the network, but all services will be provided by private companies. Those services that will be deliverable over the network will include: Internet access, video, telephone, video conferencing, and many more. As an open network, RANA is fully committed to the non-discrimination and interconnections obligations stipulated in the NOFA. RANA is a political subdivision of Virginia and is required by law to provide publicly available price information and to provide interconnection to any requesting provider at the same price. The network is designed as both an open access and an open services system. This service-oriented approach focuses on lowering service provider costs by providing a high performance, symmetric (two way) 100 megabit fiber connection to every home and business in the funded service areas. Standardization on 100 megabit and Gigabit fiber connections will allow service providers to deliver advanced services like tele-presence HD videoconferencing to businesses, will help attract data centers and ecommerce operations to the area, and will enable many kinds of work from home and home-based businesses. The network can provide 10Gig and DWDM light paths upon request. The high capacity connections will also deliver HD video TV and video on demand services, voice telephone, Internet access, telemedicine and health services, security services, rich multimedia distance learning opportunities, and many other residential and small business applications. Operational management will be under the purview of a 5-member Authority Board of Directors; however the staffs of the County of Rockbridge and the Cities of Buena Vista and Lexington as well as Washington and Lee University possess extensive management and analysis talent and experience. Among examples of successful major infrastructure projects recently completed or in the works are a large water and sewer system, county courthouse, sewage treatment plant upgrade, elementary school renovations and construction of a middle school and various university buildings. The Management team has identified a qualified design/build team that consists of four experienced partners, including a broadband network design and project management firm, an engineering firm with extensive broadband infrastructure engineering experience with other community broadband projects in the region, a fiber construction firm that has constructed thousands of route miles of underground and aerial fiber in the region, and a firm that specializes in the design and provisioning of data centers. This team has indicated that construction can start in sixty days or less, and that they are prepared to submit a competitive proposal when a design/build procurement RFP is issued. A letter of intent to bid from this team is included as part of the supplemental materials. The overall cost of the system is \$11,955,106 with a match of portion of \$3,000,000. The match consists of \$2,500,000 cash from entirely local funds, and \$500,000 of

in-kind services from Rockbridge County. RANA is projecting a conservative 30% take rate for fiber services in the first year of build out, rising to 35% in year two, and reaching 40% in year three. The business fiber take rates are projected using the same figures (30%/35%/40%) even though business take rates generally tend to be higher than residential take rates because business telephone costs savings by going to VoIP often average 40% to 60% reductions, which provide a powerful incentive for businesses to switch to alternative providers on the new network. This is regarded as conservative because other community fiber projects in the U.S. have been reporting much higher take rates for broadband in unserved areas. Notably, the Utopia community fiber project in Utah, which switched on 2008 to the open services business model used by The Wired Road has been reporting take rates exceeding 50% in their rural service areas. Commercial providers offering broadband in underserved areas have been routinely reporting take rates in excess of 30%. The DSL take rates are projected at 40% in year one, rising to 50% in year two, and then declining slowly as fiber becomes more widely available. These DSL take rates are based on several years of sales and market data by the RANA DSL service provider partner--Global Village. RANA is primarily an economic development effort, and as such, expects to contribute to significant job creation. With the development of the RANA network, we expect to see more than 50 new jobs over the next three years. In addition, the extensive 90 mile middle mile network will allow the region to attract new businesses that will conservatively add an additional 50 new jobs. During construction of the project, we anticipate over 120 jobs to be created, which will bring the total job creation total to over 150, in an area of 32,000 population.