

**CYTEC Software Systems, Inc.**  
***Wireless Broadband Access to Rural Mississippi Delta Communities***

**Executive Summary**

CYTEC Corporation, established in 1980 and based in Jackson, Mississippi, is a privately held, minority-owned company concentrating on research and development and system integration of software, hardware, wireless, and operational solutions for military, government, and commercial entities.

CYTEC has designed, developed, and deployed a [REDACTED] Wireless Networking solution specifically designed to provide citywide wireless —WiFi (Wireless Fidelity) broadband Internet access to smaller, rural, and underserved communities. The [REDACTED] Wireless Network has been branded —[REDACTED], with the following tag line: —[REDACTED].

Currently, the [REDACTED] network is deployed in [REDACTED], Mississippi, a city of approximately [REDACTED] people located in the lower Mississippi delta region. Under this application, CYTEC proposed to use these stimulus funds to continue the development and build-out of the [REDACTED] wireless network to small, rural areas in the Mississippi delta region. The requested funds in this application will extent the [REDACTED] wireless network to 46 new towns and communities and 17 counties in the Mississippi delta region. The network will provide subscribers in these small communities that have traditionally been un-served or under-served due to their small size and limited populations to have broadband accessibly using the Fido wireless network.

Within the service areas we are proposing under this application, our network will provide at least 2 Mbps downstream speeds and pass over 73,806 residents, 26,803 households, 1,763 businesses, and over 456 community anchor institutions in our build-out areas. Within our service areas, the CYTEC team has identified the following institutions as community anchor institutions: schools, police stations, fire stations, post offices, libraries, medical facilities, and churches. These institutions represent key community entities where people seek services and tend to congregate.

The [REDACTED] network is designed and marketed to smaller, rural cities and towns where broadband Internet access is either not available or cost prohibitive to access. CYTEC's strategy is to work in conjunction with local municipal governments to provide broadband wireless Internet access to its citizens at a rate that is affordable for all citizens. [REDACTED] allows citizens in rural areas to have the opportunity for affordable broadband Internet access availability. The availability of affordable Internet access will have residual effects of encouraging more people to become computer literate and serve as a tool for economic development, and as a foundation to provide students with a technology platform and accessibility to the Internet at home and in their community to explore the educational benefits that Internet has to offer.

The [REDACTED] network is designed and implemented to be a simple, easy to use service that does not required any wiring in the home, additional special equipment, or limiting connectivity features. The [REDACTED] network is a [REDACTED] wireless network that blankets a town with accessibility to the

Internet, with no special or unique equipment to purchase. If your computer or PDA is WiFi enabled, users can connect to the [REDACTED] wireless network.

Because the [REDACTED] service is not specifically tied to a single address or household, our subscriber projection are based on individual users because of the access services we offer. The [REDACTED] system offers subscribers the ability to purchase [REDACTED] per month.

Based on aggregate pricing plan, our average pricing plan for all subscribers is \$ [REDACTED] per subscriber per month. Based on the available plans, the CYTEC team anticipates that the [REDACTED] plan. The [REDACTED] plans are made available for people who [REDACTED]. These options were designed because of the large number of people that visit this area for hunting or fishing trips and want to have access to the Internet when they are away and the fact that the Mississippi delta is a fairly poor region of the United States and [REDACTED].

In addition to the services plans, the [REDACTED] network has the added feature of [REDACTED] network. The feature allows the local first responders and city workers to have access to the Internet [REDACTED]. This feature has been very popular with the city workers and first responders in [REDACTED] network was installed.

The [REDACTED] wireless network is an open network without any access obligation to any provider or interconnection obligation. The [REDACTED] wireless network does not require any type of access client to installed on PC or PDA. The network allows the user to access and set their own bookmarks and home pages and does not purposefully direct, guide, recommend, or suggest any specific web page or service that the user has to access. Once the user enters their user ID, password, and the user is authenticated, the user has the freedom to access any website or application they desire.

The [REDACTED] wireless [REDACTED] system is a Terrestrial Fixed Wireless system that operates on unlicensed spectrum. CYTEC uses [REDACTED] application. The [REDACTED] platform and the [REDACTED] platform. Both radios have excellent performance with the major difference being physical dimensions and form factor. Both of these radios have been accepted by the USDA's Technical Standards Committee —A – Telecommunications for inclusion on the List of Acceptable equipment and materials.

The [REDACTED] [REDACTED] platforms that offer seamless wireless performance on the 2.4 GHz spectrum. The embedded chipset-radio design enables robust performance eliminating the need for additional mini-PCI radio hardware.

The CYTEC team of engineers, technicians, and business professionals have a demonstrated track record of implemented and supported various wireless technologies. CYTEC has signed an agreement with the [REDACTED], Mississippi to provide wireless broadband Internet access throughout the town and the network has been operational since April 2008. The CYTEC management team is comprised of a business entrepreneur that has over 30 years of experience in successfully operating technology companies. In addition, the management team also includes the VP of Operations that has over 14 years of experience in setting up and managing wireless telecommunications companies for a Fortune 50 company in domestic and international markets. The engineering and technical management team members are experienced in network design and installation of field based wireless networks. CYTEC is confident in the experience in the management team to ensure the network is properly designed, implemented and brought online according to the build-out schedule and operated using industry best-practices and always with a focus on increasing customer satisfaction and customer value.

CYTEC has estimated that the infrastructure cost, (wireless nodes, engineering, and network build-out) to be \$ [REDACTED], with additional Operating Equipment requirements at \$ [REDACTED], the total cost of this project is \$5,881,104. Based on the subscriber projection models, we anticipate that by year 5 we will have a total of [REDACTED] cumulative subscribers in the network spanning over 46 towns and communities in the rural Mississippi delta region with the vast majority of those subscribers being residential and individual subscribers.

CYTEC has projected that this project will add approximately 21 new jobs initially, and ramp up to approximately 25 jobs in year 5, however we anticipate up to 35 – 40 jobs would be indirectly created based on the network build out and addition service such as [REDACTED] [REDACTED] applications that may use the [REDACTED] network. CYTEC's [REDACTED] wireless [REDACTED] system is much different from an operational support point of view as with other systems. The [REDACTED] system is designed to be easy to use and not required a large support staff to operate. An example of this strategy is the amount of back office staff members required to support the operation. The [REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

Should we be awarded funding under this application, [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]

[REDACTED] CYTEC's other business ventures.