Broadband USA Applications Database

Applicant Name: BLACK ICE TECHNOLOGIES, LLC

Project Title: Build 4G Network infrastructures that will promote the demand for affordable & accessible broadband.

Project Type: Comprehensive Community Infrastructure

_______________________Executive Summary_______________________

Today's potential residential and commercial broadband subscribers in underserved and unserved areas are faced with unaffordable, unreliable or unavailable broadband services. Because of these problems, there is a lack of broadband demand by these potential subscribers and they are not able to take advantage of broadband quadruple play products and services for voice, video, Internet, and wireless. This puts vulnerable population groups areas (rural and suburban) at a great disadvantage as compare to the rest of Americans with broadband services, thus the digital divides remains. The reason why broadband technology has been underutilized is due to the following reasons: 'The lack of a cable plant in the rural and suburban area. 'Shared Internet speeds between cable subscribers. This means every home or business in the neighborhood share a set amount of bandwidth. The more users on the system, the slower the maximal speeds. 'Telephone wiring being too far from the central office to deliver effective DSL services. 'The further the distance the subscribers is from a WiFi wireless access point, the slower and less reliable the connections becomes. 'Fiber to the Home (FTTH) needs WiFi for Mobility inside the home or businesses. 'Fiber to the Home (FTTH) is generally priced very high due to high CapEx costs. Another problem worth mentioning is that 3G Wireless operators are struggling to keep up with demands as more end-users use their mobile devices to check Twitter, play online games and watch videos over the Internet. Mobile broadband subscribers are demanding that more high-quality, bandwidth-heavy content be readily and immediately accessible to them. At the same time, however, spectrum costs are still quite high, making it difficult for 3G Wireless Internet Service Providers (WISP) to fully capitalize on this golden opportunity. There is a need to create a 4G WiMAX infrastructure that will promote the demands for affordable broadband and accessible bandwidth for bandwidth-heavy content for all end-users and end-user devices over a broadband Internet connection. WiMAX, which stands for Worldwide Interoperability for Microwave Access, is a 4G telecommunications technology that provides wireless transmission of data on the 802.16 wireless standards. WiMAX is an enhanced version of wireless Internet, offering wider coverage, higher speed, and lower costs than the current Wi-Fi services. Wi-Fi connections transmit up to 54 megabits per second and cover a limited area of 100 feet. WiMAX connections far surpass this standard with a speed of up to 70 megabits per second and a 30-mile coverage radius from the transmitting base station. The overall cost of the proposed 4G WiMAX Infrastructure project is $16,206,433. Black ICE is an innovation leader in Broadband Wireless IP Technologies products and services for mobile and fixed subscribers. The I.C.E acronym stands for Internet, Communication, and Entertainment. Black ICE's distributed 4G WiMAX network infrastructures provide IP-based quadruple play services (voice, video, data, and wireless) with always-on broadband
connectivity complete with mobility, handover and roaming services to all subscribers anytime, anywhere, and on any platform.