



# **City-wide Public Wi-Fi**

A proposal for the City of Greensboro's  
Strong Cities, Strong Communities (SC2) Challenge

## **EXECUTIVE SUMMARY**

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**E**conomic development is subject to fads and trends just like every human endeavor. But one economic strategy that has always made sense is investing in key infrastructure. Traditionally, this meant building roads, bridges, and ports. But we now understand infrastructure to mean any community asset that improves the productivity of a wide range of businesses and households.

Our lifestyles, both at work and at home, depend increasingly on high-speed telecommunications. Individuals demand connectivity for leisure and household management. For businesses it's an absolute requirement regardless of their industry. And there is a substantial overlap of home-based businesses and entrepreneurs that blurs the lines between the two.

What if Greensboro chose to expand this particular form of economic infrastructure?

We believe it should. In this proposal, we outline the concept of pervasive public Wi-Fi (wireless Internet access), which we call Cityfi. Thanks to recent advances in Wi-Fi technologies and newly available portions of the radio spectrum, Greensboro has an opportunity to expand public Wi-Fi access beyond the limited range of "hot spots" in public parks and buildings, and throughout all of the city's neighborhoods and business districts. Cityfi is scalable, affordable, and technically feasible. Our proposal is that Greensboro take this opportunity and establish a truly city-wide Wi-Fi network.



Greensboro is well-positioned to create Cityfi, in part because the city already possesses an extensive municipal network of fiber-optic cable and Wi-Fi nodes. It also has experience and technical expertise deploying publicly accessible Wi-Fi in public facilities, including libraries and Center City Park. These facilities will serve as Cityfi's backbone.

Other cities have successfully implemented networks very similar to Cityfi. Mountain View, California, has a free city-wide Wi-Fi network run by Google, which is headquartered there. Mountain View is a mid-sized city, but larger cities are also investing in municipal Wi-Fi. Minneapolis, Minnesota, offers city-wide Wi-Fi through a corporate vendor. Portland, Oregon, has an extensive Wi-Fi network run by a nonprofit. Overseas cities such as Tel Aviv and Helsinki offer free municipal Wi-Fi. The new technologies have led U.S. cities such as Sacramento and San Fernando, California, to solicit providers for information and bids to

establish city-wide networks.

As in these cities, the Cityfi concept will deliver Wi-Fi that is free to users. Under the state's so-called Level Playing Field Law, passed in 2011, it is nearly impossible for cities and counties in North Carolina to offer for-pay broadband Internet service. But the law permits a free service.

A free Wi-Fi network will do great things for Greensboro. Just as roads and bridges provide businesses with free transportation services, Cityfi will provide businesses with free access to the entire Internet. Reducing the expense of Internet access might not matter much to the city's largest employers, but it will be a tremendous boon to start-ups and small businesses. Every city's economic-development plan claims to spur innovation and entrepreneurship. Cityfi will accomplish both.

Just as important, Cityfi will address the "digital divide" in Internet access. The divide is between those with ready access to the Internet at high transmission speeds and those with poor access or no access at all. Much has been written about the lower rate and speed of access in rural areas, but the digital divide exists even within cities. In fact, roughly one-third of all Greensboro residents are without broadband Internet access. Among the greatest benefits of Cityfi will be the availability of free Wi-Fi in previously underserved areas of Greensboro.

Cityfi will provide everyone in Greensboro with opportunities to tap into the online educational resources of Guilford County Schools, Guilford Tech, and the area's colleges and universities. High-school students will be able to do research for term papers. College students will be able to mix on-campus coursework with distance learning. Working adults will be able to take entire courses online in the evenings while their children are asleep in the next room.

These educational opportunities are extremely important, because the biggest economic challenge Greensboro faces is a relatively uneducated work force. For generations, the city specialized in mature manufacturing industries such as textiles, apparel, furniture, and tobacco. Workers could achieve a middle-class lifestyle with only a high-school diploma, or less. Thanks to the deeply rooted structural changes in the economy, which have been felt nowhere quite as severely as in Greensboro, those days are almost entirely over.

More than ever, the key to personal success is getting an education beyond high school. And the key to a region's economic vibrancy is a highly skilled work force. Cityfi can be part of the solution.



For the city of Greensboro, Cityfi is both feasible and affordable. Its potential benefits to the city's economy make it a smart investment in the future of our community.