

SECTION I - EXECUTIVE SUMMARY

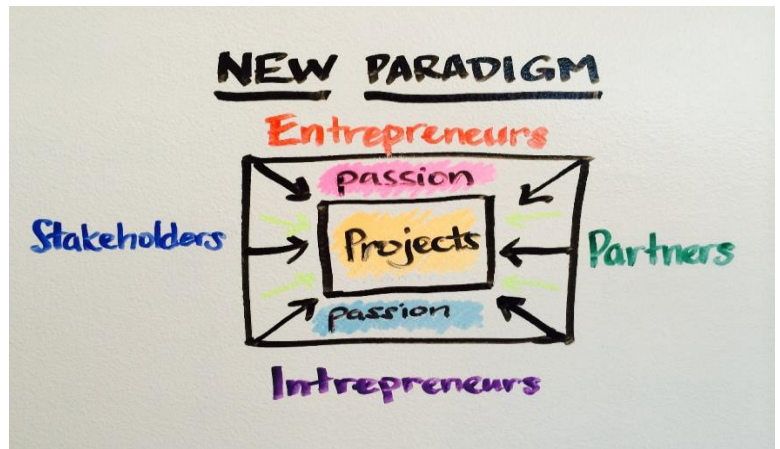
Our Bold Vision

Gig G will *CONNECT* and *CATALYZE*, and *REVOLUTIONIZE* the Greensboro ecosystem!

“Gigabit Greensboro!”, “Greensboro’s New Gig!”, “Gigantic Greensboro!”...”Gigging the Greensboro Status Quo!”. These are actual quotes from the 200 passionate Stakeholders, Partners, Entrepreneurs and Intrepreneurs that have seen the Gig-G presentation and are now on our team. And this team grows every week as Gig-G has become a movement in Greensboro. Everyone can clearly see Greensboro as the leading super connected city of the 21st century linking some 30,000 organizations and [118,000 households](#) with unprecedented Internet speeds from 1-100 gigabits! Both high tech and low tech entrepreneurs will be grown locally and recruited nationally by the lure and benefits of not only immediate high speed access to customers, vendors, mentors and partners but a community that is pro-active, pro-social and fanatically eager to see everyone succeed! Greensboro will operationally define “community” in the new millennium. Existing entrepreneurs will also see their businesses catalyzed and some will be revolutionized.

Passionate teams of individuals will come together (and are coming together now) in teams to make those passions come to life, where people of gender, ethnic, racial, cultural, economic, and age diversity in our community will recognize Greensboro as a place where amazing things are happening and “everything is possible”.

Existing paradigms of people interacting professionally and socially with each other and institutions will be dismantled and new ones rebuilt from this technological foundation. A small number of those new paradigms (and projects) are outlined in this proposal. In this unique process of outreach our team members have actually defined a new paradigm with more than 200 visitors building the Gig-G engine and providing its high octane fuel. We call it “The Greensboro Partnership Paradigm” (GPP).



GIG-G WILL CONNECT THE ENTIRE GREENSBORO COMMUNITY

We will design, develop and build an extensive publicly owned and controlled gigabit speed Fiber Optic Network for local community use. This new high powered Wide Area Network will emanate from downtown Greensboro and extend to the Greensboro city limits (north-south-east-west). Our network will be built accessing existing network conduit (tubes for fiber optic cable) and through unique partnerships it will be built below market costs. The Gig-G **Open Access Model Fiber Network** will be available to all ISP Internet Service Providers for a fee. This will establish new powerful revenue streams for Gig-G and Greensboro (market est: [24,000 businesses](#) and thousands of govt/education locations).

Every Gig connection will be instantly on the global backbone. Every community in the country is trying to bring gigabit Internet speeds to their residents as they understand that this capability will be “the new cost of entry into the competitive game”. Some have been selected by large internet service providers for deployment. Others have formed community consortiums to persuade ISPs to build networks in their towns. Still others have formed municipal utilities or even given over valuable community assets in return for promised services. All are at the mercy of the ISPs in terms of timetables to launch, network design and deployment and even the prices residents will pay. The Gig-G team knows our community can do much better than any of these approaches, and we can move more rapidly, while protecting our community’s best interests.

Through a rigorous community asset search process, IT expertise and (an) innovative expert team building (employing the GPP) we have: 1). found powerful unknown community assets 2). assessed their capabilities and 3). designed and

validated a new ultra high speed Internet network building plan that not only alleviates the key issues of other strategies but protects and builds upon unique strengths and opportunities here in the Triad.

Gig-G will shift the Greensboro economic trajectory (again) and re-establish Greensboro as a premier community in the country – a dynamic, innovative, connected, passionate community. Gig-G is a social entrepreneurial venture focused on entrepreneurship, education, per capita wages (good jobs), and growth rates (business velocity). Gig-G will invest in people and their ideas and provide a framework for action. Gig-G will leverage our city's unique assets, universities and businesses in a major technological renaissance that will ignite new and emerging economic development opportunities.

We will design, develop and build a publicly-owned gigabit speed Fiber Optic Network-for local community use. The Gig-G Open Access Model fiber network coupled with our unique and innovative [15-501c Gig-G Social Entrepreneurship Fund](#) business model will save network users money and generate funds for business development and acceleration to promote job creation, goodwill grants and entrepreneurial energy to boost the quality of life in Greensboro.

We intend to rapidly light up existing fiber and conduit, by accessing existing UNC-G infrastructure, and provide new fiber network connections in municipal rights of way such as the Greenway loop, as well as selected downtown business locations. We have even discovered available municipal fiber conduits to provide coverage in the Greensboro suburbs.

Local and Regional Economic Priorities

We have to attract businesses and wake up our home-grown entrepreneurial passions. Greensboro has been flat with national averages in economic performance for the past 25 years, especially shrinkage of the employed labor force (see Section II graphs). Greensboro has lagged compared to Charlotte and Raleigh/Durham area which have done better and have kept growing with a greater high-tech population and quality of life ([link](#)). Even Winston-Salem has managed to outpace us with accelerated hi-technology centers.

Greensboro is wedged between two metropolitan (Raleigh/Durham and Charlotte) areas that have drawn more attention from AT&T and Google and regardless of promises they may make, these telecommunication giants have their economic priorities elsewhere. Winston-Salem already has fiber infrastructure as well, so Greensboro is behind, and needs this gigabit-speed boost to bring its workforce, businesses, colleges and universities into the future.

Our projects will improve perceptions of Greensboro as a great place to visit, work, live or invest, including bolstering the arts, entertainment, culture, and overall quality of life. We will attract providers of high-quality jobs and our projects will also create a perception of downtown that is attractive to a creative class of workers and employers, and that will support further entrepreneurship.

Gig-G has developed a comprehensive strategy, tactical plan and organizational infrastructure to support and carry-out this bold new vision of our city's future. We will re-energize Greensboro's brand and will once again be the leader in our region's entrepreneurial ecosphere. Greensboro will be a premier innovative community in the country. Gig-G proactive programs are designed to assure Greensboro's best place in the 21st Century economic ecosystem of NC and the US.

An Innovative and Practical Approach to a Local Economic Development Strategy

The community needs to act in concert, interact effectively, instantly. Gig-G is a precedent-setting private and public partnership designed to connect the Greensboro and Triad business community via downtown Gig-G Open Access Model fiber optic network and revolutionize the ways business, government and nonprofit organizations interact.

The Gig-G Open Access Model fiber optic network makes practical sense for Greensboro by keeping our money in our local community and away from giant telecoms. It creates jobs and connects schools to the world via the internet without breaking the budgets. And it takes control out of the hands of distant corporate executives and puts control into the hands of local residents and businesses. It creates real competition and real choices where the private sector has not.

3

We need to develop our businesses. The Gig-G Open Access Model has an economic development model based on proven entrepreneurial and corporate business growth strategies. Being proactive, instead of waiting for some telecommunications giant to build a fiber optic network in Greensboro, we (Gig-G and 200 other community leaders who have seen the plan) have decided to build our own network and invite the internet service providers (ISP) to come onto our network and PAY US to provide internet services to our community. This is at the core of the Gig-G plan.

We need to use our assets. Once we light up and build this fiber optic network it will become a real, practical asset and we can say to ATT, Time Warner or to any ISP - if you want to deliver Gigabit to Greensboro, you don't have to do all the work to put the network in place, and you can come onto our network and use those facilities you do not already have.

This creates a couple of unique things for Greensboro: It creates a community asset (our own network) that we can protect and decide what policies on the network are best for our community such as: how fast the speeds are, and how much an ISP can charge; this creates a revenue stream where the ISP pays the [15-501c Gig-G Social Entrepreneurship Fund](#) to be on the community network. Gig-G re-invests these revenues directly back into the local community in the form of funding or loans for entrepreneurship, grants for quality of life projects and downtown economic development and acceleration, or direct job creation activities associated with high-speed applications. This innovative social entrepreneurial initiative funds itself to directly allow the community to do more things and grow in more ways.

So this answers the following questions: 1). How do you get Gigabit internet speeds to Greensboro? 2). How do you generate a self-sustainable business model that funds the health, growth and culture of the city, instead of just hoping someone brings Gigabit to us and we get nothing in return?

Leveraging Greensboro's Unique Strengths

1. UNCG fiber optic network loop possesses huge unused capacity (100 Gig+): an unknown unique and powerful city asset that the Gig team found, measured and assessed for use in this strategic plan.
2. Existing city owned traffic signal lights "dark" fiber optic conduit that enable Greensboro to immediately duplicate the UNCG fiber optic loop and connect the entire community. Another huge unique strategic find by Gig-G team.
3. \$4 million in unused 2007 city Infrastructure bonds potentially available for network build-out.
4. Recruitment of [North State Communications](#) (NSC) as Gig-G partner. NCS is has made a commitment to the Triad as a local/regional ISP, focused on expansion. They are also a fiber optic network expert having installed over \$60 million of fiber in last ten years who will enable Gig-G to deliver 5X the network coverage vs. market prices.
5. Identification and assessment of the Greenway Loop right of way to rapidly and cost efficiently build out an intersecting fiber network loop providing coverage to north central downtown accessing valuable business tenants.
6. Recruitment of Community (and potentially Bryan) Foundations as enabling partners with both funds and relationships to make this plan happen (Plan lunch funds identified).
7. Enlistment of local IT experts including entire Secure Designs technical team. Gig-G will also bring in a large number of local large enterprise IT professionals.
8. Existing Gateway Research Park super computers and ongoing internet security research programs.
9. NC A&T recognized as the lead university in the Historically Black College System and recently discovered extensive and growing partnership relationship with west coast technology companies and national non-profits who want to achieve the Gig-G objectives.
10. Gig-G Team already working with A&T and UNCG with Wayne Szafransky, Bryan Toney and Staton Noel on several key large projects listed in the Gig-G plan (this is just the beginning).
11. Joint School of Nanoscience and Nanoengineering that can be uniquely and aggressively leveraged to match young entrepreneurs with promising technologies.
12. Signed up over 200 city leaders and engaged passionate people onto the Gig-G team (and growing by the week).
13. For upside potential, Forbes has [Greensboro 12th on a list of places where people can make their mark.](#)
14. Major new downtown construction projects underway: Union Square Campus, Greensboro Performing Arts Center, Bellemeade Village and Hotel Complex

A young and thriving new community of entrepreneurial programs:

Greensboro (and the team) already help special initiatives: These include [Co//ab: New Coworking Space / Greensboro Partnership's Entrepreneur Connection HDQTR](#), [The Greensboro Partnership's Entrepreneur Connection: 1000 Ideas Programming](#) (link), and [The Triad Startup Lab Downtown Business Accelerator](#). In collaboration with all of these programs that have been designed to identify, connect, mentor and fund emerging entrepreneurial initiatives, we have support from the [Nussbaum Center for Entrepreneurship](#) to complete the ecosystem.

Our main projects: Gig-G Open Access Model fiber optic network will form a new [15-501c Gig-G Social Entrepreneurship Fund](#) non-profit corporation that will offer new “dark network” fiber to all internet service providers for an established “per connection” fee structure. The new network will be an “open access model” enabling all providers to reduce capital costs and increase speed to market. This will create an unprecedented self-sustaining and self-funding business model to help fund other Gig-G community ventures and partnerships.

The new fiber optic cable will enable business customers to save a target of 40% on current internet services while multiplying the speed by a 5x-10x factor, depending on what the users need.

This \$125,000 first project, to be funded from the SC2 Challenge Grant Award, will have revenues almost immediately from businesses downtown. The customer saves 40% from prior market rates, which the customer shares with Gig-G 50/50 as a charitable donation, the ISP gets the other 60%. At an average \$250 per month revenue from an initial base of 100 customers, Gig-G receives \$5,000 monthly in 2015 and payback by 2017. But growth in business customers is projected to be higher than that, to as many as 1000 customers in 2016 generating \$50,000 monthly for Gig-G. We plan to re-invest Gig-G revenue shares into the community in the form of funding or loans for entrepreneurship, grants for quality of life projects and downtown economic development and acceleration or direct job creation activities associated with high-speed applications.

UNCG Fiber Loop: In the first major project, Gig-G will lay fiber through the existing conduit space that spans the south of the city and intersects with downtown in several strategic locations. This will immediately “light up” the southern downtown Greensboro neighborhoods. This will be relatively low-cost but rapid and very high-performance fiber deployment of approximately 8 miles, given that the conduit exists and owned by UNCG. Two of the conduit tubes are completely empty and the other is just one third full of fiber. The Gig-G team will partner with NSC as both a vendor and true partner procuring fiber optic installation services below market rates.

Greenway Fiber Loop: Phase Two of this first project will continue with a \$150,000 expansion of the loop where we deploy fiber around the Greensboro Greenway. This expansion will have a more rapid payback because the 4.5 mile Greenway Fiber will touch more of north downtown, in vicinity to key office buildings.

Leadership Project: [Union Square Tele-Health Initiative](#)

The second project will capitalize on this new high speed network and additional downtown community assets, and develop a new innovative “community focused and executed TeleHealth healthcare model”. The UNCG School of Nursing, NCA&T School of Nursing and the GTCC School of Nursing will be sharing a collaborative Downtown Campus called [Union Square](#). This campus will be the center point of the Gig-G Open Access Model fiber optic network. Establishing new Tele-health curricula at the university, community college and certificate levels and training new tele-health workers while providing Greensboro with a high speed Internet community infrastructure for both workers and networked patients, will document improvements in community health while also reducing overall healthcare costs (Cone Health incurred \$244 million in unfunded healthcare costs in 2013). Union Square as a community asset is strategically positioned and aligned with the Gig-G network. Gig-G will act as a catalyst to combine the largest healthcare service provider in the region with the Union Campus Tele-health initiative. Robust community Telehealth services are in their very early stages in the US, and Greensboro will be the leader in this field. The Gig-G downtown startup accelerator will solicit young entrepreneurs from around the country that have ideas in TeleHealth, to execute those ideas in Greensboro through the resources provided by the Gig-G accelerator fund.

Leadership Project: Guilford County Schools Tele-Education Initiative

21st century learning models are needed to engage today's students and prepare them to become productive members of society. Gig-G teams will act as the catalyst by providing access to technology for the 21st century learning models that will result in increased achievement. The underserved communities will access the Gig-G Hi-speed network via WAN WiFi to each family in the community. This effort in schools will work in concert with Tele-health services in underserved neighborhoods. Gig-G will work with downtown startup accelerators to solicit young entrepreneurs (with a focus on minority entrepreneurs from around the country who have ideas in Tele-education and community development to execute those ideas in Greensboro through the resources provided by a planned Gig-G accelerator fund.

By significantly increasing Internet speeds (to gigabit) for selected Guilford County elementary schools, providing new mobile computer tablets and investing in curriculum, training and student supports, Gig-G will help Guilford County School's scale the personalized learning strategic initiative with a focus on turning around low performing schools.

More Leadership Projects: Tele-Media Initiatives and Multi-Media

Greensboro and Gig-G will grow vertical applications of high speed communications and multimedia content, as well as big-data processing. For example, TeleMedia: museums like the International Civil Rights Center, Children's Museum, Elsewhere, and importantly the Greensboro Performing Arts Center will be a huge user of high-speed multi-media.

The Measure of Success: Cash Flow from Customers, Number of Companies and Jobs Created

We will impact all the objective criteria of business development, income levels, poverty, and quality of life, by making services affordable at every level and encouraging job formation in all sectors. In particular, we seek to catalyze sustainable high-paying high-tech jobs by enabling innovative companies to grow in TeleHealth, TeleEducation, and TeleMedia, to name just a few burgeoning applications of high-speed communications and multi-media.

Gig-G is setting an aggressive jobs growth target of 3,000 over 3-5 years. This is primarily generated by growing existing companies and creating or bringing in new companies attracted by the buzz and new business inherent in using and providing high-speed products and services. This is also generated by re-investing a portion of service revenues generated from 1000 or more of the top 3000 bandwidth users among the current 24,000 businesses in Greensboro, and another 2000 service revenue customers among the smaller business prospects.

The multi-disciplinary team has unique deep experience creating entrepreneurial and venture jobs, and this fiber infrastructure play is even more transformative IF the right entrepreneurial and business applications are established, trained locally, turned into exponential growth opportunities, and encouraged to thrive in all Greensboro target clusters.

So each idea has downtown opportunities for developing more connections ideas such as the ICRC. A Spring-board into making other things happen. Generate returns to the public sector, including sales & property taxes. Projects should create direct or indirect benefits that translate to enhanced public sector revenues.

Implementing these ambitious and innovative initiatives, our non-profit Open Access and Business Acceleration leadership roles, we will seek to enhance the buzz locally about Greensboro being a competitive and attractive and "with it" place to work and prosper. We will help educate locally through advanced educational infrastructure, bring more technology talent and enthusiasm into the area, and catalyze more technology company formation, more technology employment and greater profitability for the many non-tech companies that need to stay competitive.

There will be jobs funded by Gig-G investment in low-cost fiber construction as we raise the \$1-4 million we anticipate spending on that infrastructure in the next two to three years. Early projects already underway and the buzz will get things in motion, much as has happened in Chattanooga. Much more importantly, the subsequent savings we create in providing high-speed data infrastructure can be re-invested in more jobs within those companies we assist, while a portion of those savings will be donated back to Gig-G to re-invest in the Community. (see projected Gig-G business model Section II).