



# WIRELESS GRAPH NETWORKING

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X MARKETS GROUP





## SUMMARY

Markets group (XMG) is a company that strives to bring high speed 5G, wireless broadband to communities in major cities such as New York and London while decreasing costs. XMG does this with the use of advanced software and hardware technologies. XMG was founded in 1999 and is based in New York, London and San Francisco. XMG is a cutting edge technology and research firm and is a system integrator for 5G by providing 5G based mobile cloud M2MI services, communication and data processing. It also specializes in robotics and automation solutions and works with technology and financial firms worldwide.

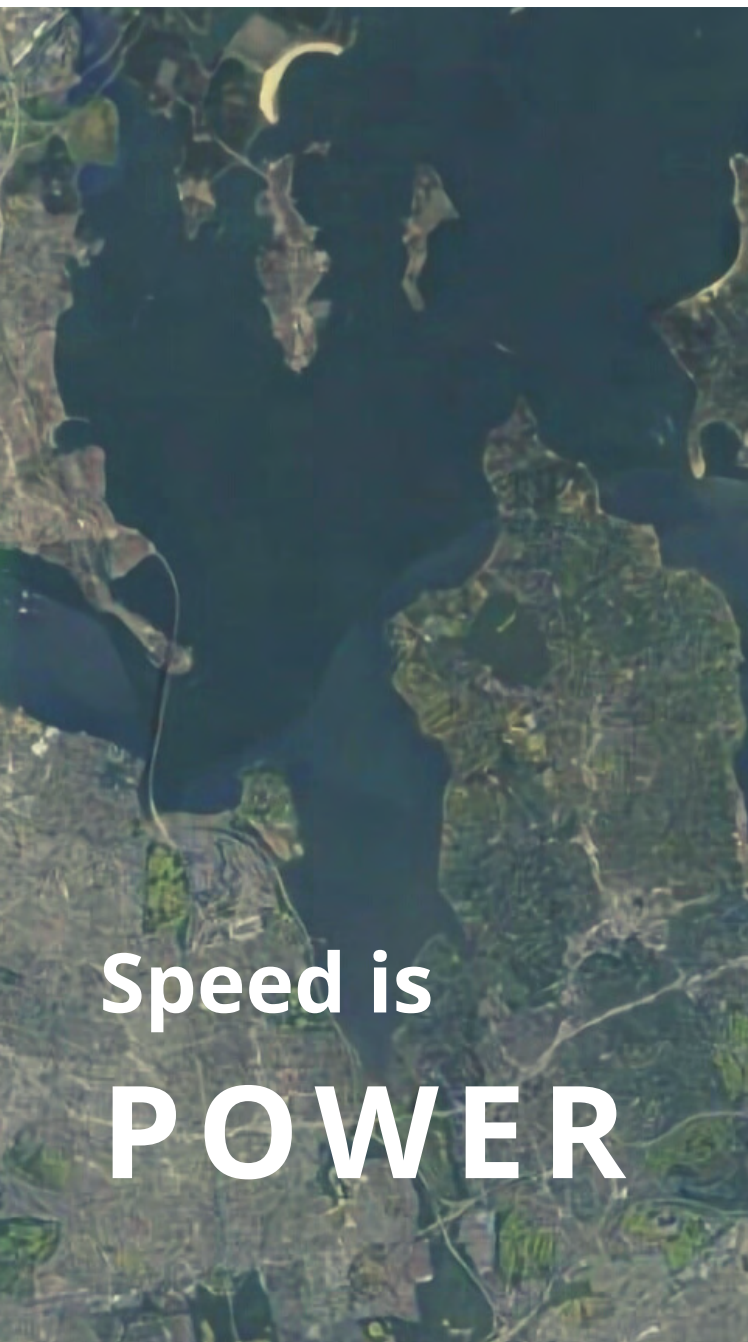
XMG provides solutions to financial firms. XMG provides PAAS (Platform as a service), IAAS (Infrastructure as a service) and EAAS (Execution as a service). All of XMG services can save time and money therefore XMG is devoted to give first class service across the entire trade life cycle.

XMG aims to make better internet connections permits stronger economic growth, educational achievement and better health results. The XMG aim is for lower income families to access faster internet connection allowing for better performance and helping them to establish financial stability. In the last 25 years, massive investments were made by businesses and governments to develop internet connection and accessibility.

XMG Provides Mobile Cloud for businesses where the information accessed through very secure 5G network and also provide landline based private cloud as a backup communication channel

An aerial photograph of a river winding through a lush green forest. The river is dark and reflects the surrounding trees. The forest is dense with various shades of green, indicating different types of vegetation. The overall scene is serene and natural.

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## 5G NETWORKING

5G is the fifth generation of mobile network succeeding 4G, 3G, 2G and 1G. 5G allows the connection of everything and everyone together including machines, objects and devices. 5G aims to improve data speeds, ultra-low latency, more reliability, massive network capacity, more availability. It will allow for higher performance and efficiency to connect new industries. With high speeds, superior reliability and negligible latency, 5G will expand the mobile ecosystem into new realms. 5G will impact every industry, making safer transportation, remote healthcare, precision agriculture, digitized logistics, and more — a reality.

Using 5G, XMG will be able to make millions and millions of information accessible to anyone with an internet connection. This will increase entertainment, connections and work for everyone.

Through a landmark 5G Economy study, we found that 5G's full economic effect will likely be spread across the globe by 2035, supporting a wide range of industries and potentially allowing up to \$13.1 trillion worth of goods and services.

This impact will be much greater than previous network generations like 4G. The development requirements of the new 5G network are also expanding beyond the traditional mobile networking players to industries such as the automotive industry.

The study also revealed that the 5G value chain (including OEMs, operators, content creators, app developers, and consumers) could alone support up to 22.8 million jobs, or more than one job for every person in Beijing, China.





## Cambium Networks

# NYC / EDC

## COLLABORATION WITH CAMBIUM NETWORKS AND NYCEDC

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XMG will like to partner with NYCEDC on the below major projects which will help NYCEDC and New York City greatly. This will create thousands of high paying technology jobs for New York City and help to develop the digital infrastructure for the low-income households and underdeveloped areas. Specifically, XMG is currently offering: The below projects are in the process of getting started and for the start of the coordination with NYCEDC, XMG will need very specific help, especially for the start where it will create at least 2500+ good paying, highly skilled and valued jobs after its main operations started.

XMG is in the process of bringing in an \$200m investment to New York city for deployment of its microwave based broadband services and mobile cloud. There is additional matching \$200m investment will come once the project shows some traction. This will create at least 2500+ highly skilled and paid jobs and will contribute greatly to the New York City economy and will make it one of the major hubs for the 5G and beyond, microwave-based technologies.

Just bringing in the \$200m investment currently in XMG's current form, will be too expensive to XMG and XMG is planning to bring in the investments during the 2-year period during which it will establish the technology hub for the 5G+ microwave technologies, broadband and cybersecurity services and also the mobile cloud and XMG is planning to work with NYCEDC as a long-term strategic partner for bringing in the \$400m investment into New York City for the next 4 years.



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## PLANNED WORK SO FAR IN NEW YORK CITY

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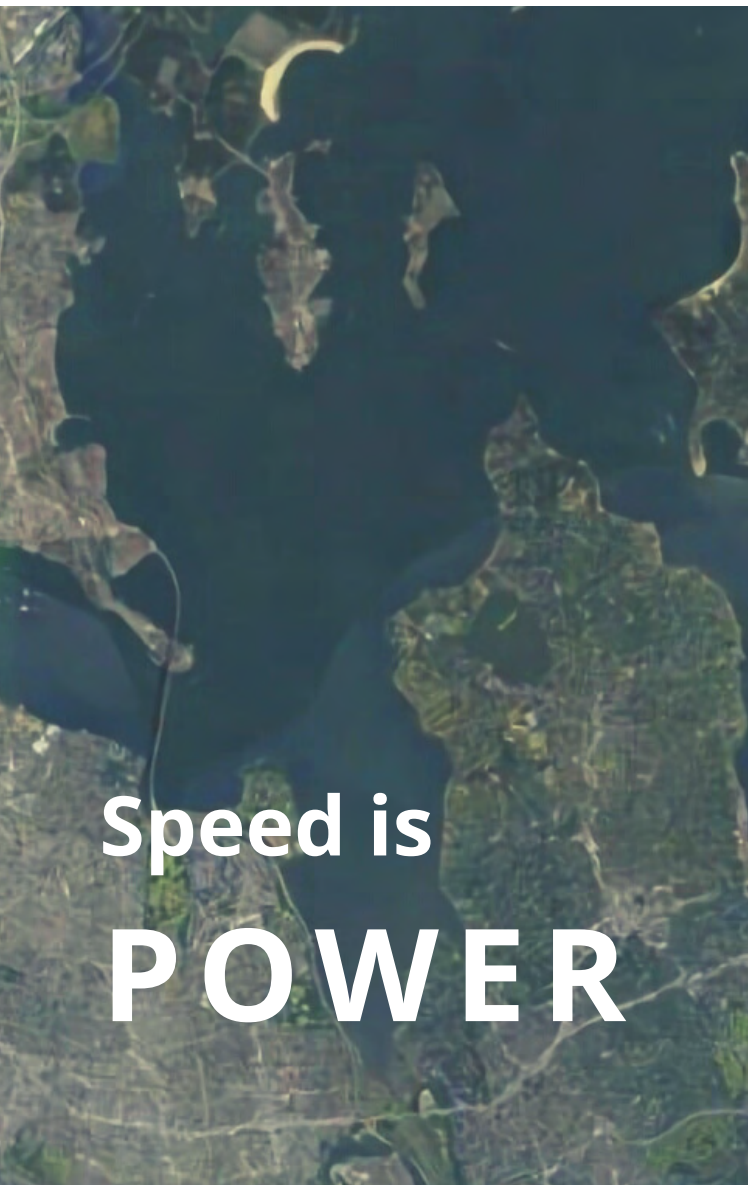
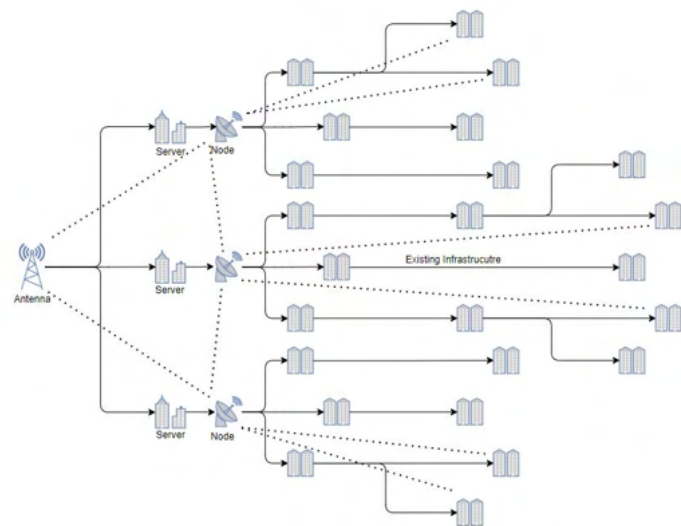
The below projects are in the process of getting started and for the start of the coordination with NYCEDC, XMG will need very specific help, especially for the start where it will create at least 2500+ good paying, highly skilled and valued jobs after its main operations have started.

- High throughput, wireless broadband access to the NYCHA residents within New York Metro
- Provide wireless, microwave-based city-wide emergency response system for firefighters, police and energy companies with real time updates of any bottleneck or troublesome area.
- Make New York City, the first metropolitan city in the world entirely with wireless broadband and provide all the connectivity seamlessly through the microwave technologies it developed.
- Help NYCEDC to build new 5G+ applications and roll out for the essential services via the super-fast and super reliable microwave links that XMG researched and developed over the years.
- Will create at least 2500+ highly skilled and paid jobs and will create an academy to train the underprivileged youth with the most valuable, highly paid tech skills.

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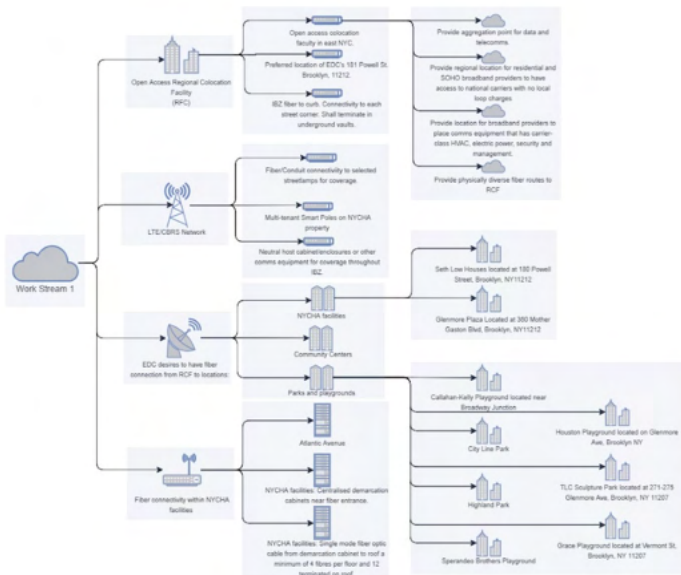
## NETWORKING MODEL



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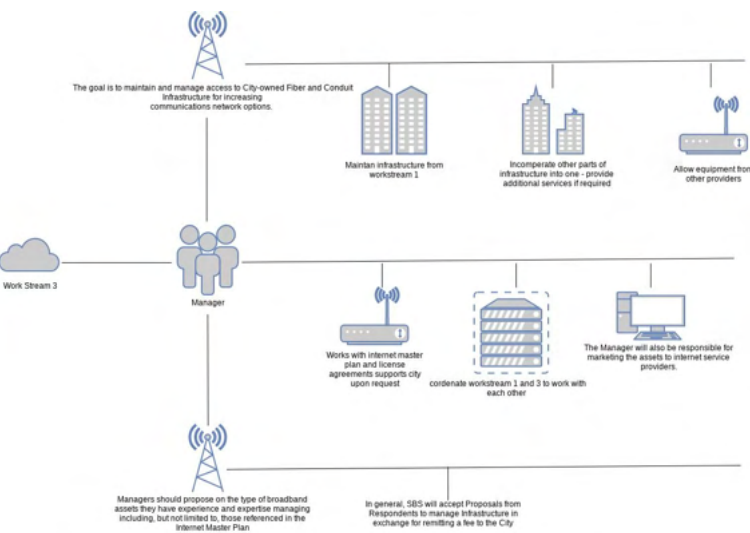
With point-to-point layer-2 tunnels in place between the BNG and subscriber CPEs, it is also possible for the service model to be the same as it is for other fixed access platforms in Magyar Telekom's portfolio. Once connected to the Terragraph network via a client node, the Mikrotik CPE establishes 2 pseudowires to the EoIPv6 tunnel terminator: one for HSI and one for IPTV. A PPPoE dialer in the CPE establishes connectivity to the BNG using pre-configured user credentials, thus 60GHz Backhaul (Client Node + Mesh Network) LAN CPE Ethernet Over IPv6 IP (IPTV) PPPoE (HSI) TR069 EoIPv6 Tunnels PPPoE HSI IPTV Dual Band WiFi enabling internet access. Simultaneously the DHCP client running over the other pseudowire acquires an IPv4 address, activating the IPTV service. CPE management & configuration runs over TR-069 (over HTTPS) which can either run on the HSI connection or can be run on a separate tunnel or PPPoE session.

# PLANNING PROCESS: WORK STREAM 1



XMG seeks to acquire existing broadband Infrastructure or contract for the construction of broadband Infrastructure that will be City-owned, which the City intends to make available on a non-exclusive basis to all appropriately authorized franchisees and broadband network operators. For purposes of this RFP, the term "Infrastructure" includes conduit or aerial pathways, ducts, optical fiber ("fiber"), networks of fiber, cables, antennas, fixed wireless connections, Wi-Fi, mobile wireless connections and/or other technologies that enable the transmission of broadband internet services as well as related equipment and structures pertaining to the support, location and provision of broadband services and equipment. The City is allocating City capital funding for Infrastructure with a value of at least fifty-thousand dollars (\$50,000) and a useful life greater than five (5) years. Any proposed Infrastructure must be eligible for capital funding, and the final determination of eligibility will be based on budget review. The cost to connect each household or business along with the timeline in which the work can be completed will be key evaluation criteria used to review Proposals for Work Stream 1.

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## PLANNING PROCESS: WORK STREAM 2

Work Stream 2 is also known as the 'manager'. It will act on the City's behalf to operate and maintain the Infrastructure from Work Stream 1 in good working condition, on terms as agreed to between the SBS and the Manager in order to provide access to the broadband network for use by service Providers.

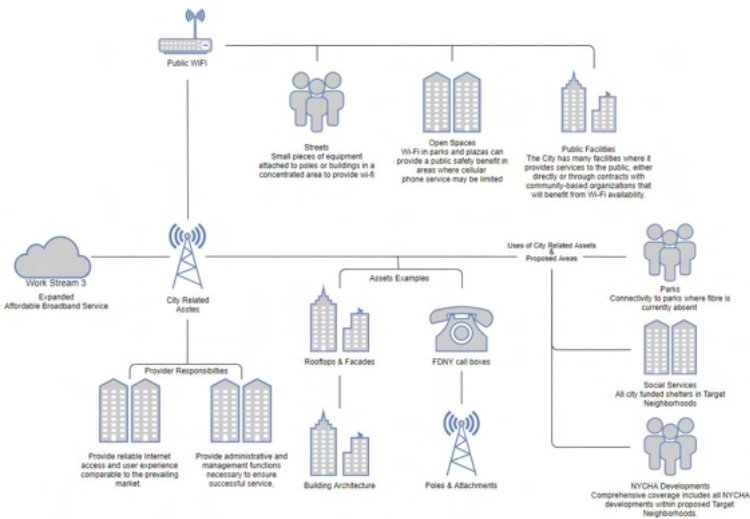
The Manager will not manage any Infrastructure from Work Stream 1 which relates to equipment placed on City-Related Assets unless separately authorized under Work Stream 3, but may be asked to support the coordinating and marketing of Providers on those City-Related Assets.

Managers will, at minimum, manage, maintain, repair, and operate the Infrastructure described in Work Stream 1 to ensure good working condition so that it may be made available to internet service providers.

The Manager should conduct frequent inspections and repair Infrastructure at its sole cost and expense to maintain the Infrastructure in good working condition.

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# PLANNING PROCESS: WORK STREAM 3

The Providers shall provide expanded, affordable, in-unit broadband services across the City, particularly in Target Neighbourhoods through utilizing the City-Related Assets. In addition to expanded, affordable, in-unit service, and business access, SBS seeks Proposals that complement the in-unit service and commercial service by providing common area and/or outdoor public Wi-Fi access.

SBS is seeking internet service providers to provide low-cost broadband service particularly for the Target Neighbourhoods, including the NYCHA developments and City-funded shelters within these neighbourhoods through utilizing the City-Related Assets.

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## ACTIVATION AND PHYSICAL INSTALLATION

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Connecting to the Wireless Access Broadband is as easy as 4 quick steps.

First of all, a free quote is needed to assess bandwidth needs and the location of a client. This is undertaken by a certified and qualified technician. This will include assessing needs and location.

Secondly, a site survey is in order. A dedicated team of surveyors will determine the best location to install Wireless Access Broadband equipment on a client's premises. Hardware includes antennas varying in sizes and forms which can be installed internally or externally.

Third step is the installation process. Completed in a maximum of 14 days, it will include setting up a point-to-point wireless link from the antenna on a client's premises to our nearest Wireless Access Broadband main antenna-- providing a guaranteed strong and stable signal connection.

The final step is the connection process. A team of engineers will help the client to connect their wireless-compatible devices to an Access Point, allowing lightning-fast, state-of-the-art online streaming.



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## OUTCOMES, NETWORK SUMMARY AND GOALS.

Using a systematic approach of setting up antennas and Wireless Access Broadband, it works alongside with New York City Housing Authority to extend coverage throughout New York within tightly-knit deadlines and educated guesses.

Set educated guesses will generate tasks to install antennas in specific parts of the city to step-by-step, within specified timelines, cover the entirety of the New York city neighborhood with Wireless Access Broadband in approximately 12 months.

With a variety of benefits from scaling and flexible bandwidth speeds, to dedicated and diverse services across the ethernet, MPLS IP-VPN and private lines.

All this will generate over 1000 jobs in New York alone in just under 3 years-- bringing great quantities of high-tech manufacturing sectors such as drone swarms to the city.

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