



**The City of
Worcester**

Department of Innovation and Technology
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RFI NO. 001

ISSUANCE DATE:

7/31/26

BUYER: Michael P. Hamel, Chief Information Officer

**AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER
REQUEST FOR INFORMATION**

NOTICE TO PROPOSERS

RFI TITLE: Fiber to the Premises Network / DoIT

REFER TO PAGE 3 FOR PROPOSAL SUBMISSION INFORMATION

This solicitation is a Request for Information only. It is not subject to the procurement requirements and procedures of MGL c. 30B (Uniform Procurement Act). The only terms and conditions of this procurement are those set forth within this RFI. The terms of the statute shall apply only at the discretion of the City.

General Conditions:

All proposals are subject to the terms, conditions and specifications herein set forth:

1. Scope: Provide industry information to the City for the design, installation, implementation and successful operation of fiber network connections across the entire area of the City of Worcester per the attached specifications.

Any prospective proposer requesting a change in or interpretation of existing specifications or terms and conditions must do so within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal opening date. All requests are to be in writing. No changes will be considered nor will any interpretation issue unless a request is in our hands within 5 days (Saturdays, Sundays, and Legal Holidays excluded) before scheduled proposal submission date.

Any inquiries related to this RFI must be submitted in writing to:

ContactDoIT@worcesterma.gov

Subject: Fiber to the Premises Network RFI

2. Nothing herein is intended to exclude any responsible Proposer or in any way restrain competition. All responsible Proposers are encouraged to submit proposals. The City encourages participation by Minority and Women Owned Business Enterprises (M/WBE).
3. All proposals and other documents relating to this RFI are subject to the public records provisions of the Commonwealth of Massachusetts and shall remain confidential until the time specified herein.
4. All material submitted by vendors becomes the property of the City. The City is under no obligations to return any of the material submitted by a vendor in response to this RFI.
5. The City reserves the right to accept or reject any or all proposals submitted and waive informalities and technicalities.
6. The City will review and analyze each proposal and reserve the right to interview selected proposers.
7. The Proposer must certify that no official or employee of the City of Worcester, Massachusetts, is pecuniarily interested in this proposal or in the contract which the proposer offers to execute or in expected profits to arise therefrom, unless there has been compliance with the provisions of G.L.C. 43 section 27, and that this proposal is made in good faith without fraud or collusion or connection with any other person submitting a proposal.
8. The vendor represents that no person other than bona fide employees working solely for the vendor, have been employed or retained to solicit or secure this agreement upon an arrangement or understanding for a commission, percentage, brokerage fee, gift or any other consideration contingent upon the award or making of this contract. For breach or violation of the representation, the City shall have the right to annul the contract

without liability, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage fee or other consideration.

SUBMISSION OF PROPOSALS

9. Proposals must be submitted according to the instructions below.

Proposals may be emailed to ContactDoIT@worcesterma.gov with the subject **RFI – Fiber to the Premises Response**. If proposals contain large files, submitters can request access to a secure file transfer service by emailing ContactDoIT@worcesterma.gov.

Proposals must be delivered no later than <u>5PM, Wednesday, September 2, 2026</u>. The City is not responsible for submittals not properly marked.

GIVE FULL NAMES AND RESIDENCES OF ALL PERSONS INTERESTED IN THE FOREGOING PROPOSAL.

(NOTICE: Give first and last name in full; in case of corporations, give corporate name and names of President, Treasurer, and Manager; and in case of firms give names of the individual members)

Name	Address	Zip Code
_____	_____	_____
_____	_____	_____
_____	_____	_____

KINDLY FURNISH THE FOLLOWING INFORMATION REGARDING BIDDER:

(1) If an Individual or Proprietorship

Name of Owner: _____

Business Address: _____

Zip Code _____ Telephone No. _____

Email _____

Home Address _____

Zip Code _____ Telephone No. _____

(2) If a Partnership, Full names and addresses of all partners

<u>Name</u>	<u>Address</u>	<u>Zip Code</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Business Address _____ Zip Code _____

Tel. No. _____

(3) If a Corporation

Full Legal Name: _____

State of Incorporation: _____ Qualified in Massachusetts? Yes _____ No _____

Principal Place of Business _____

Street

P.O. Box

City/Town

State

Zip

Email: _____

Telephone No. _____

Place of Business in Massachusetts _____

Street

P.O. Box

City/Town

State

Zip

Telephone No. _____

GIVE THE FOLLOWING INFORMATION REGARDING SURETY COMPANY

Full Legal Name of Surety Company _____

State of Incorporation _____ Admitted in Massachusetts? Yes _____ No _____

Principal Place of Business _____

Street

P.O. Box

City/Town

State

Zip

Place of Business in Massachusetts _____

Street

P.O. Box

City/Town

State

Zip

Telephone No. _____

Request for Information (RFI) - Fiber to the Premises Network

Important Note: *This Request for Information is issued solely to solicit input and innovative ideas from qualified vendors and stakeholders regarding city-wide broadband solutions. It is not a competitive bid or a commitment to award a contract, and no legally binding proposals are required at this stage. The information gathered through this RFI will support the City of Worcester (City) in understanding opportunities for a fiber-to-the-premises network. The City reserves the right to follow up with selected respondents for clarifications or additional information.*

1. Purpose and Background

The City of Worcester (City) is seeking information and ideas from industry stakeholders on how best to achieve a city-wide, high-speed Fiber-to-the-Premises (FTTP) network providing reliable, gigabit-class internet connectivity for all residents, businesses, municipal facilities, and community institutions. This Request for Information (RFI) is a preliminary step in the City's broadband initiative, intended to gather input on feasible technical solutions, deployment approaches, partnership models, and vendor capabilities.

The City's objective is to ensure that any eventual effort is well-informed by market realities and innovative approaches, and that the full range of vendor opportunities is understood before proceeding.

City & Project Context

Worcester, Massachusetts is the second-largest city in New England, with a diverse community of residents and a robust base of businesses, academic institutions, and public organizations. High-speed internet access is now recognized as essential infrastructure for economic growth, education, health care, public safety, and overall quality of life — akin to utilities like electricity, water, and roads. As documented in national broadband research, cities with widespread access to affordable, next-generation connectivity see benefits

including job creation, business innovation, improved education and healthcare outcomes, enhanced civic participation, and more resilient public services.

Worcester's leadership is committed to bridging gaps in digital access and ensuring our community can reap these benefits. Through this RFI, the City seeks expert input to evaluate how best to provide fiber or comparable broadband connections to all premises city-wide, leveraging vendor innovation and collaboration.

City of Worcester Characteristics:

- Population: ~211,000
- Land Area: 37.4 square miles
- Centerline Road Miles: 467
- Parcels: 42,450
- Housing Units: 80,369 (61.5% multi-family)

Project Goals and Vision

The City's vision for the broadband network focuses on the following key goals:

- **Universal High-Speed Coverage:** Provide a reliable, resilient multi-gigabit broadband network throughout all of Worcester, serving residents, businesses, schools, nonprofits, municipal facilities, and community anchor institutions with symmetrical gigabit speeds (1 Gbps or greater) and capacity to scale, backed by SLAs of at least 99.95% uptime.
- **Affordable Access for All:** Deliver cost-effective broadband options for all user groups – residential, small business, nonprofit, and institutional. An open-access architecture enabling multiple providers to serve customers over the same infrastructure is desirable.
- **Digital Inclusion & Equity:** Increase broadband adoption among low-income households, seniors, disadvantaged populations, and those facing barriers of cost, equipment, or awareness through low or no-cost service tiers, equipment distribution, digital literacy programs, and

programs to support multi-gigabit connectivity to anchor institutions such as schools, libraries, and public housing.

- **Economic Growth & Innovation:** Stimulate job creation, business innovation, education, and healthcare outcomes through next-generation connectivity. The network should position Worcester as a more attractive destination for businesses and entrepreneurs, and support remote work, learning, and improved public services.
 - **City Services & Smart City:** Bolster municipal operations through highly-reliable fiber connections to critical assets and support for Smart City applications.
 - **Technology Leadership & Future-Proofing:** Position Worcester as a broadband leader in Massachusetts and nationally through a scalable and forward-looking network, with clear upgrade paths to accommodate evolving standards and rising bandwidth demands without major overhauls.
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2. City Guiding Principles

To achieve the above goals, the City has established several guiding principles for a prospective broadband solution. Respondents should keep these in mind when crafting their responses:

- **City-Wide Coverage & Scalability:** The target service area is all 37.4 square miles of Worcester – encompassing every residential unit, business, and community institution. Complete city coverage is strongly desired.
- **Fiber-to-the-Premises vs. Alternative Technologies:** Worcester's preference is a 100% FTTP network delivering fiber optic cable directly to each premise for maximal performance. Any wireless or hybrid fiber/wireless elements, should offer security, capacity for future upgrades, and service levels (speed, reliability) comparable to full fiber. Wireless links should support gigabit-class speeds, strong security/encryption, low latency/jitter, and a path to increase capacity as

demand grows. Symmetrical bandwidth (equal upload/download speeds) is desirable.

- **Network Performance & Reliability:** The City expects a carrier-grade, highly reliable network. At minimum, the core infrastructure and service should meet a 99.95% availability SLA (Service Level Agreement). The network should be engineered for redundant paths and robust Layer 2/Layer 3 capabilities to prevent single points of failure. Clear SLA terms (coverage of uptime, latency/jitter, data integrity, customer support response times, etc.). Net neutrality principles are expected to be upheld, ensuring open, non-discriminatory access for all users and providers on the network.
- **Installation Approach:** Building fiber across an older city requires careful attention to construction impact. The City strongly prefers “least invasive” installation methods that minimize impact on roads, sidewalks, and other infrastructure. The City is open to considering various techniques that meet this end; however, directional boring and use of drain pipes will not be considered. The installation of shadow conduits to support future fiber optic and/or streetlight infrastructure is desirable.
- **City Support & Assets:** The City’s role in this project is that of a facilitator and partner, not a network operator or financier. No City funding or capital will be provided for network construction. The City is willing to consider in-kind support as is feasible to assist in making the initiative a success. Respondents are encouraged to suggest non-financial support or asset access the City could provide to enable the project (for example, location of network equipment in public spaces).
- **City Operations & Smart City Needs:** Worcester’s vision for this network includes tangible benefits for municipal operations and Smart City projects. We envision a network that improves the resilience and capabilities of government communications, such as dedicated and secure fiber and wireless connections to critical City sites (public safety headquarters, schools, libraries, water treatment plants, etc.), ring topologies for redundancy, and connectivity for Internet-of-Things (IoT) devices in the public way (traffic signals, streetlights, security cameras, environmental sensors, etc.).

- **Financial Sustainability & Business Model:** The City desires a financially sustainable broadband model that does not depend on City financial aid or funding.
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3. Information Requested from Respondents

In your response, please provide detailed information in the following areas. Relevant examples from your past experience, innovative ideas, and any conditions or assumptions necessary to make your solution viable should be noted. The City welcomes diverse perspectives, so feel free to propose multiple options or scenarios if applicable.

To facilitate clarity, you may structure your response according to the following categories:

A. Company Background & Experience

- **Organizational Information:** Briefly introduce your company (or partnership team). Include your company profile, years of experience in broadband or telecommunications, and an overview of relevant services and expertise.
- **Project Team & Key Personnel:** Describe the envisioned project team for Worcester. Identify any known key team members or subcontractors, their roles, and highlight their experience on similar broadband or FTTP deployments.
- **Relevant Experience:** Summarize your experience designing, building, operating, and maintaining high-speed broadband networks, especially city-wide fiber or telecommunications systems comparable to what Worcester envisions. Highlight previous projects, ideally with municipal or community networks, that demonstrate your ability to complete a project of this scope and scale successfully and on schedule. Provide references (especially public sector clients) for these projects if available. If you have not deployed a directly comparable FTTP network before, explain why your team's expertise, technology, and plan would still ensure a successful outcome in Worcester.

B. Approach to Technology & Network Design

- **Construction Methods:** Detail construction methods you would envision for a project in Worcester, including percentages of trenching vs. trenchless approaches, shadow duct or conduit provided, service connections and plans for restoration of streetscapes to equal or better condition after installation. Specify design approach with a focus on plan development. Provide information on how work zones would be managed (e.g., street access at the end of each workday, any anticipated night work on major roadways, and provisions for required police details during construction).
- **Technical Design Overview:** Detail the network architecture and technology you envision for a network in Worcester. Clearly state if your approach is 100% Fiber-to-the-Premises, or if it involves hybrid solutions (e.g., fiber + fixed wireless, other last-mile technologies) under certain conditions. If hybrid, describe the specific circumstances for deploying non-fiber technology (e.g., only in areas where fiber is physically impractical or extremely cost-prohibitive) and how those segments would deliver comparable performance to fiber connections. Please detail how you would ensure redundancy and resilience in the network design (e.g., fiber rings, backup systems) so that network uptime, packet delivery integrity, signal quality, and rapid fault recovery are guaranteed.
- **Throughput & Performance:** Provide detail around the upload/download speeds you would envision for Worcester and clarify whether these speeds are guaranteed or “best effort.” If not guaranteed, explain the expected average performance during peak usage and any minimum service thresholds you commit to. Also discuss upstream/downstream capacity limits of your chosen technology and the planned upgrade path to increase speeds/capacity over time.
- **Service Quality & SLA:** Outline the key Service Level Agreement parameters you would envision — e.g., target uptime ($\geq 99.95\%$), latency, jitter, packet loss, and customer support response times. Describe the redundancy and resilience features (fiber path diversity, backup power, etc.) that would ensure high reliability. Mention any unique technical features (e.g., advanced network management or

monitoring systems, security measures, etc.) that would help maintain service quality and quickly address outages or performance degradations.

- **Supported Services & Open Access:** Indicate the types of services the envisioned network would carry. Internet access for all end users is the primary focus, but could the infrastructure also support other services (VoIP/telephony, IP video, municipal data transport, etc.) concurrently? Are there any standard services or applications that FTTP networks usually support that the envisioned network would not support (e.g., limitations on real-time services, telehealth applications)? The City is interested in an open-access architecture if possible – meaning multiple providers can offer retail services over the same physical network. Describe if and how your design supports multi-provider access or dedicated wholesale capacity (e.g., virtual network slicing, dark fiber leasing).

C. Services & Pricing Models

- **Internet Service Offerings:** Describe the internet access plans and speeds you would envision providing over the network. At a minimum, a gigabit-speed tier for residential and business customers at launch is desired. Would you offer multiple speed tiers, and if so, what are the expected speed and price points? Can you provide any preliminary comparison to prevailing market rates or examples from other gigabit cities? The City is interested in ensuring prices are competitive or lower than those in other gigabit-served communities.
- **Other Services (Optional):** If your vision includes offering additional services (e.g., IPTV/video, VoIP telephone service, smart home services) alongside internet access, please describe them. These can be bundled or provided on a retail/wholesale basis. Note that certain services (like cable TV video franchises) might involve separate regulatory processes.
- **Affordability & Low-Cost Options:** Affordability is paramount. Outline any discounted or free service tiers you would envision being available for specific populations (such as a low-income broadband plan, a student household plan, a senior plan, etc.) and what

speeds/pricing those tiers might entail. The City is interested in offerings that provide residents with more affordable alternatives than exist today for basic broadband, and that lower the barrier for families who struggle to afford internet. Describe the structure of plans you would consider and how those compare elsewhere.

D. Service Coverage & Territory Plan

- **Geographic Coverage:** Provide detail around the envisioned service area coverage in Worcester. The City's aspiration is a ubiquitous network reaching all neighborhoods. If your approach does not initially cover 100% of the City, specify the coverage extent (with a map or description of included areas) and clearly identify any areas excluded or deferred. We request that no area be permanently left out based on income or demographic factors.
- **Phasing & Expansion:** If you envision a phased build-out, describe the phases (e.g., phase one covering X% of city or specific districts, subsequent phases expanding to full coverage). Explain any contingencies or triggers; for instance, if later phases would depend on hitting take-rate targets or securing additional funding, outline those conditions. Particularly address how phases or demand-driven expansion would be managed in low-income or hard-to-serve areas of the City; we want to ensure that such models will enhance digital inclusion rather than inadvertently widen gaps.
- **Timeline:** Provide an estimated deployment schedule for the envisioned network. The ideal scenario would achieve full city network build within 36 months of project start. Please share realistic timeframes for the envisioned network design, construction, and service rollout based on your experience. Include expected key milestones (e.g., network design completion, first customers online, 25% coverage achieved, full coverage) and any factors (seasonal constraints like winter weather, permitting lead times, resource availability, etc.) that could affect the schedule.

E. Digital Inclusion & Community Impact

- **Digital Inclusion Plan:** Elaborate on the strategy you would envision to ensure every Worcester resident can access and benefit from the new network. What specific Digital Inclusion programs or partnerships would you envision implementing? Some examples include:
 - Free or subsidized service tiers for eligible populations (e.g., low-income households, students qualifying for school lunch programs, seniors), or community Wi-Fi hotspots in underserved areas.
 - Affordability initiatives such as low-cost starter broadband packages, family discounts, or equipment rental assistance for those who cannot afford upfront costs (modems/routers).
 - Outreach and adoption programs to promote broadband uptake (e.g., working with local non-profits or City agencies on digital literacy training, advertising affordable options, helping distribute devices (computers, Wi-Fi hotspots) to those in need).
 - Updates and future-proofing commitment to adjust free/low-cost offerings over time so that even the most basic service remains sufficient for modern internet usage (for instance, revisiting the definition of “broadband” as technology advances). Ensuring installation costs or deposits do not hinder service adoption among renters or low-income families is also important.
 - Community anchor plans to provide no-cost or reduced cost gigabit connectivity to key community anchor institutions (e.g., public housing, schools, libraries, recreation centers, workforce training sites) to amplify educational and economic opportunities for underserved communities.
 - Creativity and grants to support these inclusion efforts. If you have experience leveraging government or philanthropic grants for digital inclusion, please share relevant examples or ideas.

F. Impact to City Services & Smart City Initiatives

- **Municipal Network Benefits:** If applicable, describe any specific benefits or services you envision that would impact municipal operations and technology initiatives. For example, does the proposed solution include any of the following:
 - Dedicated fiber capacity (dark fiber, lit services, IRU) connecting City buildings and facilities.
 - Resilient design for City connectivity, like a fiber ring topology linking critical municipal sites for redundancy.
 - Smart city infrastructure or wireless backhaul to support integrated streetlights, traffic signals, parking meters/signage, security cameras, environmental sensors, and other IoT devices across the city.
 - Unique services tailored for municipal use — for example, higher QoS channels for public safety, specialized networks for school district needs, or other above-and-beyond offerings that differentiate your solution.
 - Cost impacts, including opportunities to reduce or eliminate current operating expenses.

G. Business Model & Partnership Structure

- **Business Model:** Provide insight into the envisioned broadband service and business model, including whether you would operate as a retail ISP, a wholesale provider to third-party ISPs, an open-access platform, or a hybrid approach, and how this model would ensure reliable citywide service. Identify any existing or prospective partnerships with internet, cable, or telecom providers, and briefly explain how an open-access or multi-provider structure would function if applicable. Outline the ownership and funding model — such as private ownership, a joint venture, leasing, or a concession agreement and explain how financial risks, returns, and long-term operational sustainability would be managed.

- **Funding & Financial Assumptions:** Provide insight into how your envisioned solution would be financed and sustained over time. Confirm that capital funding for building the network would be your responsibility (since the City will not fund construction). Describe your approach to funding (e.g., private equity, debt financing, state/federal grants, revenue bonds). If applicable, discuss whether your model envisions any form of revenue sharing or leasing payments to the City for use of rights-of-way or assets. The City's primary interest is that the project be viable and not a net financial loss of municipal resources.
- **Network Investment:** Provide insight into the rough cost estimates or ranges for the envisioned network deployment and operation (e.g., total capital investment required, ongoing maintenance costs) and identify any external funding sources or anticipated financial support (grants, infrastructure programs, etc.) that might be pursued to supplement the project.
- **Other Considerations:** Identify any regulatory or contractual elements that would be critical to deploying the envisioned project in Worcester. Please clearly identify any specific City assets required for your solution and any proposed compensation or terms for their use.

H. Additional Ideas & Feedback

We invite any other input or creative suggestions that may not fall neatly into the above categories. This can include:

- Alternative business models or partnership structures that you believe would best suit Worcester's needs.
- Innovative technologies or approaches we may not have explicitly considered (new deployment methods, unique funding mechanisms, demand aggregation strategies, regulatory innovations, etc.).
- Feedback on the City's scope: If there are requirements or goals mentioned in this document that you feel could be refined to encourage more feasible or impactful proposals, please share your perspective. The City wishes to remain inclusive and open-minded, so constructive suggestions for improving any future efforts are welcome.

4. Conclusion and Next Steps

Through this RFI, the City of Worcester seeks to engage with experts and learn from the vendor community to chart the best path forward for a citywide fiber (or equivalent) broadband network. We hope the insights gathered will help us deliver a network that maximizes public benefit, attracts strong partners, and avoids unnecessary limitations. We appreciate your time and look forward to reviewing your ideas on how we can work together to bring reliable, affordable, and inclusive connectivity to all of Worcester.