

MassTech Collaborative

RFP for the Operation of the
MassBroadband123 Network

Bidders Conference Presentation

July 27, 2022







Bidders Conference Guidelines

- This Bidders Conference is being recorded.
- This presentation provides participants with an overview of Massachusetts Technology Collaborative (“MassTech”), Massachusetts Broadband Initiative (“MBI”), the MassBroadband123 Network (“Network”), and the Request for Proposal (“RFP”) process.
- Participants seeking further information about the Network are encouraged to access the data room*.
- The RFP supersedes this presentation in the event of inconsistency between the two.
- There will be an allotted time for Q&A at the end of this presentation.
- Questions asked today will be included in a Q&A document posted on MassTech’s website and COMMBUYS.
- Additional questions must be submitted electronically to proposals@masstech.org with the following subject line: “Questions – RFP No. 2023-MBI-01”. The initial round of questions are due on August 1, 2022, and answers will be posted by August 10, 2022. Answers to questions submitted after August 1 will be posted on a rolling basis. Respondents are required to check the website or COMMBUYS periodically for an updated Q&A document.

* Respondents should apply to MassTech at proposals@masstech.org to request access to the electronic data room

Contents

	MassTech and MBI Overview	4
	Network Overview	8
	RFP Overview	16
	Q&A	22

MassTech and MBI Overview

MassTech Overview (1 of 2)



- MassTech was created by statute ([Chapter 40J of the Massachusetts General Laws](#)) to serve as a public instrumentality of the Commonwealth of Massachusetts, commonly referred to as a “quasi-public authority”.
- MassTech and MBI each have a Board of Directors appointed by the Governor.
- As per its statute, “[t]he purpose of the [broadband] institute shall be to achieve the deployment of affordable and ubiquitous broadband access across the commonwealth.”
- MassTech is primarily funded through state sources – including annual appropriations included in the State Budget and capital authorizations included in the State Capital Investment Plan. MassTech also receives federal funding through several different federal programs.
- As a State entity, MassTech is subject to the Open Meeting Law and the Public Records Law.

MassTech Overview (2 of 2)

MassTech is composed of five divisions which are supported by a central office staff.



**MASSACHUSETTS
TECHNOLOGY
COLLABORATIVE**

OUR MISSION: | We strengthen the competitiveness of the tech and innovation economy by driving strategic investments, partnerships, and insights that harness the talent of Massachusetts.

 <p>THE INNOVATION INSTITUTE</p> <p>Mission:</p> <p><i>Innovation Economy</i></p>	 <p>MASSACHUSETTS CENTER for ADVANCED MANUFACTURING</p> <p>Mission:</p> <p><i>Advanced Manufacturing</i></p>	 <p>MASSACHUSETTS BROADBAND INSTITUTE</p> <p>Mission:</p> <p><i>Broadband</i></p>	 <p>MASSACHUSETTS eHEALTH INSTITUTE</p> <p>Mission:</p> <p><i>Digital Health and Caregiving</i></p>	 <p>MassCyberCenter</p> <p>Mission:</p> <p><i>Cybersecurity</i></p>
---	--	--	---	---

MBI's mission is to make affordable high-speed internet available to all homes, businesses, schools, libraries, medical facilities, government offices, and other public places across the Commonwealth. MBI works closely with key stakeholders to bridge the digital divide in Massachusetts.

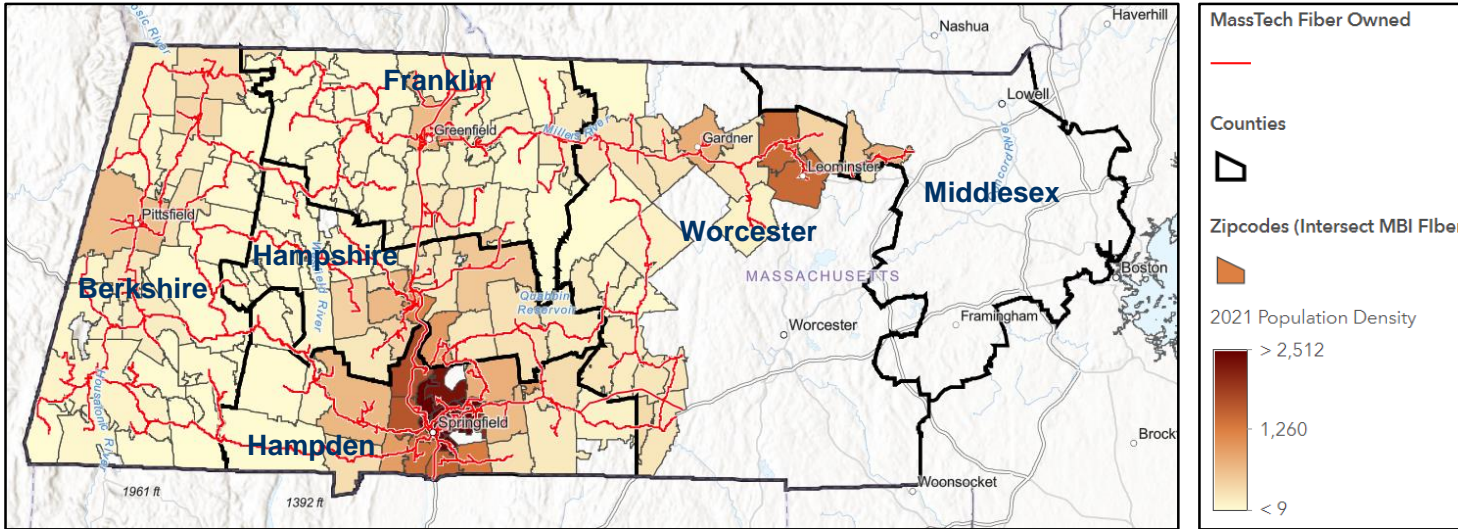
Regional Opportunities

- Berkshire County saw **\$1 billion in investment** in the three years leading up to the pandemic; there are coordinated efforts among economic development organizations to increase innovation and entrepreneurship in the Berkshires.
- Springfield forms an anchor of a **“Knowledge Corridor”**, extending into nearby Hartford, CT with one of the best-educated workforces in the nation, the second largest population in New England, as well as 29 colleges and universities.
- Public acknowledgement by policy makers, advocates, and economic development professionals that **targeted investment in infrastructure, including broadband, is central to growing and strengthening the region.**
- Commonwealth is in a position to enter a **new phase of its investments** to close the digital divide by closing remaining infrastructure gaps, expanding access to devices and digital literacy resources, and accelerating broadband adoption.
- **MBI, as the central broadband office of the Commonwealth,** is poised to administer over \$325M in federal funds for broadband improvements.
- A portion of the federal funds under the American Rescue Plan Act’s (ARPA) Capital Projects Fund and the Infrastructure Investment and Jobs Act (IIJA) will **focus on last mile programs that have the potential to drive demand for the Network**

With the procurement of a Network Operator, MassTech and MBI are seeking a long term partner to support with the implementation of the Commonwealth’s broadband goals and objectives.

Market – Macro Indicators

A breakdown of the Network’s macro indicators is provided below.



Market Indicators	Berkshire	Franklin	Hampden	Hampshire	Middlesex	Worcester	Total
Total MBI’s fiber network length (in miles)	288	212	213	160	13	161	1,047
Total Population (#) (2021)	127,886	73,456	446,395	154,171	15,989	189,380	1,007,277
Large Enterprises (> 250 employees) (#) (2021)	48	27	186	37	5	49	352
Small and Medium Enterprises (25-250 employees) (#) (2021)	600	300	1,699	578	69	722	3,968
Cell Towers (#) (2021)	92	63	300	72	9	124	660

Source: ESRI, US Census.

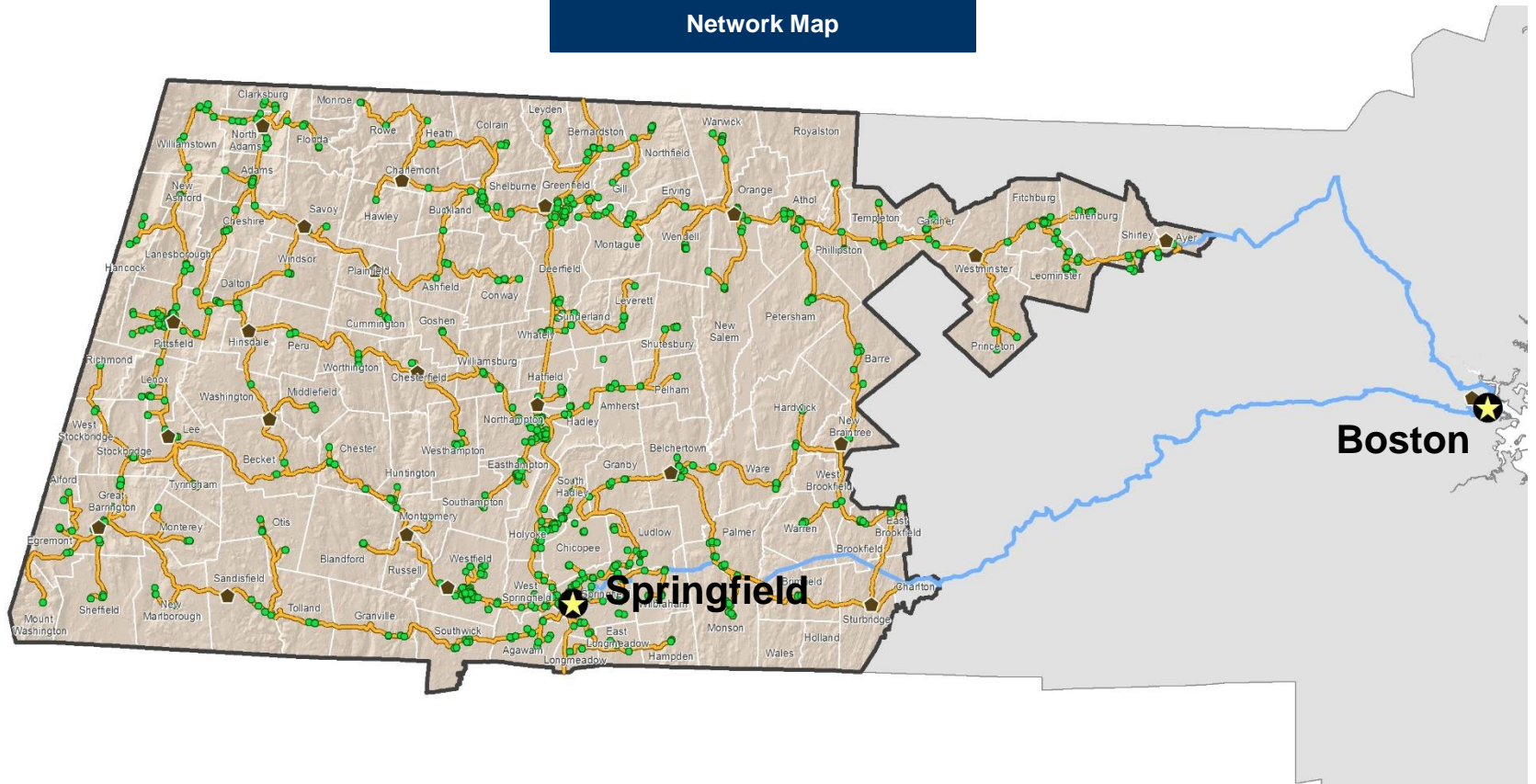
The Network covers a population of 1 million people and has an extensive, unique footprint in the Commonwealth with a range of FTTH/P and commercial business cases.







Network Overview

Network Overview (1 of 2)

The 1,200+ mile Network Covers more than 1/3 of the Commonwealth and connects 1,000+ Community Anchor Institutions (“CAIs”) and 120+ communities in Western and Central MA to high-speed internet.

Network Map



-  MassBroadband 123 Service Area
-  Internet Point of Presence
-  Network Points of Interconnection
-  Fiber-Optic Network
-  Existing Third Party Fiber, Crown Castle
-  Connected Community Anchor Institution



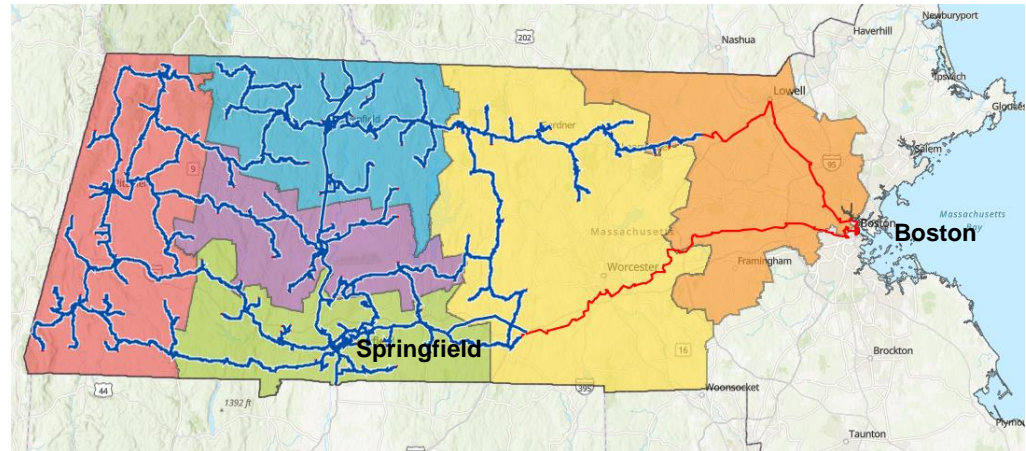
Network Overview (2 of 2)

The Network has a presence across six counties in the Commonwealth and provides a north-south transport gateway between Connecticut and Vermont along the I-91. It could also be used to facilitate an east-west connection between Massachusetts and New York.

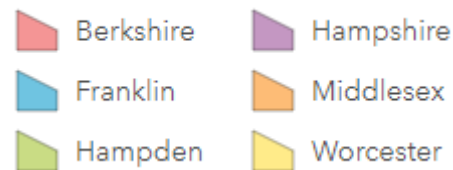
Network Overview

- **Open-access network** that connects communities in Western and Central MA to network service providers, major telecommunications carriers, and the greater internet.
- **Completed construction** by MassTech in **early 2014**, current operating agreement expires in August 2023.
- Provides connectivity to hundreds of **public facilities** across the Commonwealth including medical facilities, colleges, municipal buildings and schools, which are called CAIs.
- After initial construction, extended to provide connectivity to additional public and **private facilities**.
- Cable companies, telecommunications carriers, and service providers have purchased **higher value services**.

Network Map by County



Counties



MassTech Fiber Owned

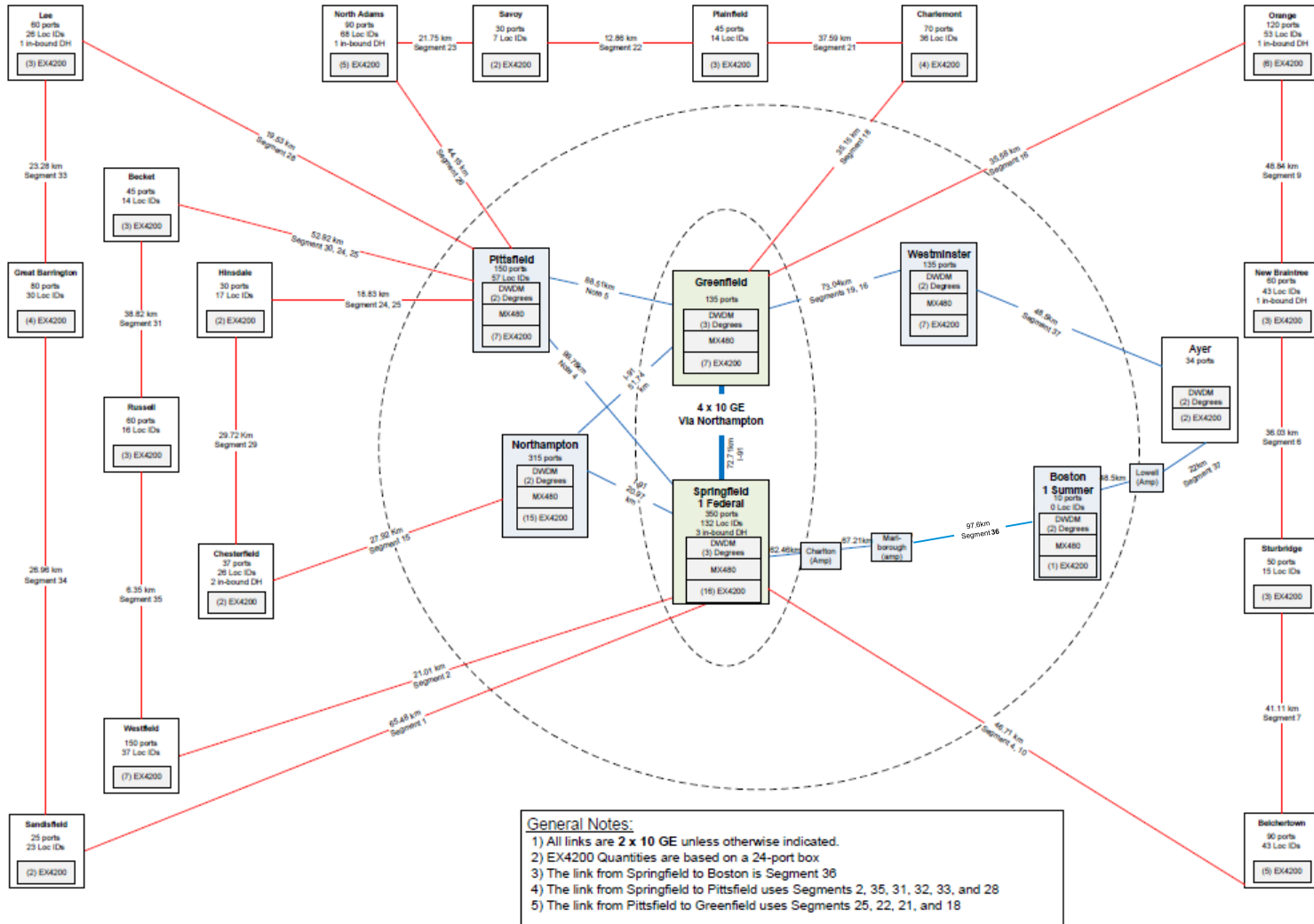


MassTech Fiber - Leased



Network Architecture (1 of 2)*

Strand counts on the backbone vary between 72 and 288 strands; spare strands are available. 20 G – 40 G backbone lit capacity between core and access layer POIs; utilization is under 50%. **Significant existing capacity to support customer acquisition and revenue growth.**



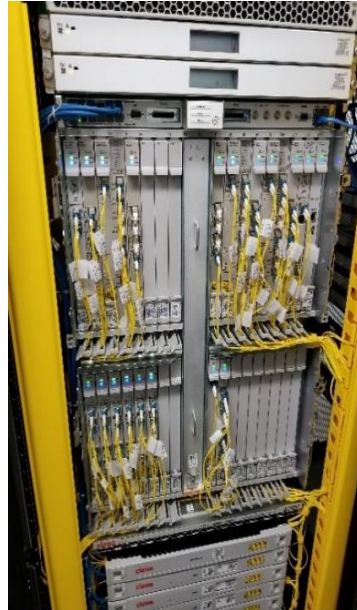
*This diagram is for presentation purposes only, higher resolution Network architecture diagrams are available in the data room.

Network Architecture (2 of 2)

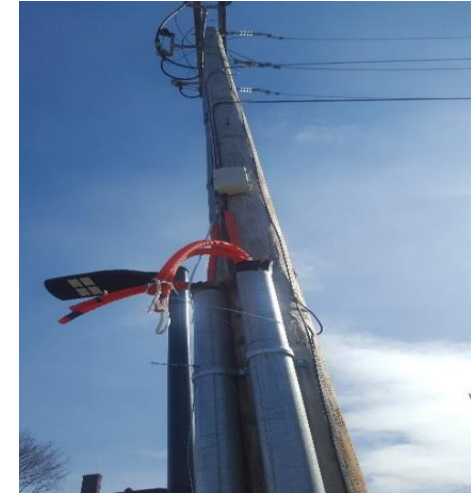
Pictures of the Network are provided below.



POI Network Equipment (1 of 3)



POI Network Equipment (3 of 3)



Fiber Optic Cables on Utility Pole



POI Network Equipment (2 of 3)



Fiber Optic Drop Cable Connecting to CAI Building

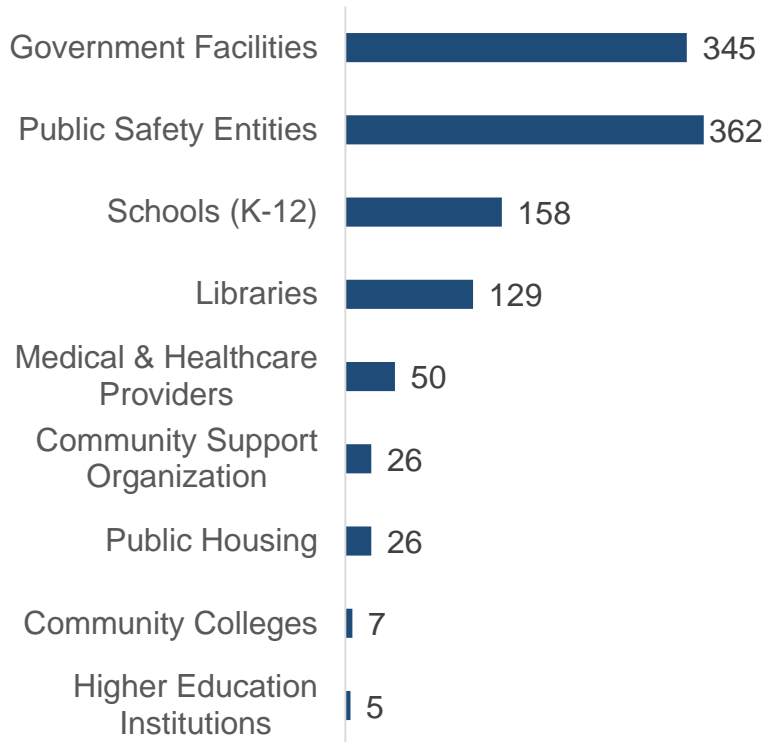


CAI Network Equipment

Current Network Connections and Customers – Key Facts*

A breakdown of key facts regarding Network connections and customers is provided below.

1,108 individual CAIs (682 CAI locations) are connected to the Network



Network Customers

- 22 **customers** are actively purchasing wholesale services from the network operator – 18 ISPs and 4 Commonwealth customers (state agencies).
- 1,061 **wholesale services** (5M, 10M, 100M, 1G, VPN, QoS, redundant circuits, dark fiber, etc.) actively being provided by the current network operator to its customers.
- 417 **CAI locations** (61% of connected CAI locations) are taking service from ISPs purchasing wholesale services from the network operator.
- 131 **non-CAI locations** (banks, commercial businesses) taking service from ISPs purchasing wholesale services from the network operator.

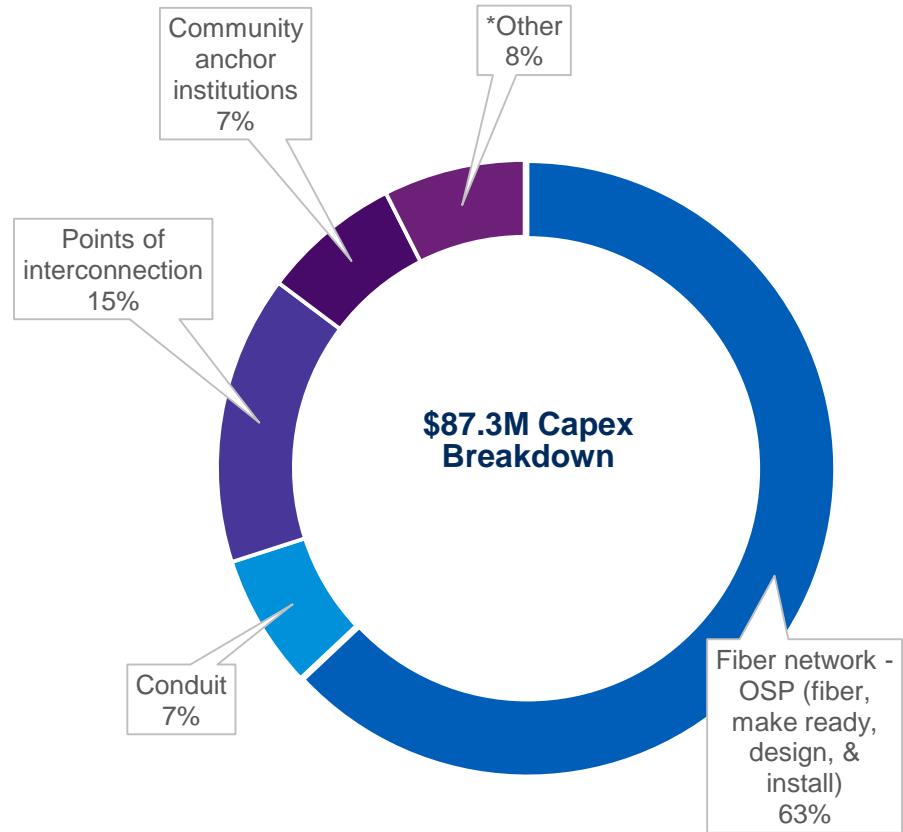
The current Network footprint presents an opportunity to grow the revenue base for an operator from both a wholesale and retail perspective.

*As of June 2022 - this is a summary of data which is available in the RFP data room.

**Wholesale services per the Network Operator website include bandwidth packages (5 Mbps – 10 Gbps), VPN membership, dark fiber, and network-network interface services.

Key Network Highlights

- **\$87.3M Capital Investment:** To date, \$87.3M of investment into the Network has been made by the Commonwealth and federal funding.
- **Additional Near-term Capital Investments:** Initial capacity upgrades to 100Gbps are underway in 2022; \$7M of capital for a one-time MassTech Network equipment refresh under new NOA.
- **\$4M+ Annual Wholesale Revenue:** The Network currently generates more than \$4M in annual revenue from wholesale services.
- **\$1.3M Annual Fixed Cost Covered by MassTech:** Annual fixed cost coverage of \$1.3M by MassTech which includes pole, conduit, POI, and railroad licenses, colocation/IRU fees, and Network insurance and pole license bonds.

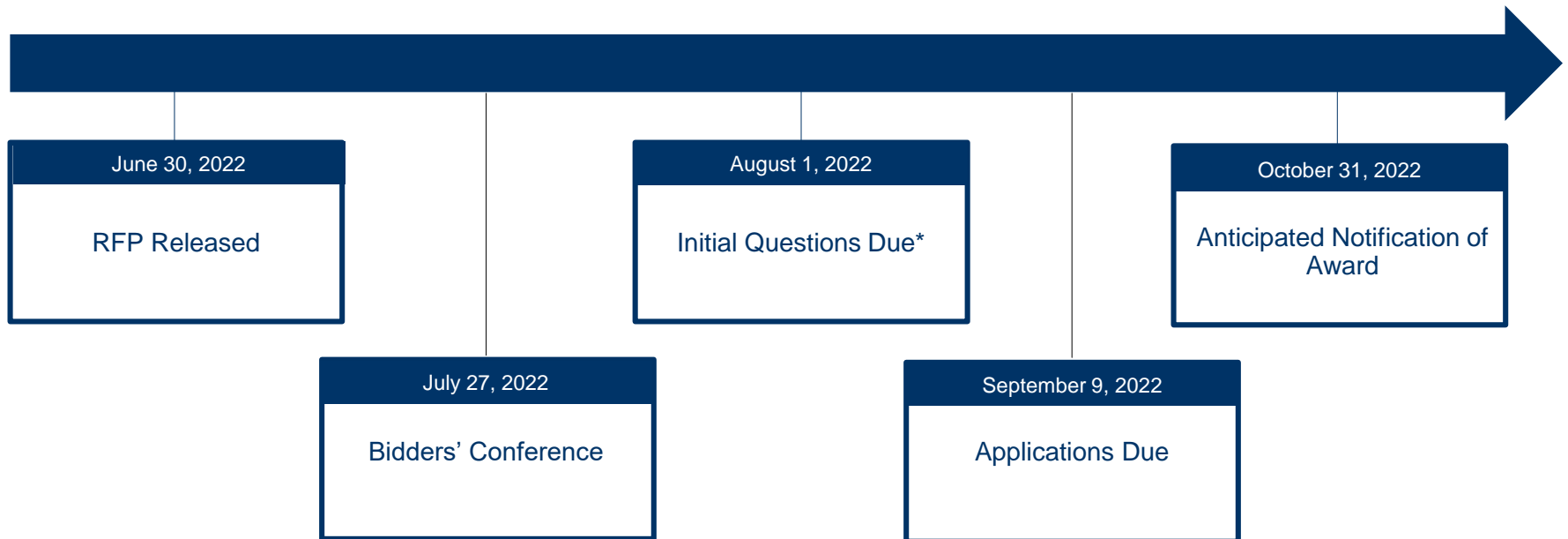


*Other: Consisting of poles, indefeasible right of use, other equipment, spares, and points of interconnection (equipment upgrades)

RFP Overview

Procurement Timeline

Key milestones for the procurement process are set out below.



*Initial questions will be answered by MassTech by 8/10. Additional questions may be submitted to MassTech on a rolling basis through 8/26.

Procurement Objectives

Through the issuance of this RFP, MassTech is looking to select a Network Operator to operate, manage, market, maintain and extend the Network.

With the selection of a Network Operator, MassTech aims to achieve the following core objectives:

- A** Improving broadband access conditions in the MassTech Network footprint.
- B** Ensuring that end-user customers are being offered affordable broadband service by the wholesale customers and by the Network Operator when providing retail services.
- C** Promoting robust broadband access for essential state and local governmental services including, without limitation, public safety, health and education.
- D** Promoting increased availability of, and competition for, broadband access and related services.

Key Network Operating Agreement Terms

Below is a high level overview of key terms as outlined in the RFP and Draft Network Operating Agreement (“NOA”).

NOA Duration

The NOA term will be **15 years with two five-year extensions** subject to mutual agreement between the parties.

Scope of Services

Wholesale + Retail Services: The Network Operator will be granted the authority to provide wholesale and retail services to the market.

Network Refresh: MassTech intends to contribute up to \$7M of capital for a one-time MassTech Network equipment refresh early in the NOA term.

Expansion Opportunity

Network Expansion: In order to scale the Network and increase the revenue base, the Network Operator will have the opportunity to finance, construct, and own Network Operator Fiber interconnected to the MassTech Network.

Payments

Payment Structure Flexibility: In exchange for the rights granted to the Network Operator and MassTech’s financial contributions to certain costs, the Respondent shall bid on payments to MassTech that it deems to be feasible and competitive. The Respondent has flexibility on the payment structure and may choose to propose any combination of an upfront payment, and/or guaranteed annual payment, and/or speculative annual revenue share in their bid.

Submission Requirements

The RFP process contains specific technical and financial submission requirements to ensure a clear evaluation process for Respondents and MassTech.

RFP Submission Requirements

Overall Proposal Requirements

Respondents must submit the following:

- Application Cover Sheet
- RFP Response
 - Technical Proposal
 - Price Proposal
- Authorized Application Signature and Acceptance Form
- Exceptions to the Draft NOA if Applicable
- Completed Excel Bid Sheet
- Officer's Certificate
- Microsoft Excel of the Respondent's Financial Model detailing financial plan for the MassTech Network

Technical Proposal

- **Business Qualifications** covering company history, organizational structure, operational experience and capacity, key personnel, financial capacity, marketing and sales experience, and references
- **Network Service Offerings and Customer Rate Strategy** covering different service offerings for dark fiber IRUs, wholesale and retail services, BTOP Non-Discrimination requirements, and network repairs
- **Transition Plan** including staffing, continuity of service, transition of existing customers and onboarding new customers

Price Proposal

- **Payment Proposal:** completed Bid Sheet
- **Financial Model:** addresses supporting assumptions, calculations, and projections that are aligned with the Business Plan and the Payments Proposal
- **Business Plan:** addresses network goals and objectives, shows a plan to maximize benefits and performance of Network
- **Proposed Mechanisms to Address Sustained Financial Nonperformance and Failure to Meet Material Components of the Business Plan:** Respondents to propose provisions for incorporation in the Network Operating Agreement

Evaluation Overview

Proposals will be scored out of 100 points according to the evaluation categories below. Proposed changes to the Draft NOA will also be considered. The selection of the preferred Respondent will be according to a Best Value determination for the Commonwealth.

Category	Criteria	Points
Technical Proposal		50
MassTech Network Service Offerings and Customer Rate Strategy	Overall quality and completeness of the approach: 1) Network operations and commercialization; 2) availability of equipment; 3) Meeting KPI's; 4) Complying with BTOP requirements; 5) developing and maintaining communication with MassTech	10
Business Qualifications and Experience	Degree of relevant experience and expertise: 1) Understanding of MassTech policy objectives; 2) network operations experience for wholesale and retail (customer references); 3) Massachusetts experience; 4) Financial stability; 5) Strength in cybersecurity practices; 6) Sales and marketing experience	30
Proposed Transition Plan	Considers transition capability: 1) Approach to ensuring an efficient and effective transition (availability); 2) Meeting the Core Transition Requirements; 3) overall plan timeline; 4) Transition experience; 5) Proposal for refunds / credits	10
Price Proposal		50
Payments Proposal	Highest combined value for: 1) Guaranteed upfront payment; 2) NPV of annual guaranteed revenue share; 3) NPV of annual speculative net revenue share payments	30
Business Plan	Overall quality of : 1) achieving policy objectives; 2) depth and quality of financial model assumptions; 3) range of services; 4) understanding of business and Network's footprint; 5) capital improvement plan; 6) addressing financial nonperformance	10
Financial Model		10

Proposed changes to the Draft NOA considered.



Best Value* for the Commonwealth

*Best Value” as “[t]he result of common sense Procurement decision-making consistent with the State’s Procurement Principles, which are to balance and support the achievement of: required outcomes, best quality economic value, timely performance, minimizing the burdens on administrative resources ,...”

Q&A