



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

July 2024 – Broadband Updates

Concord Broadband is pleased to share the following updates and information from the past month. Please do not hesitate to contact us at broadband@concordma.gov should you have any questions, concerns, or feedback.

Operations

CMLP has hired a second Network Engineer! The candidate will start on September 4, 2024, and we could not be more excited. There are several big projects we are eager to work on, including the upgrade of our GPON technology to XGS-PON.

We have submitted our biannual reporting for the FCC per the Broadband Data Collection (BDC) program. The reporting periods end 6/30 and 12/31. We work collaboratively with the Town's GIS department to get shapefiles that show our availability and customer accounts by speed in each census tract. This data eventually populates the National Broadband Map here: <https://broadbandmap.fcc.gov/home>

Our big municipal data network cutover is scheduled for September 7th. This project is the culmination of years of work with planning, procurement, and configuration. Several staff members will be on hand to conduct the cutover. The result will be faster, more secure, and more resilient. As a bonus, it will be more separated than ever from the Broadband network.

IP Link Meters

When CMLP moved to an Advanced Metering Infrastructure (AMI), they selected a vendor that could make use of our robust fiber network by connecting to deployed ONTs in the field. Doing this would add connectivity by augmenting existing gateways to allow for meter traffic to flow back to the main server. It has the advantage of being a backup if a gateway were to go down and also increase the speed of the data back to the server. This helps with outage notifications and allows customers to get more real-time data from their meter.

To make this work, though, it required engineering a new solution for connectivity and a staging server to collect that data using a different protocol than other meter data. Dale, our Broadband Manager, did a great job working through this project to allow connectivity. Our Metering Supervisor Annie, Senior Master Electrician Marty and other Customer Server staff helped test and coordinate the project with the vendor. Thank you to all who are making this a successful project!

Upcoming Maintenance

Our next scheduled maintenance will take place on Saturday, September 7, 2024. We do not expect any customer impact, but we are advertising this as a maintenance window in the unlikely event there is an impact to customers.

We will post more information about this and other maintenance windows here:

<https://concordma.gov/3144/Broadband-Maintenance>

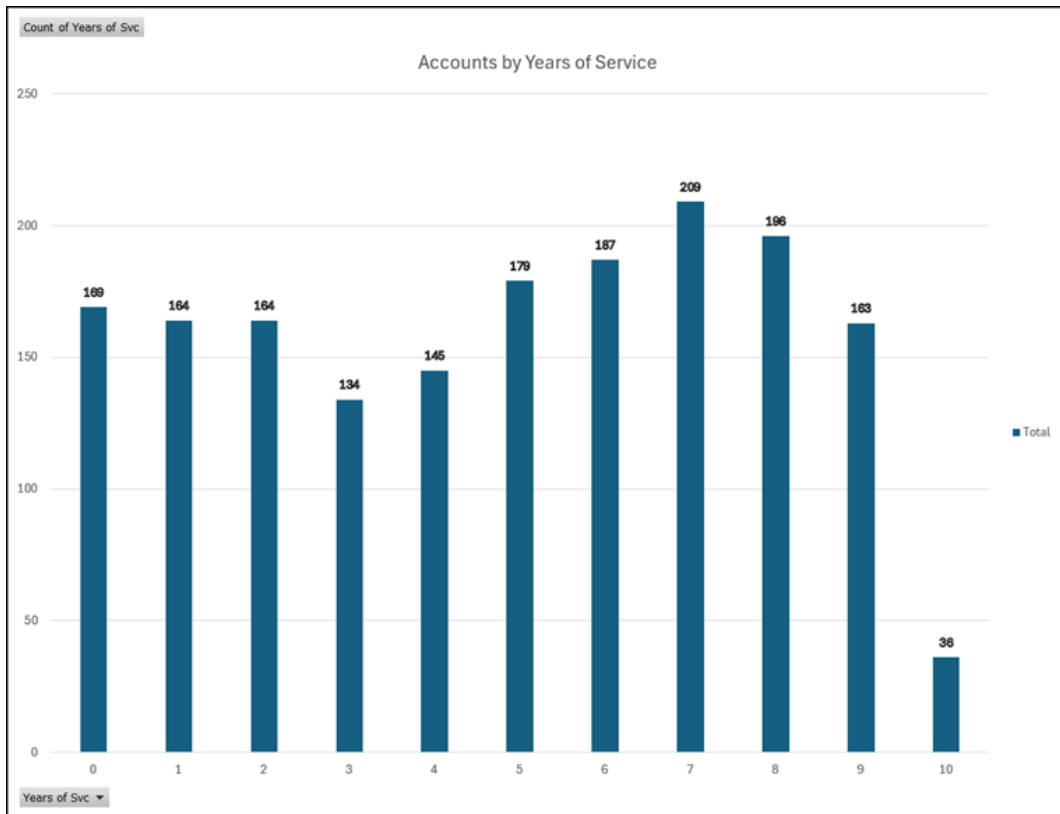
New Internet Service Provider

Concord Broadband has three ISPs for a total of 21GB/s of guaranteed service. To ensure adequate redundancy, we need to increase that speed to 30GB/s, and fortunately our Broadband Manager has found an excellent opportunity to save a little bit of money each month and allow that 30GB/s to burst up to 120GB/s. This will work nicely with our new XGS-PON offerings and allow us some enterprise customers that need a dedicated 5 or 10GB/s service.

The contract is in legal review, and once the order is complete, we expect service within 30 days. We also found an opportunity to, as the lessor, lease some dark fiber at the same time, which is positive.

Customers and their longevity

Concord Broadband customers are quite happy with their service. We capture data on why people leave, and it is incredibly rare to have customers leave for a reason other than a departure from their residence or business. We thought it would be interesting to take a look at customer longevity by years of active service. With 10 years in business, we have quite a lot of data!



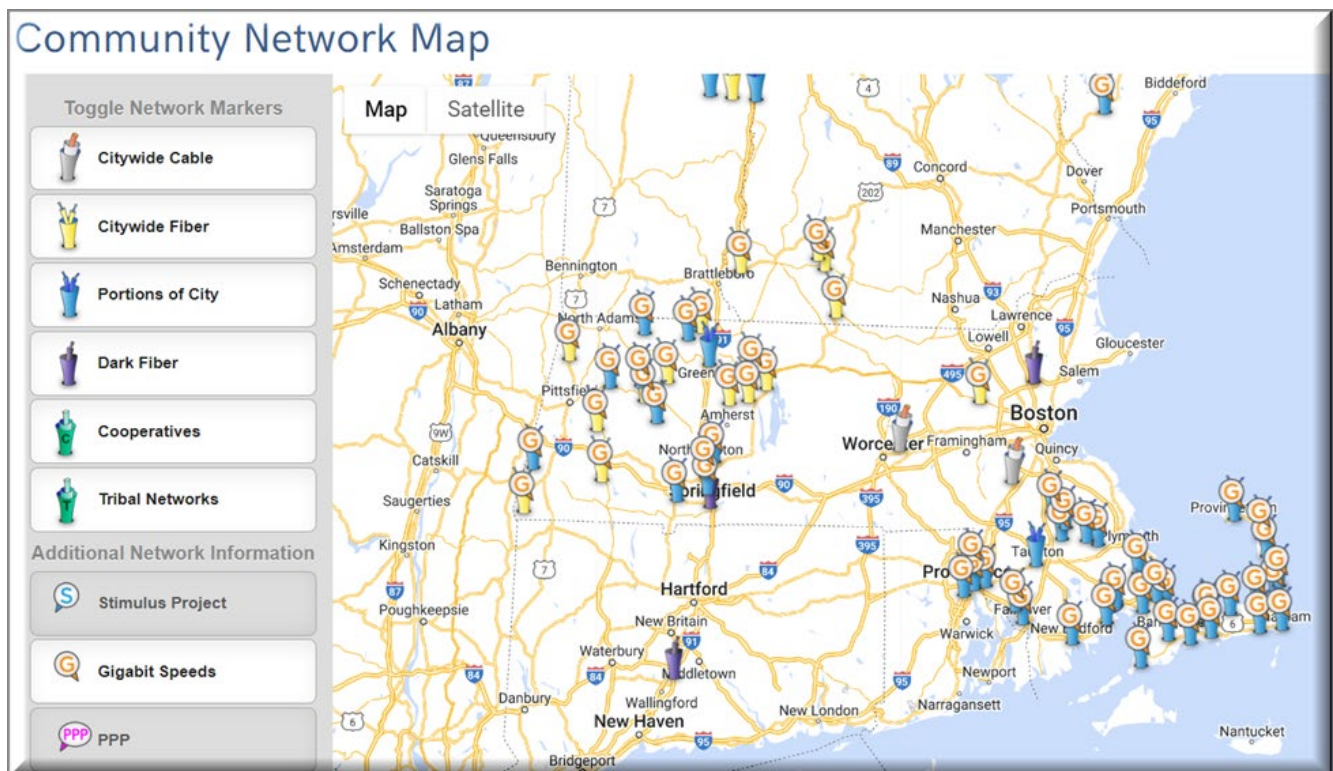
One interesting thing you'll see is the slowdown that occurred as a result of Covid. In the 3-4 years of service buckets, you'll see they are considerably lower than the surrounding years.

What do we do to keep these customers? We try to provide reliable and speedy internet service with excellent customer service. We haven't raised our rates ever, and we treat customer's privacy and data with the utmost respect. There are no data caps or hidden fees. Despite being a small operation, we continually get customers frustrated with alternatives. Recently we have had the opportunity to fix some problems for customers, and they have been extremely grateful for the work product of our staff.

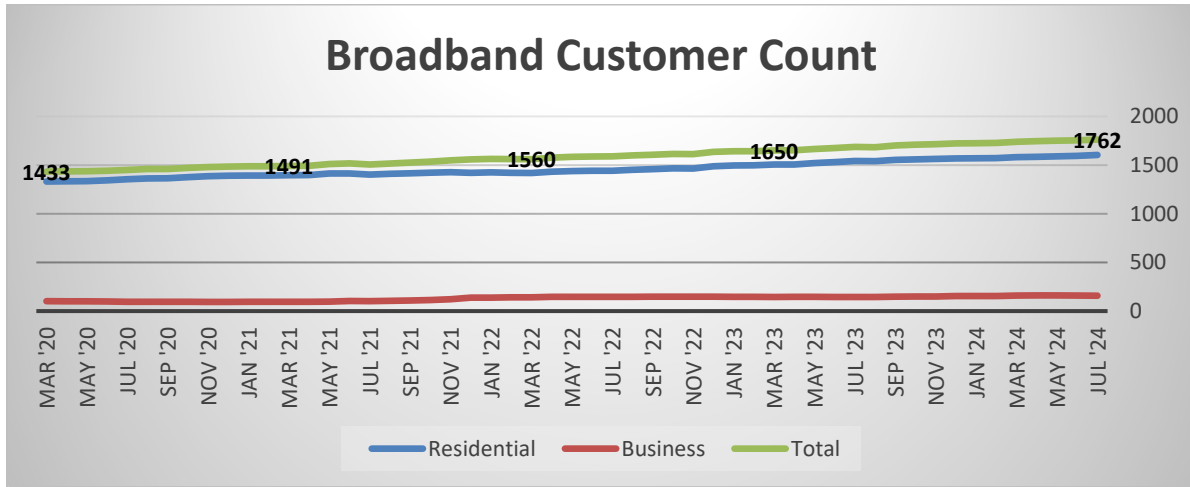
We thank all the customers who have their service with Concord Broadband!

Tracking Municipal Broadband in Massachusetts

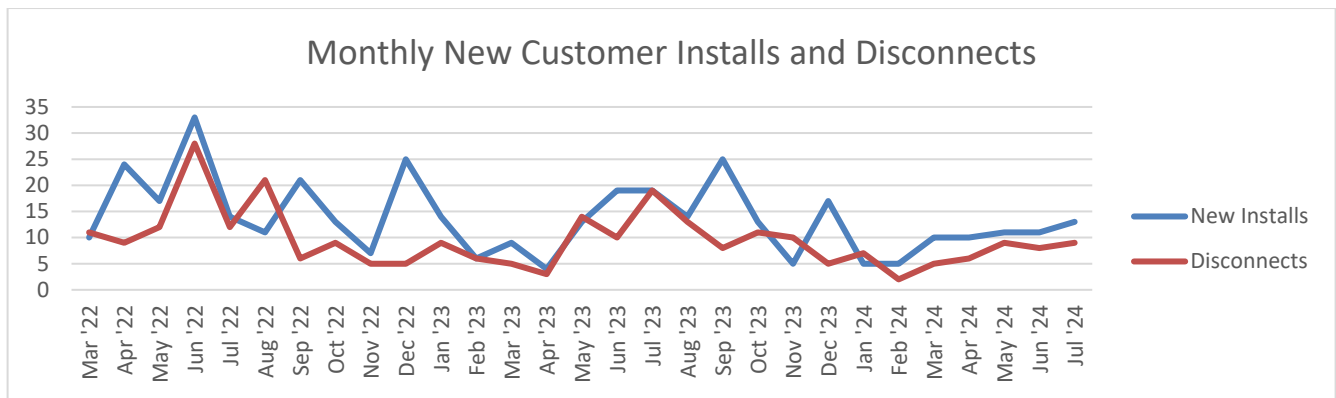
Community Networks, a project of the Institute for Local Self-Reliance, tracks municipal broadband networks. It's great news to see those numbers rising! The link is here: <https://communitynets.org/content/community-network-map>



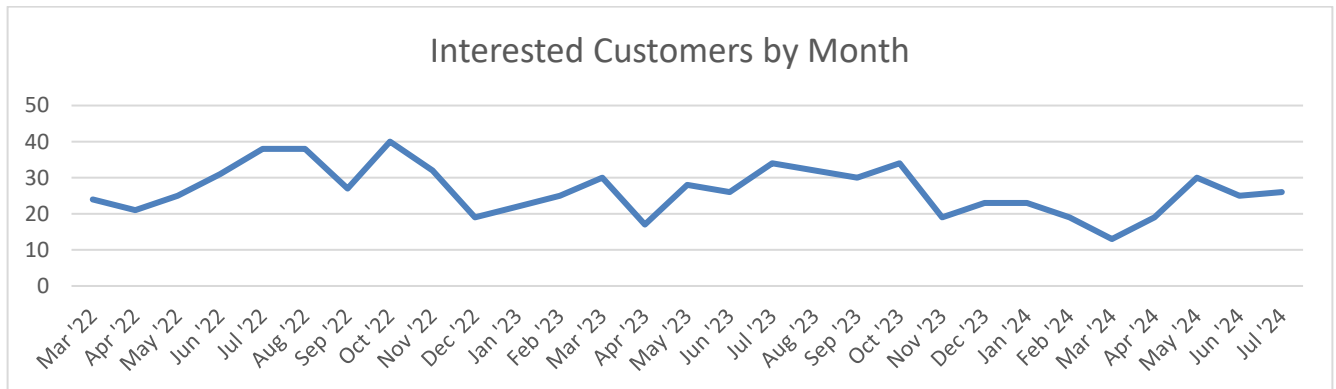
Monthly Metrics and Business Data



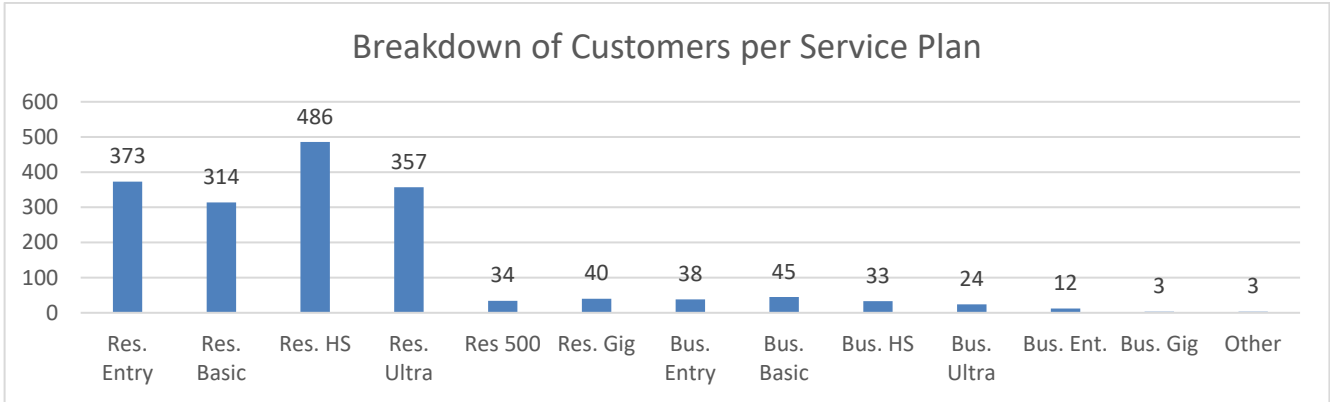
(Customer count: March 2020 – June 2024)



(The number of new installations and disconnects completed each month.)

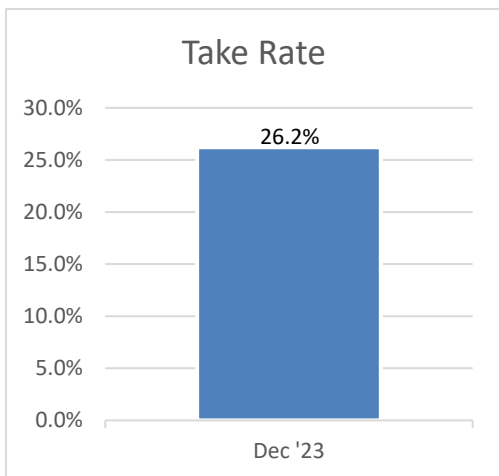
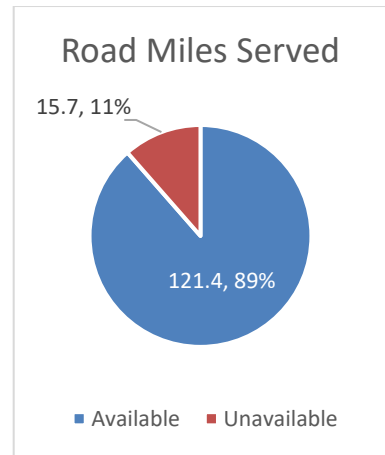
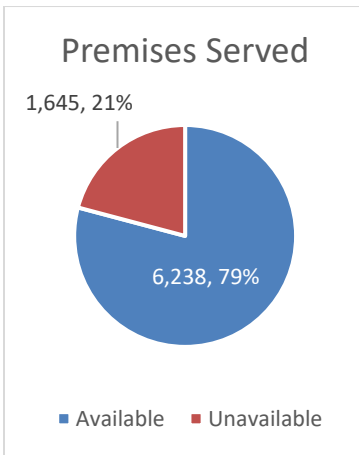
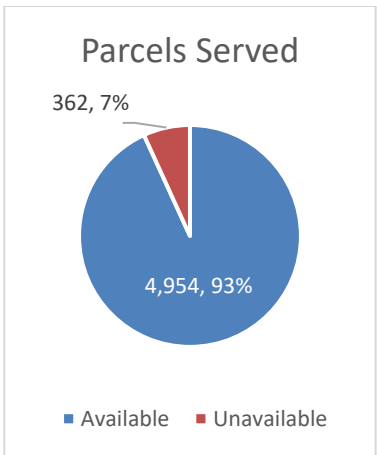


(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 7/31/2024.)

Other Metrics



(As of 12/1/2023)

Appendix

Fiber Broadband Completion Task Force's Draft Report Goals

| Goal | Type | Priority | Responsible Party | Additional Info. |
|---|--------|----------|--|---|
| Policies (p.39) | | | | |
| • Universal Access | Policy | Highest | Select Board/Town Meeting | |
| • Expansion outside current territory | Policy | Low | Select Board/Town Meeting | Conversations happening |
| • Support Economic Vitality, Sustainability, Equity & Inclusion | Policy | High | Select Board/Light Board/TM Economic Development | Rate subsidy planned |
| • Affordable Housing | Policy | Medium | Select Board/Housing Groups | Rate subsidy planned; working on Concord Housing Authority properties |
| • Public Safety | Policy | Medium | Select Board/Town Manager | |
| • Education | Policy | Medium | Select Board/School Dept. | |
| • Government Access (PEG) | Policy | Medium | Select Board/PAAC | |
| Recommended metrics for tracking (p.41) | | | | |
| • Parcels served | Metric | Medium | Town Staff/Light Board | Complete; will report quarterly |
| • Premises served | Metric | Medium | Town Staff/Light Board | Complete; will report quarterly |
| • Road miles served | Metric | Medium | Town Staff/Light Board | Complete; will report quarterly |
| • Subscribers | Metric | High | Town Staff/Light Board | Complete; will report monthly |
| • Take rate | Metric | Medium | Town Staff/Light Board | Complete; will report quarterly |
| • Churn | Metric | High | Town Staff/Light Board | Complete; included in monthly report |
| • Installations | Metric | Highest | Town Staff/Light Board | Complete; will report monthly |
| Governance (p.39) | | | | |
| • Track progress against completion | Metric | Highest | Light Board/Town Staff | Working on this |
| • Rate of return policy | Policy | High | Light Board/Town Staff | Working on this |
| • Financial goals with regular reporting | Policy | High | Light Board/FinCom | Working on this |
| • Retained earnings and reserve policy | Policy | High | Light Board/FinCom | Working on this |

| Goal | Type | Priority | Responsible Party | Additional Info. |
|---|------------|----------|----------------------------|--|
| Strategic Planning Goals (p.43) | | | | |
| • Marketing and growth | Metric | High | Light Board/Town Staff | Working on this |
| • Business return | Policy | High | Light Board/Town Staff | Working on this |
| Budgeting Process for Fiber Expansion (p.41) | | | | |
| • Expand to fill existing opportunities | Planning | High | Light Board/Town Staff | |
| • External funding sources | Research | Medium | Light Board/Town Staff | Working on this |
| • ARPA Relief Funds Allocation, incl. Lost Revenue | Finance | Highest | Select Board/Town Manager | Complete |
| • Review/Confirm Internal Loan Findings | Finance | Highest | Financial Audit Comm/Staff | Complete |
| • Review and Rescind PILOF to MMN | Finance | High | Select Board/Town Manager | Complete |
| Capital Planning Process (p.42) | | | | |
| • Review/Revise Debt financing schedule | Policy | Highest | Light Board/Town Staff | In progress; due to positive financial situation, anticipating being able to repay faster. |
| • Quantifying cost of expansion | Planning | Medium | Town Staff | Working on this |
| • How to fund expansion | Planning | Medium | Light Board/Town Staff | Working on this |
| • Revise/refine methods for computing ROI | Planning | Medium | Light Board/Town Staff | Working on this |
| Construction and Logistics (p.42) | | | | |
| • Vibratory plow – direct buried fiber cables | Operations | Medium | Town Staff | Working on this |
| • Revise/Refine Communication conduit construction standards and guidance | Policy | Medium | Town Staff | Working on this |
| • Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric | Planning | High | Town Staff | Working on this |