



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

February 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

Our Network Engineer has left Concord Broadband for international opportunities. Recruitment continues for (now) two Network Engineers with our Broadband Manager and Chief Technology Officer serving as acting Network Engineers. We continue to screen candidates and have also reached out to third parties to get quotes for managed services. There are current resources positioned today to assist with network monitoring and troubleshooting.

Broadband Technicians are starting the annual training program this month, starting with First Aid and CPR. Thank you to the Light Plant's Assistant Director, Joe Repoff, for his management of all training programs at CMLP.

Operations Cloud software

I'm pleased to announce that with the recent upgrade of all of our hardware, and after a lot of hard work completed by our Broadband Manager, we are now live with our Operations Cloud platform. This was a huge lift and a year-long goal that was achieved in early March.

There are several big benefits of this cloud platform.

First, it integrates with our existing Support Cloud platform, providing a much richer experience for the technicians trying to assist customers who have issues. Today, while our in-house and third-party support staff can perform basic diagnostic and troubleshooting functions, they cannot see detailed historical information like number of reboots or previous health levels or disconnections of the customer equipment.

Next, this platform will provide real-time and historical PON (Passive Optical Network) saturation information. Unlike some competitors, we believe that all customers should be able to achieve state speeds as close to 100% of the time as possible. Today, this is a manual exercise that is performed during customer onboarding, and it's incredibly time-consuming. With the faster speeds we offer, it's now mandatory for all new service. This program feature alone could save 15-20 staff hours each month.

Upcoming Maintenance

On February 23, 2024, Concord Broadband staff held a maintenance window from 1-5am to update all Calix hardware – both the OLTs at our data center and the ONTs in customer locations.

The maintenance went extraordinarily well due to the level of planning and coordination beforehand. Thank you to all staff who helped get this work done!

You can learn more about maintenance windows here:

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

Another benefit is the improved alarm capabilities. Today we get emails any time an ONT disappears from the network. As you can imagine, though, there are several reasons why ONTs go offline, many of which are innocuous and don't warrant further investigation. This new platform allows us to create custom alerts; for example, when 3 or more ONTs go offline within the span of 10 seconds. This type of alert is much more likely indicative of a problem and doesn't generate as much noise.

This new platform also comes with a real-time dynamic outage map. Today that function is performed manually during large outages. While it only takes 5-10 minutes, that delays our ability to communicate with users regarding the outage. And before the smart meters are fully deployed, it allows us to determine where small pockets of power outages remain after large areas are restored. The outage map also uses machine learning to infer network issues from data that is coming in.

And while on the subject of smart meters, there are functions and configuration changes that we can now push out system-wide without having to write complicated scripts or have professional services assist.

Those are just some of the benefits of this new application. We are happy to be working every day to improve the services we offer the customers of Concord Broadband!

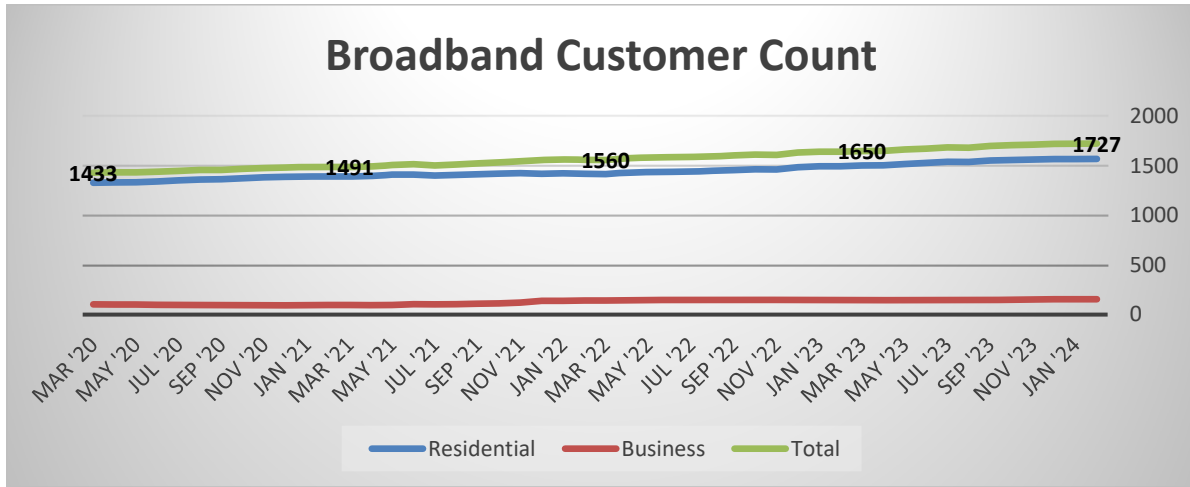
Affordable Connectivity Program

We are aware that the federal government is winding down the [Affordable Connectivity Program](#). This means that residents of Concord will no longer be able to receive a subsidy of up to \$30/month for their high-speed internet.

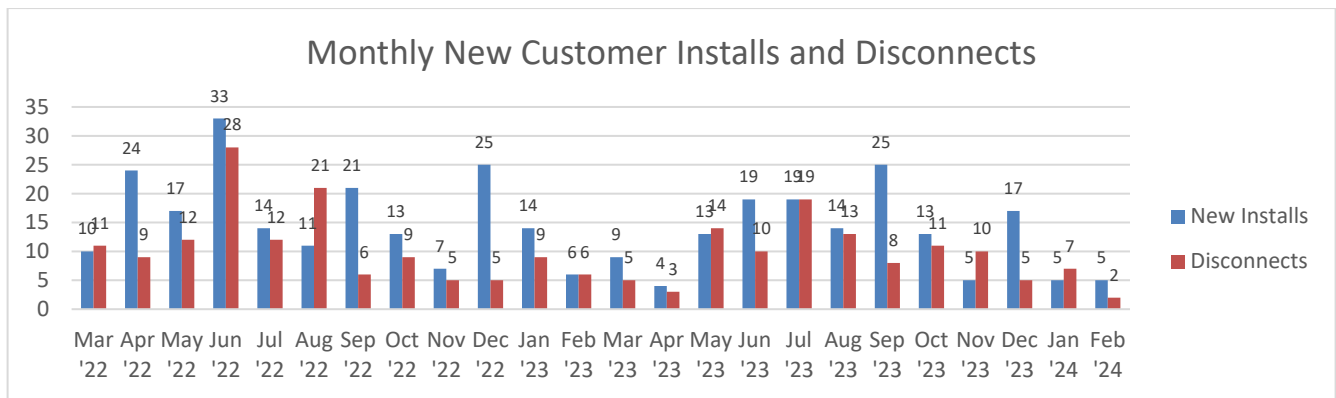
We are working with the Light Board to institute a \$20/month bill credit for all residential customers who are eligible for the Town's rate assistance program. This would be easier for customers and easier for staff to administer.

Stay tuned for more details!

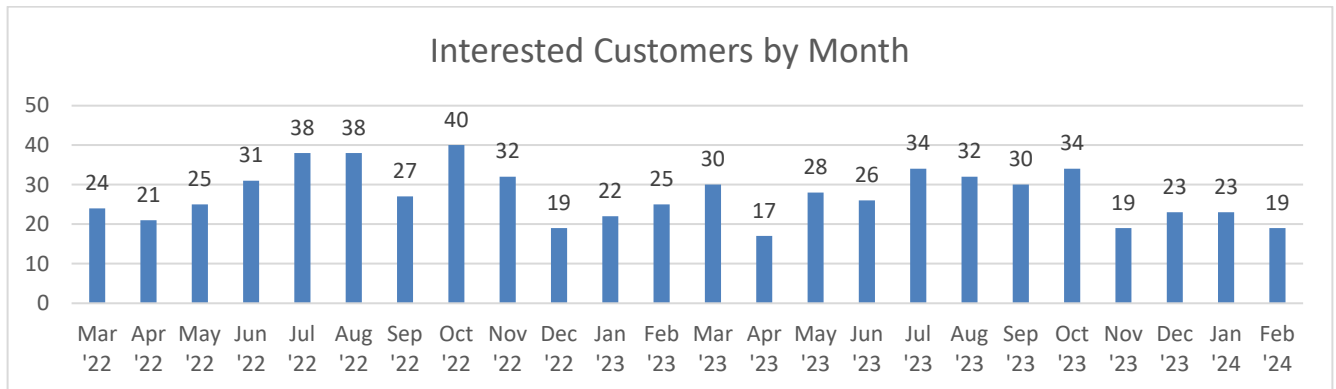
Monthly Metrics and Business Data



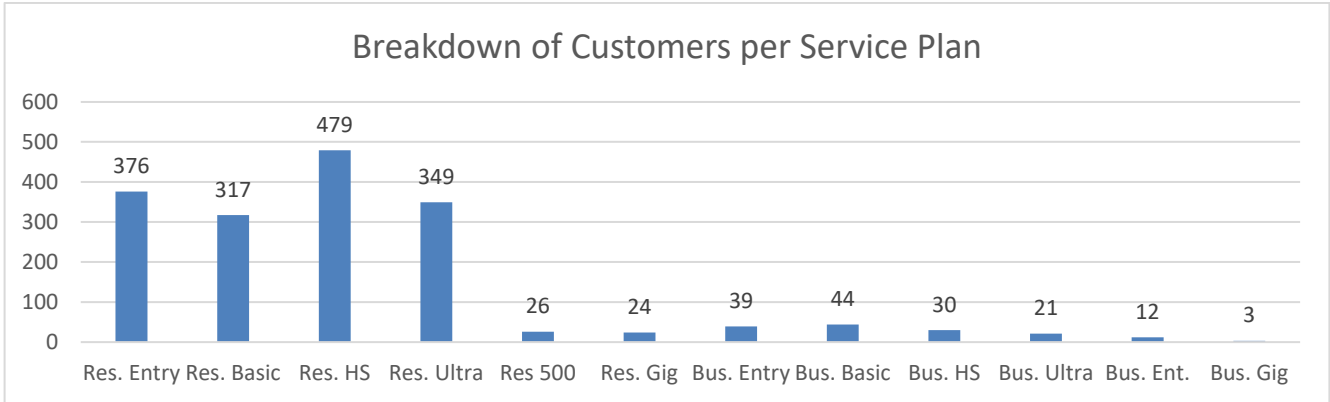
(Customer count: March 2020 – February 2024)



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

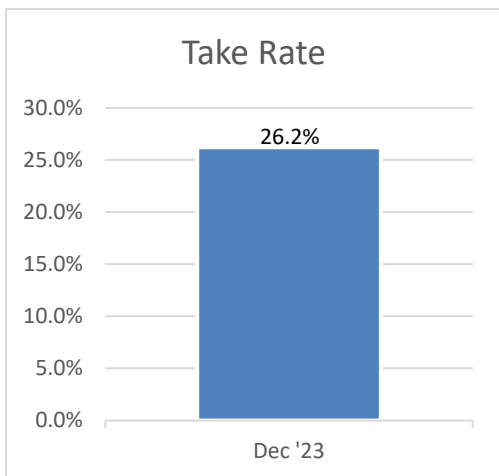
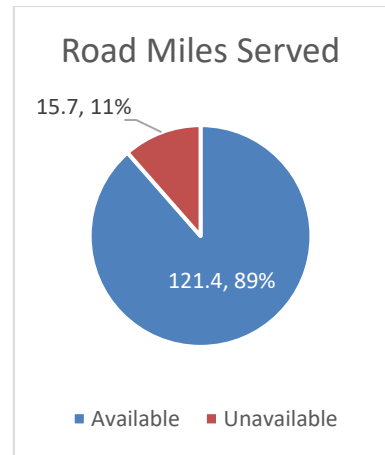
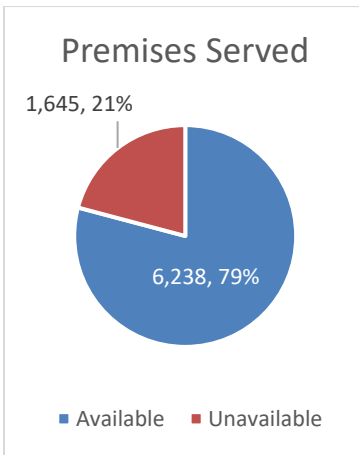
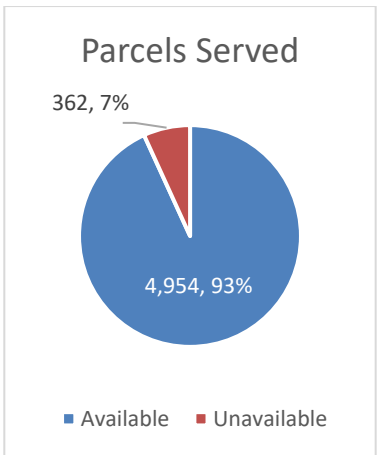


(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 1/31/2024.)

Quarterly 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)				
<ul style="list-style-type: none"> Universal Access 	Policy	Highest	Select Board/Town Meeting	
<ul style="list-style-type: none"> Expansion outside current territory 	Policy	Low	Select Board/Town Meeting	
<ul style="list-style-type: none"> Support Economic Vitality, Sustainability, Equity & Inclusion 	Policy	High	Select Board/Light Board/TM Economic Development	Rate subsidy planned
<ul style="list-style-type: none"> Affordable Housing 	Policy	Medium	Select Board/Housing Groups	Rate subsidy planned
<ul style="list-style-type: none"> Public Safety 	Policy	Medium	Select Board/Town Manager	
<ul style="list-style-type: none"> Education 	Policy	Medium	Select Board/School Dept.	
<ul style="list-style-type: none"> Government Access (PEG) 	Policy	Medium	Select Board/PAAC	
Recommended metrics for tracking (p.41)				
<ul style="list-style-type: none"> Parcels served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Premises served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Road miles served 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Subscribers 	Metric	High	Town Staff/Light Board	Complete; will report monthly
<ul style="list-style-type: none"> Take rate 	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
<ul style="list-style-type: none"> Churn 	Metric	High	Town Staff/Light Board	Complete; included in monthly report
<ul style="list-style-type: none"> Installations 	Metric	Highest	Town Staff/Light Board	Complete; will report monthly
Governance (p.39)				
<ul style="list-style-type: none"> Track progress against completion 	Metric	Highest	Light Board/Town Staff	We have been cleaning up the Master Address Table and will have something new to report soon. (11/2023)
<ul style="list-style-type: none"> Rate of return policy 	Policy	High	Light Board/Town Staff	
<ul style="list-style-type: none"> Financial goals with regular reporting 	Policy	High	Light Board/FinCom	
<ul style="list-style-type: none"> Retained earnings and reserve policy 	Policy	High	Light Board/FinCom	

Goal	Type	Priority	Responsible Party	Additional Info.
Strategic Planning Goals (p.43)				
• Marketing and growth	Metric	High	Light Board/Town Staff	
• 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	Working on this; do to positive financial situation, anticipating being able to repay faster than expected.
• 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	
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	
• Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric	Planning	High	Town Staff	Working on this

