Q3 FY24 Connections Update

10 April 2024

CHORUS

Q3 FY24 overview

> **Fibre connections (including non-address points and LFC areas) increased 12k (Q2 FY24: +11k) and now total 1,074,000***

> **Chorus' fibre footprint now covers 1,500,000 addresses (excluding LFC areas)**

- fibre passed another 7,000 addresses in Q3 (Q2: +7k)
- overall fibre uptake grew 0.4% to 71% in Q3 (Q2: +0.4%)
- Auckland +0.1%; Wellington +0.3%; Dunedin +1.5%

> **Broadband connections were steady at 1,188,000***

- ~12k fibre broadband connections were added in Chorus fibre areas, matching copper broadband disconnections
- Home Fibre Starter (50Mbps) connections grew 8k to 38k
- 1Gbps and Hyperfibre (2Gbps+) connections grew by 4k to 238k and make up 25% of residential plans

> **Total fixed line connections declined by 6k (Q2: -10k) and now total 1,250,000***

- copper broadband and voice connections declined by 18k (Q2: -21k)
- voice only disconnections were -6k (Q2: -7k)
- copper withdrawal: 996 copper broadband cabinets no longer have active customers (Q2: 826 cabinets)

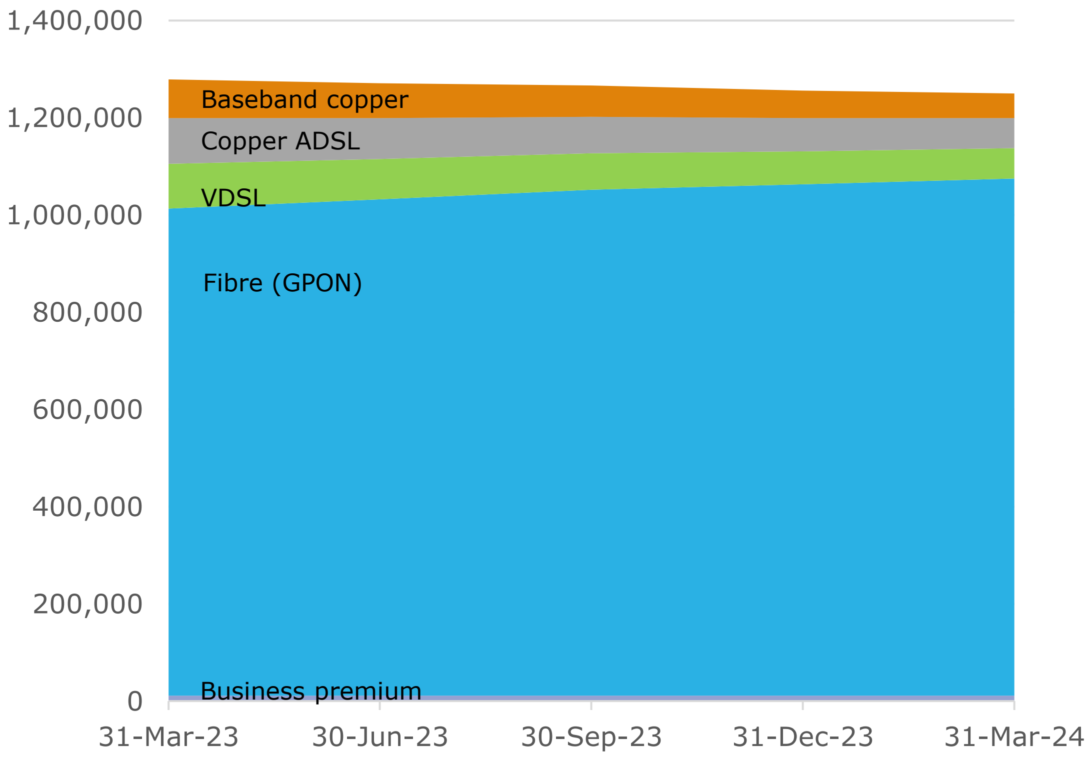
> **Average monthly data usage on fibre steady at 598GB in March**

- the proportion of terabyte super users (i.e. consuming 1,000GB+ a month) was 15%

*FY24 totals include fibre and copper DSL broadband connections Chorus is partly subsidising for student households

Fibre comprises 86% of Chorus connections

	31 March 2023	30 June 2023	30 Sept 2023	31 Dec 2023	31 March 2024
Baseband copper (no broadband)	80,000	72,000	64,000	57,000	51,000
Copper ADSL (includes naked)	94,000	84,000	75,000	68,000	62,000
VDSL (includes naked)	92,000	83,000	75,000	68,000	62,000
Fibre broadband (GPON)	1,002,000	1,021,000	1,041,000	1,052,000	1,064,000
Data services (copper)	1,000	1,000	1,000	1,000	1,000
Fibre premium (P2P)	10,000	10,000	10,000	10,000	10,000
Total connections	1,279,000	1,271,000	1,266,000*	1,256,000*	1,250,000*



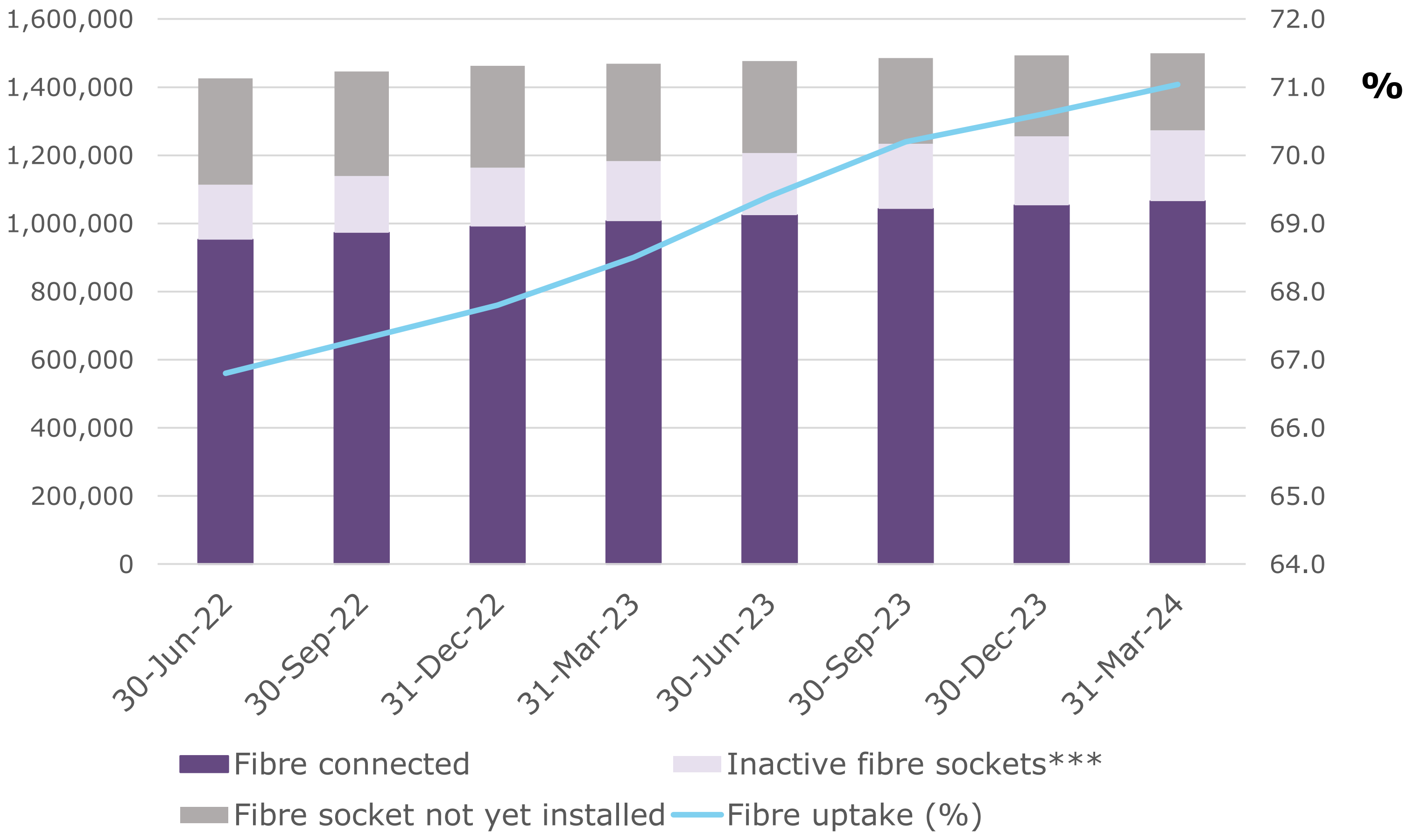
> **1,188,000* broadband connections comprises:**
- 1,064,000 fibre (GPON) connections
- 124,000 VDSL/ADSL (copper) connections

* Includes DSL and GPON partly subsidised education connections that were previously excluded from broadband totals

Fibre available to 1.5m addresses; 71% uptake

- **71% fibre uptake across 1,500,000 passed addresses***
  - uptake +0.4% in Q3
  - +12k active fibre connections**
  - +7,000 addresses passed in Q3

- **1,274,000 fibre installed addresses**
  - ~18,000 installations in Q3 (Q2: 23k)
  - 226,000 addresses passed by fibre, but fibre socket not yet installed (Q1: 238k)

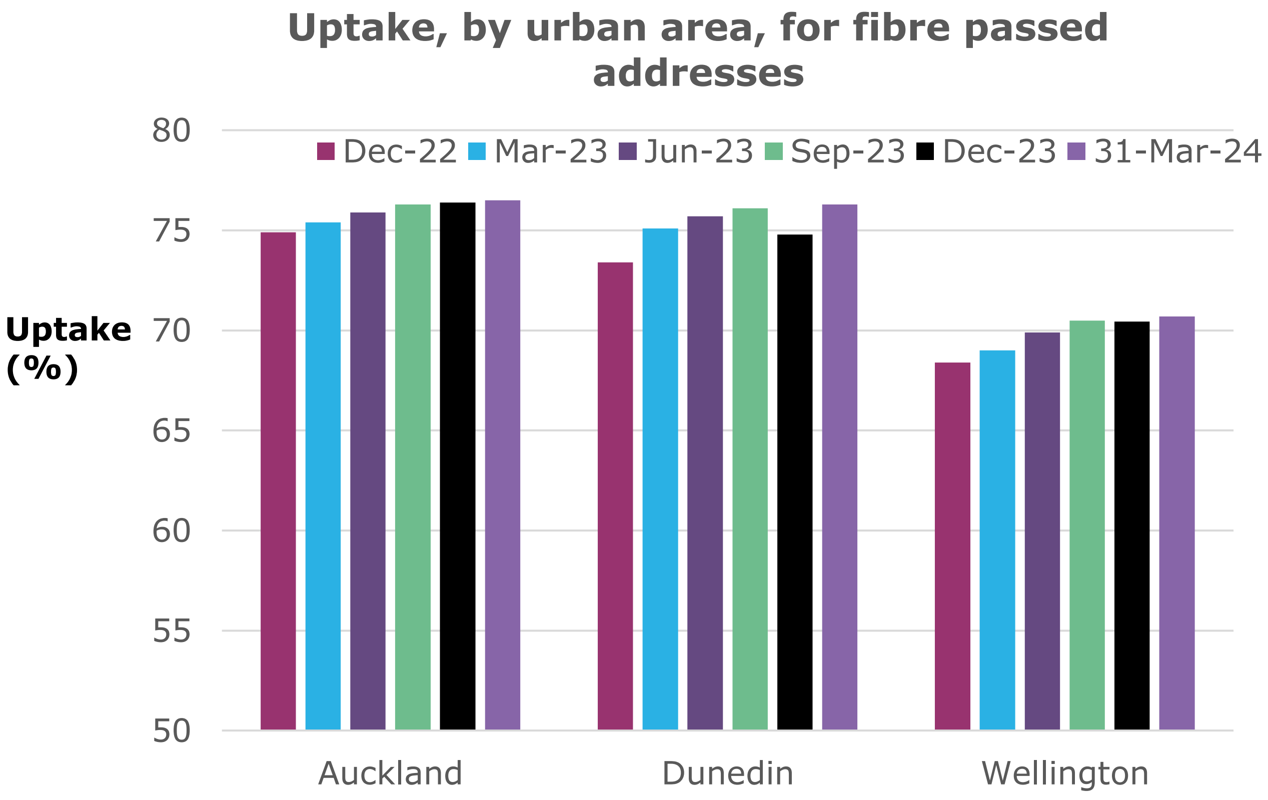


*based on independent address data and Chorus network data for addresses passed by fibre; excludes Chorus fibre in LFC areas
** includes ~7k fibre premium connections to addresses; excludes smart location (GPON) connections and connections in LFC areas
*** not active on 31 March 2024

Uptake by city

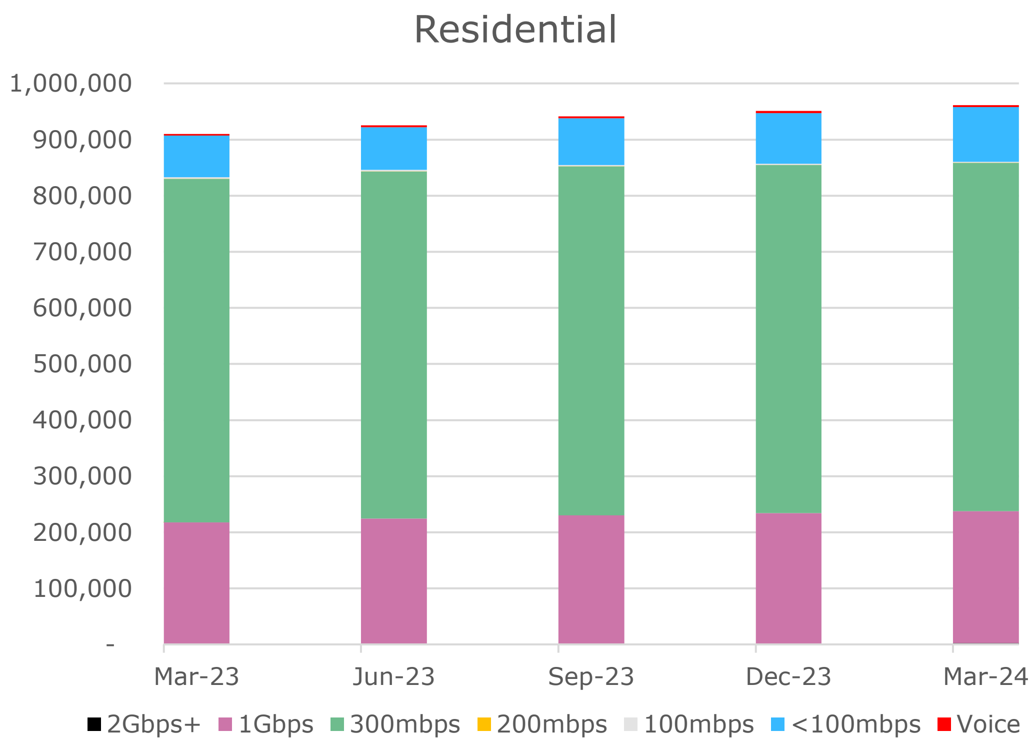
> **Uptake is measured across "urban areas" as defined by Statistics NZ, rather than original UFB rollout area**

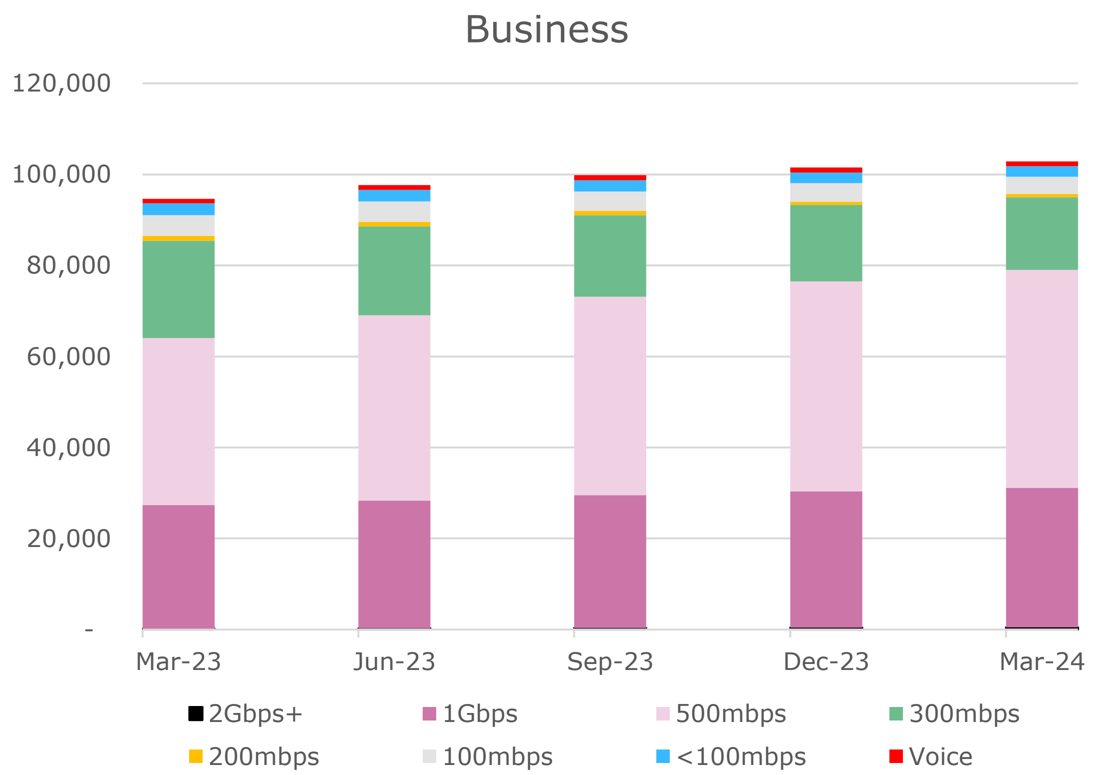
- **Auckland** uptake grew 0.1% to 76.5% in Q3 despite ongoing address growth
- **Dunedin** uptake increased 1.5% to 76.3% reflecting student seasonality
- **Wellington** increased 0.3% to 70.7%



Mass market fibre connections

- Home Fibre Starter (50Mbps) connections grew by 8k to 38k; plans below 300Mbps are 10% of residential connections
- 1Gbps and Hyperfibre (2Gbps+) connections grew by 4k to 238k and make up 25% of residential plans
- 77% of mass market business plans are on 500Mbps or above
- 3k Hyperfibre connections with 84% on residential 2Gbps+ plans

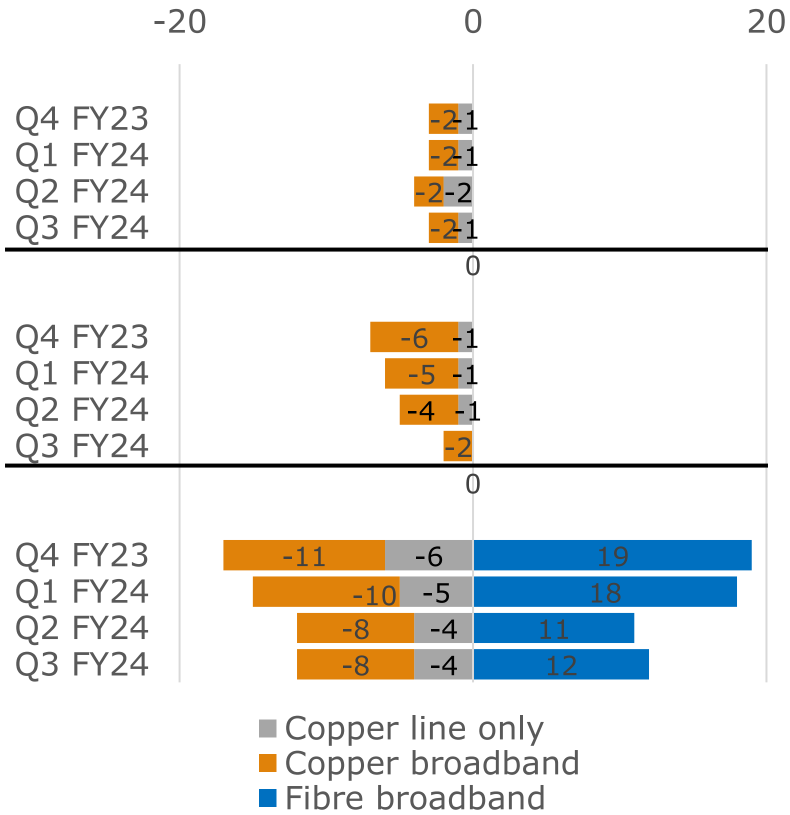




Connection changes by Zone (indicative as at 31 March*)

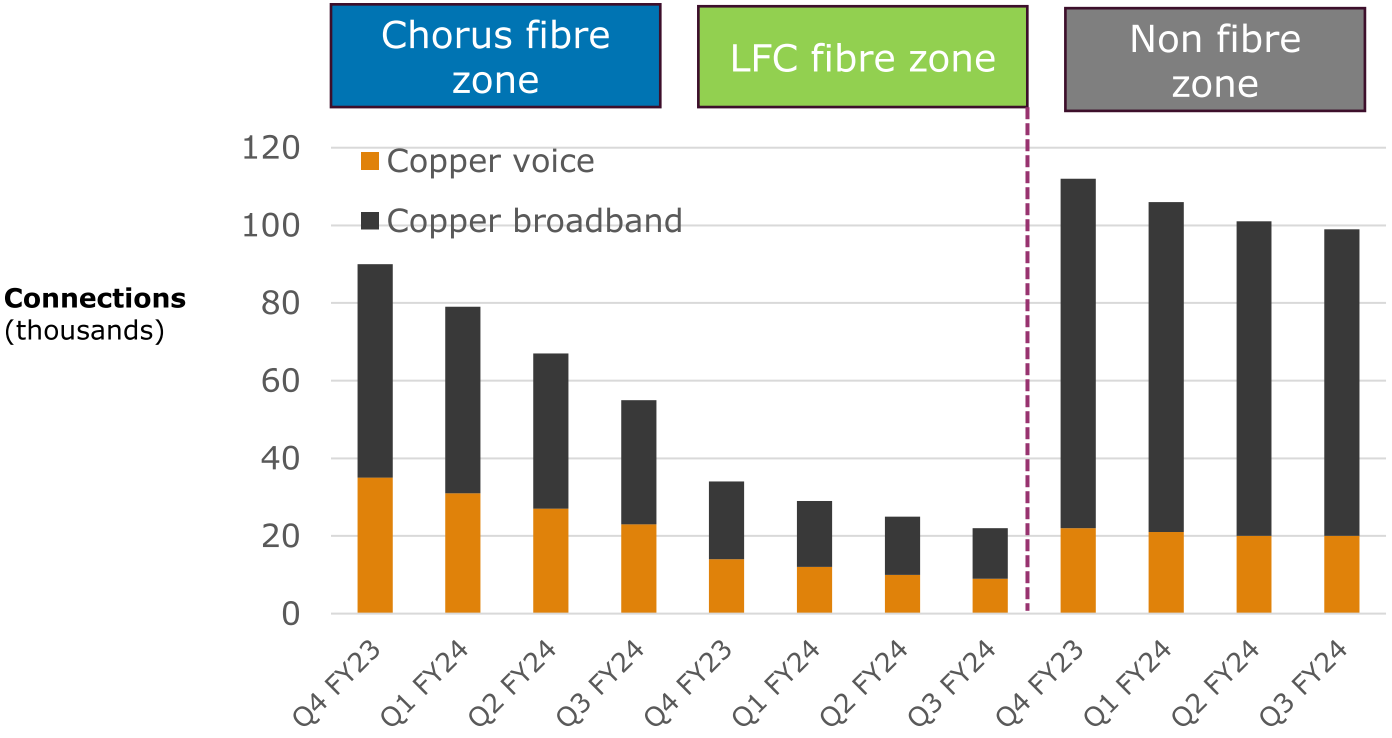
Other fibre company (LFC) zone	Copper lines (no broadband)	9,000	Local Fibre Company and fixed wireless provider activity is driving a gradual decline in copper connections.
	Copper broadband lines	13,000	
	Fibre broadband lines (GPON)	3,000	
	TOTAL	**25,000**	
Non-fibre addresses (i.e. Chorus fibre not available)	Copper lines (no broadband)	20,000	Ongoing decline in copper connections due to mobile/fixed wireless/satellite footprint expansion.
	Copper broadband lines	79,000	
	TOTAL	**99,000**	
Chorus fibre zone	Copper lines (no broadband)	23,000	Covers all addresses outside of LFC UFB rollout zone where Chorus fibre is available. Fibre footprint is growing as a result of new property development. Copper connections are reducing as Chorus retires its copper network.
	Copper broadband lines	32,000	
	Fibre broadband lines (GPON)	1,059,000	
	TOTAL	**1,114,000**	

Quarterly change ('000s) by zone



* Excludes ~13k fibre premium and data services (copper) and smart location connections

Copper withdrawal: 21k connections under notice

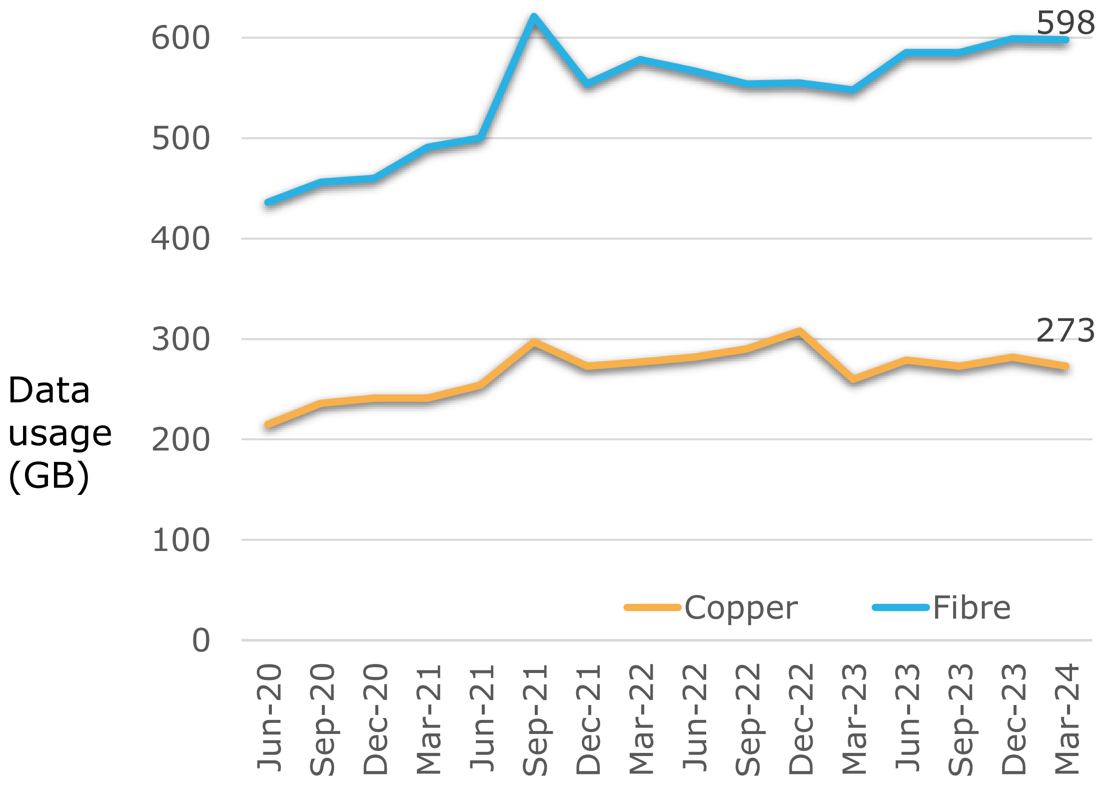


Copper connections able to be withdrawn with 6 months' notice where fibre is available

- **~64,000 copper withdrawal notifications issued (cumulative) in fibre areas**
  - copper service ceased for ~43,000 notified connections; ~21k currently under notice
  - 996 copper broadband cabinets closed (Q2: 826); 1,479 under closure notice
  - broadband retention rate of 83% across closed cabinets
- **managed migration initiatives: activation of installed fibre sockets (ONTs)**
  - ~6k sockets activated in Q3 (Q2: ~7k)
  - 58% of activations were offnet addresses (Q2: 57%)

Monthly average data usage on fibre 598 gigabytes

Monthly average data usage per connection*



* includes upstream traffic

> monthly average data usage on fibre was stable at just under 600GB in March

> the proportion of broadband connections using more than 1 terabyte of data was 15%

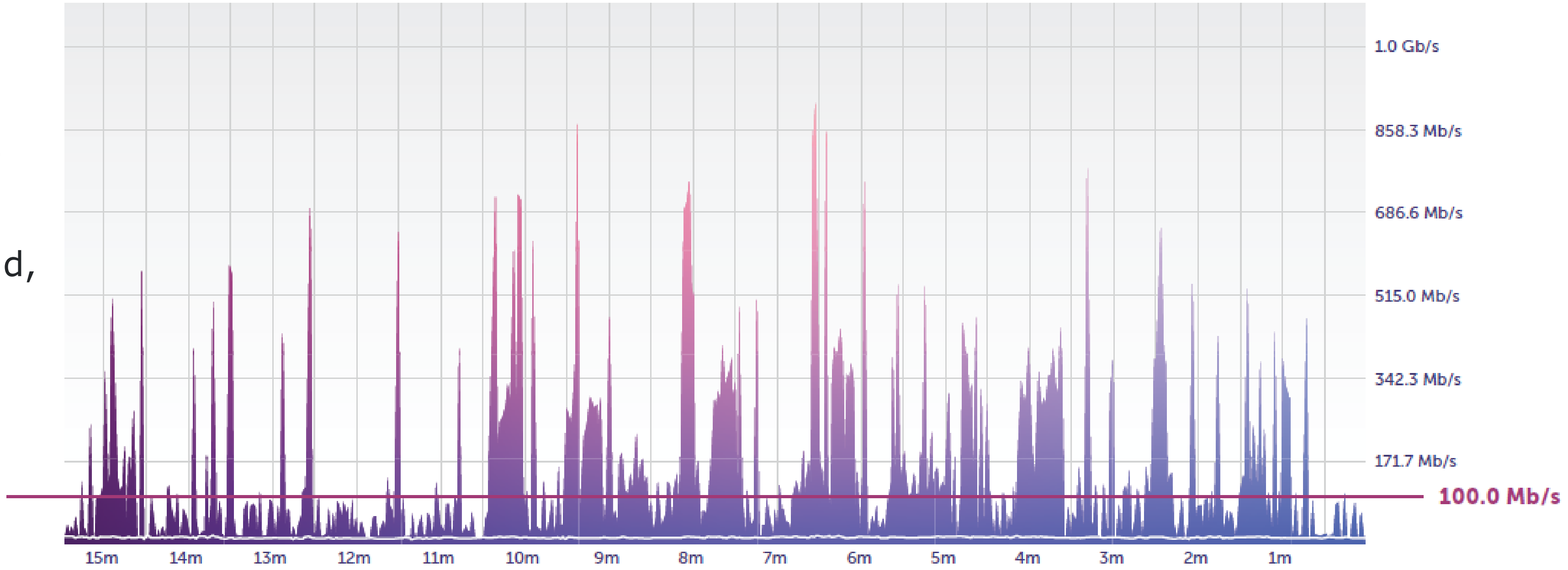
> copper usage decreased from 282GB in December to 273GB in March

Average usage doesn't reflect household 'bursts'

> 35% increase in peak traffic demand in 2023, despite post-COVID slowdown
  - driven by high simultaneous data use in households - on average 20 connected devices, with devices expected to double every five-years[1], and increasing levels of video streaming intensifying data demand bursts

> graph (below) shows 15 minutes of shared family usage with data bursting up to 1 Gbps, above a theoretical 100Mbps plan maximum

> decisions on fibre plan speed should therefore be based on:
  - peak throughput demand for family
  - the needs of all the household, rather than a single device



[1]*World Broadband Association, 2023*

Importance of quality Wi-Fi in the home

> Wi-Fi 6 is currently the most widely available technology, but many households may be using outdated or poor performing Wi-Fi routers

> new Wi-Fi 7 standard will provide a substantial lift in performance with more efficient sharing of spectrum among devices
> - five times more shared capacity than Wi-Fi 6
> - up to 100 times lower latency in the home
> - throughput of 46Gbps (Wi-Fi 6: 9.6Gbps)

x 11.5 x 1.3 x 4.8

	Wi-Fi 4	Wi-Fi 5	Wi-Fi 6/6E	Wi-Fi 7
Standard	802.11n	802.11ac	802.11ax	802.11be
Max Speed with 1 Spatial Stream	150 Mbps	866.7 Mbps	1.2 Gbps	2.9 Gbps
Max Speed with 2 Spatial Streams	300 Mbps	1.73 Gbps	2.5 Gbps	5.8 Gbps
Max Speed with Max # Spatial Streams	600 Mbps	6.92 Gbps	9.6 Gbps	46.4 Gbps

New Zealand ranked 17th for fibre penetration

- Recent FTTH Council Europe data for global FTTH/B uptake shows New Zealand at 69% penetration (subscribers/total households) as at Sept 2023