Q3 FY20 Connections Update

9 April 2020

Q3 FY20 overview

COVID-19 lockdown from 25 March confirms utility role of fixed line broadband

> **Monthly average data usage for March grew to 346GB, up 18% from 293GB in December**

- copper broadband usage grew to 225GB vs 429GB for fibre users
- the COVID-19 lockdown is reinforcing the value of unlimited datacaps, with 103GB average usage in just the last week of March, while two-way services such as video conferencing drove 85% greater upload usage during daytime

> **Broadband connections grew 4k in Chorus UFB and rural areas, while total broadband connections reduced by 4k to 1,202,000** (Q2 FY20: no change; Q3 FY19: +5k)

- fibre demand remained strong with 32k connections added (Q2 FY20: +36k) despite COVID-19 impacts (i.e. fewer returning students and reduced installations during lockdown in late March)
- strong growth in 1Gbps connections to 105k (Q2: 87k), now 15% of mass market fibre connections
- UFB uptake rose from 56% to 58% and fibre was extended past 13,000 more customers

> **Total fixed line connections declined by 13k to 1,419,000** (Q2 FY20: -12k; Q3 FY19: -14k)

- copper voice line reductions continued to moderate in Q3 (Q3 -8k; Q2 -12k)

COVID-19: Keeping New Zealand connected

> **Our network is supporting exponential growth in broadband traffic**

- record evening peak of 3Tbps on 27 March, up from Rugby World Cup record of 2.6Tbps
- we've offered to enable existing connections in up to 50,000 non-broadband homes, free-of-charge for six months, to support government initiatives for online schooling

> **Field force activity reduced to essential work only; focus on maintaining workforce capability**

- UFB2 rollout, subdivision and proactive work paused, while network restoration continues
- we are working closely with service companies to identify support for them and our technician workforce, in the context of their significantly reduced workflow/revenue, so they can quickly return to extending the fibre network and connecting a backlog of customers post-lockdown

> **We're working with RSPs to address industry-wide challenges**

- fast tracking handover and backhaul capacity upgrades that keep services congestion free
- CPI increase on wholesale charges delayed until October, possibly longer
- introducing a process for RSP business customers so they can temporarily disconnect lines to limit network charges while they aren't trading, and waiving our reconnection fee

COVID-19: post lockdown connection impact

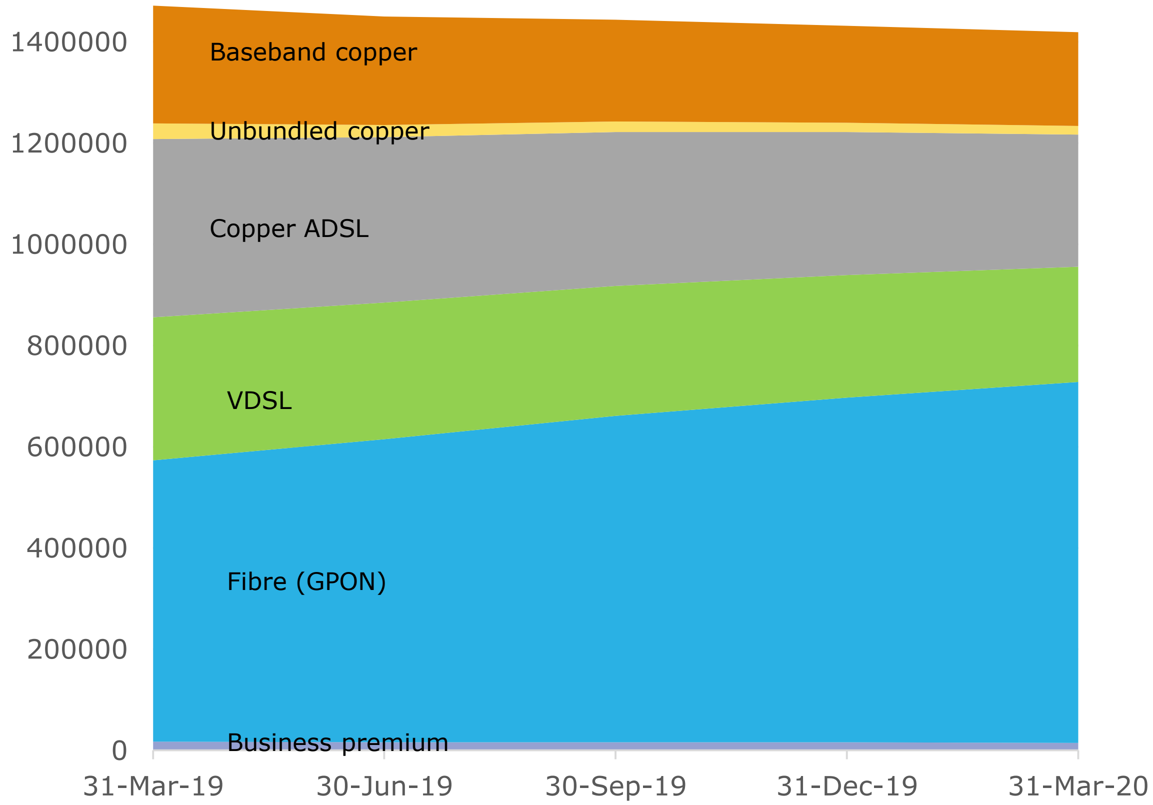
- **Fibre installations have slowed significantly to ~100 per day vs ~650 prior as a result of alert Level 4 restrictions**
  - broadband installations limited to premises with no existing fixed line broadband, or customers with essential business or educational requirements not met by an existing broadband service
  - number of active connection crews has reduced from ~640 pre-lockdown to ~260
  - we have suspended our door-to-door fibre migration programme, but have a new RSP incentive campaign focused on ~50k addresses where fibre is ready to activate remotely
  - non-essential installations are currently being scheduled to resume in May, with WIP expected to grow from current level of 18k orders

- **Broadband service upgrades are continuing via remote provisioning**
  - 1Gbps upgrade orders grew ~50% in the first two weeks of lockdown; 3k upgrades to 1Gbps were completed in March (excluding RSP bulk migrations)
  - ADSL to VDSL upgrades have also increased since the lockdown began

- **Expect to see an increase in network disconnections as economic slowdown affects businesses and our temporary disconnection process is utilised**

Fibre now makes up 51% of Chorus connections

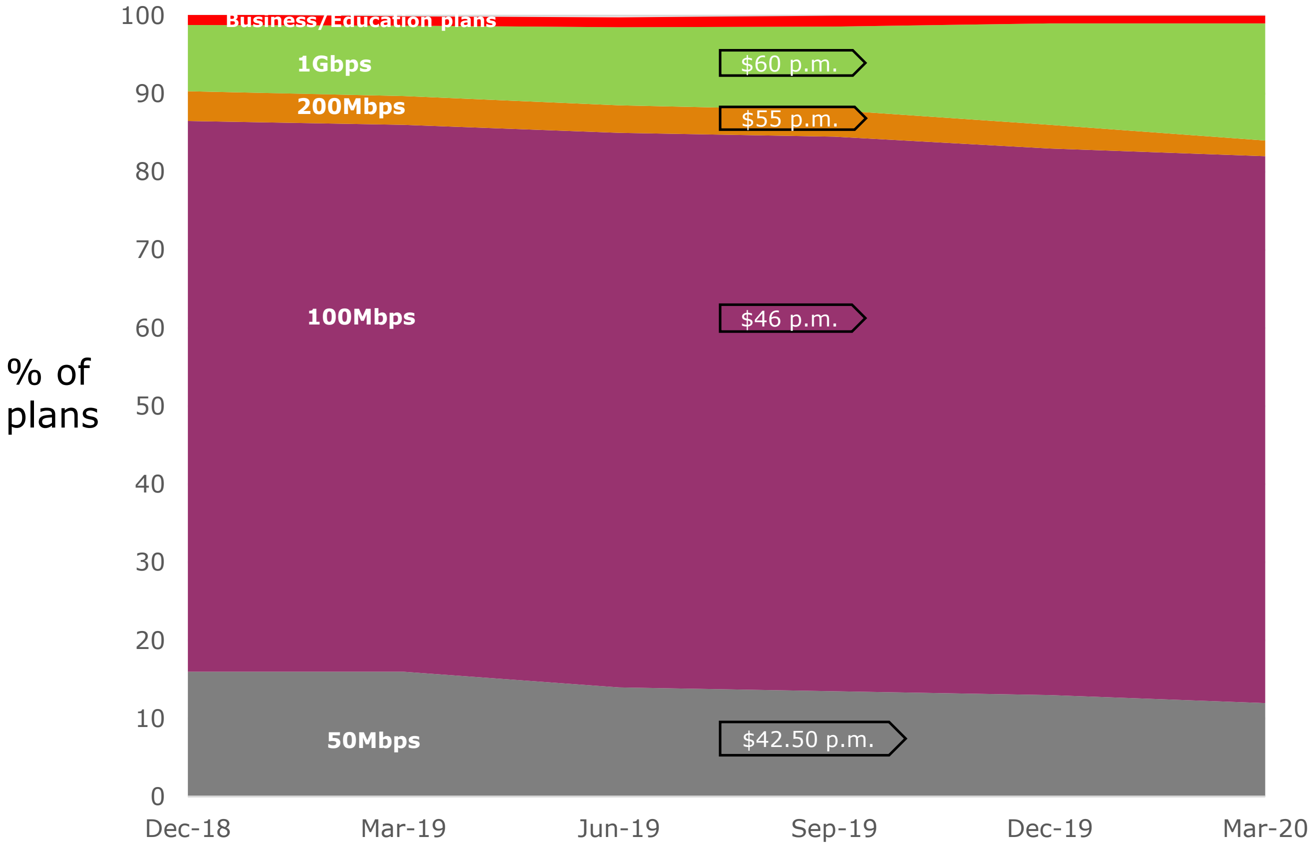
	31 March 2019	30 June 2019	30 Sept 2019	31 Dec 2019	31 March 2020
Unbundled copper (no broadband)	31,000	24,000	21,000	18,000	17,000
Baseband copper (no broadband)	233,000	214,000	201,000	192,000	185,000
Copper ADSL (includes naked)	352,000	327,000	304,000	283,000	261,000
VDSL (includes naked)	283,000	270,000	257,000	242,000	228,000
Fibre broadband (GPON)	556,000	599,000	645,000	681,000	713,000
Data services (copper)	5,000	5,000	4,000	4,000	4,000
Fibre premium (P2P)	12,000	11,000	12,000	12,000	11,000
Total connections	1,472,000	1,450,000	1,444,000	1,432,000	1,419,000



> **1,202,000 broadband connections comprises:**
- 713,000 fibre (GPON) connections
- 489,000 VDSL/ADSL (copper) connections

1Gbps plans grew from 13% to 15%

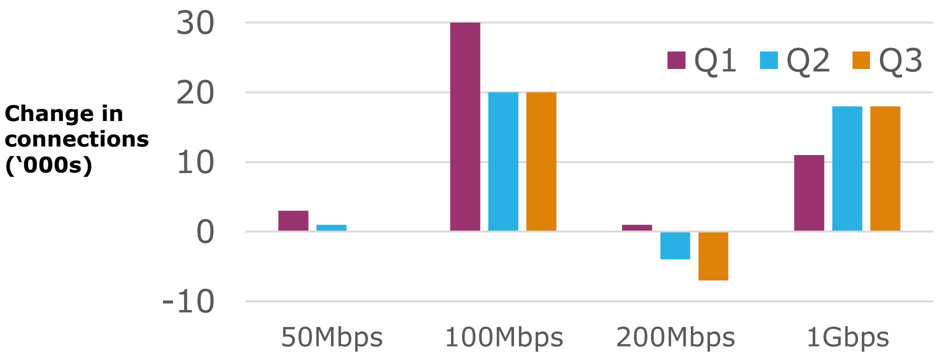
Total mass market fibre uptake by plan type



32,000 mass market fibre connections added

- 1Gbps connections grew from 87k to 105k, helped by RSP migration of 200Mbps customers, and now represent 15% of mass market fibre
- 100Mbps retained 70% share at 494k
- 50Mbps connections were flat at 88k or 12%

Fibre plan movement by quarter

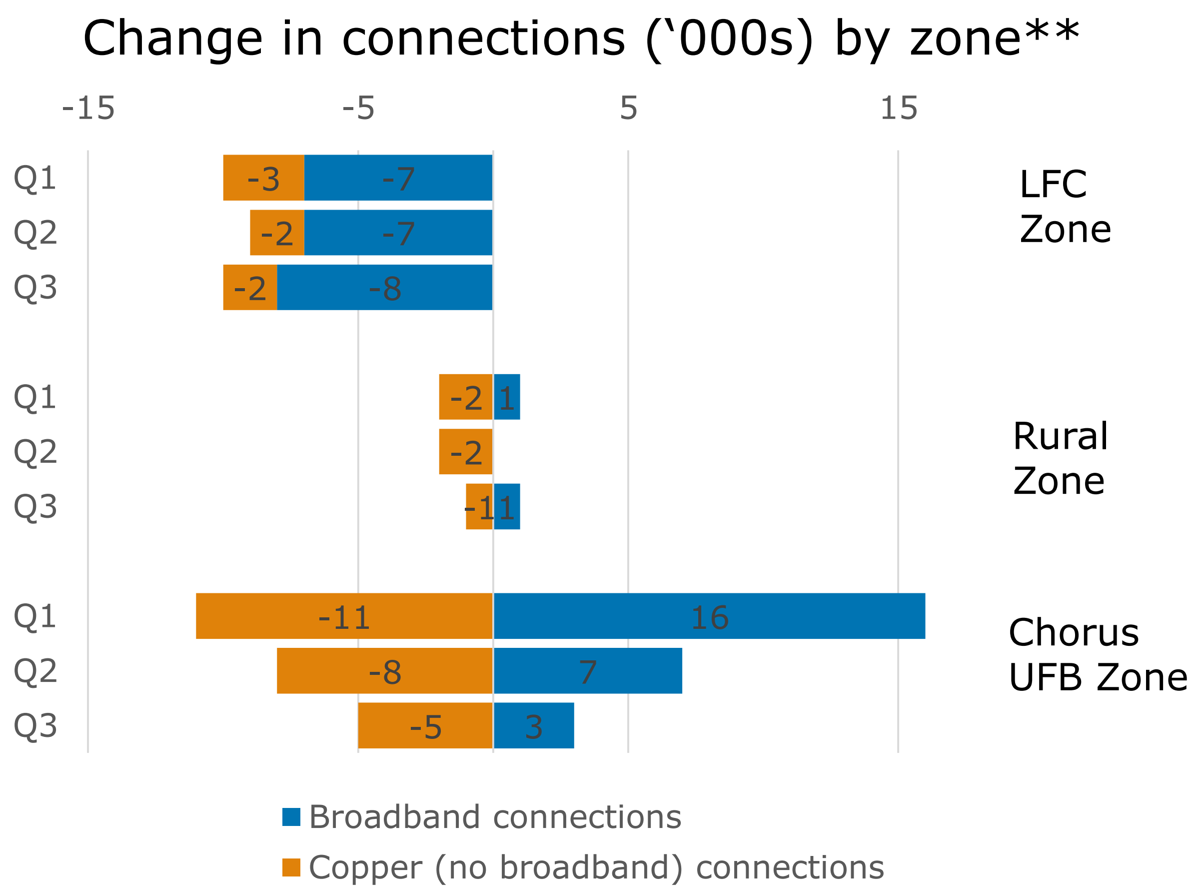


Connection changes by Zone (indicative)

- **Chorus UFB zone:** 3k broadband growth despite signs of wireless migration of copper broadband customers earlier in Q3 and lower fibre volumes in March as a result of COVID-19, while copper voice line loss continued to slow
- **LFC zone**: a clear reduction in VDSL disconnects in March, with LFC and wireless competition in prior months moderating
- **Rural**: positive broadband growth, with VDSL/fibre adds exceeding ADSL reductions

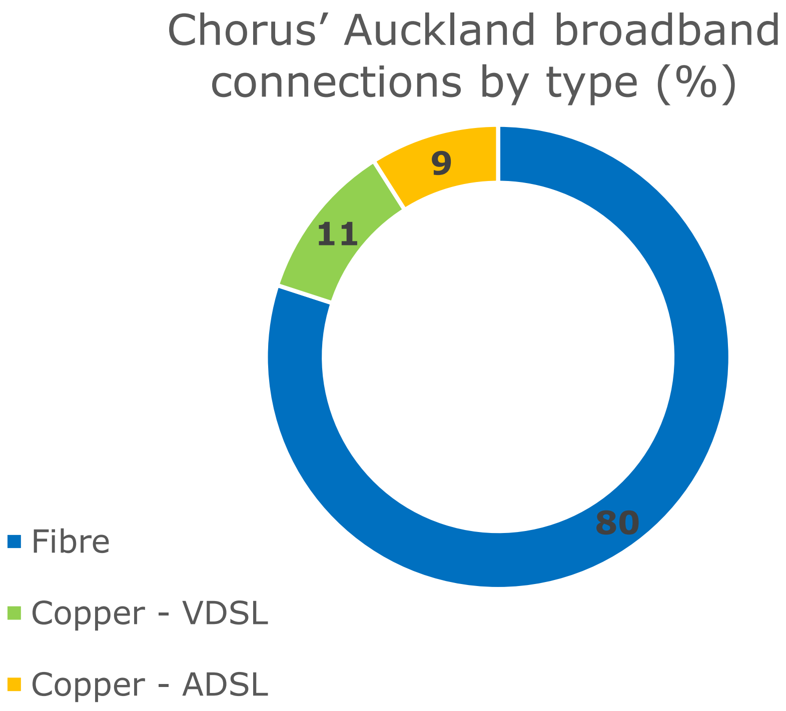
	Chorus UFB zone*	Rural (non-UFB) zone	Local Fibre Company UFB zone
Total connections at 31 March**	**1,094,000**	**196,000**	**114,000**
Broadband connections	972,000	155,000	75,000
Copper (no broadband) connections	122,000	41,000	39,000

* Includes planned UFB1, 2 and 2+ coverage
**Excludes 15k fibre premium and data services (copper) connections

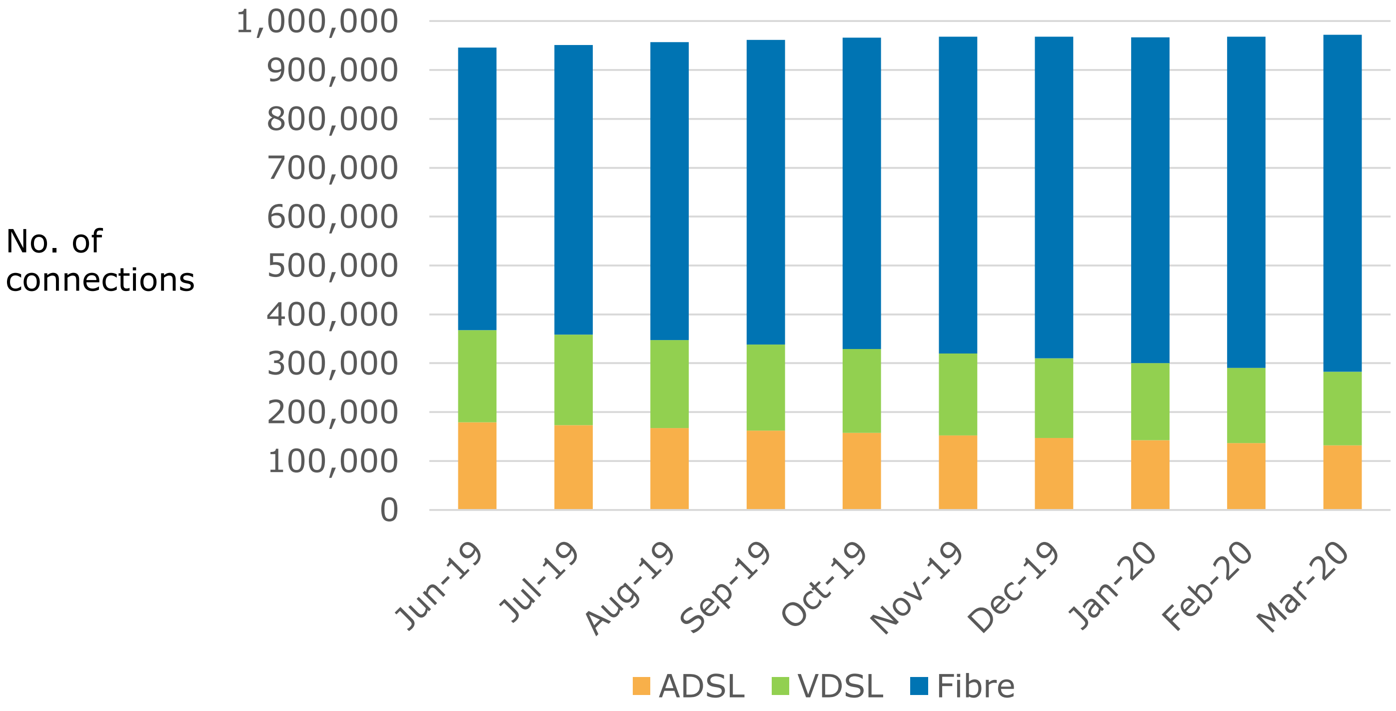


Broadband mix in Chorus planned UFB zone

80% of Chorus broadband connections in Auckland on fibre



Fibre now 71% of Chorus broadband connections in planned UFB zone



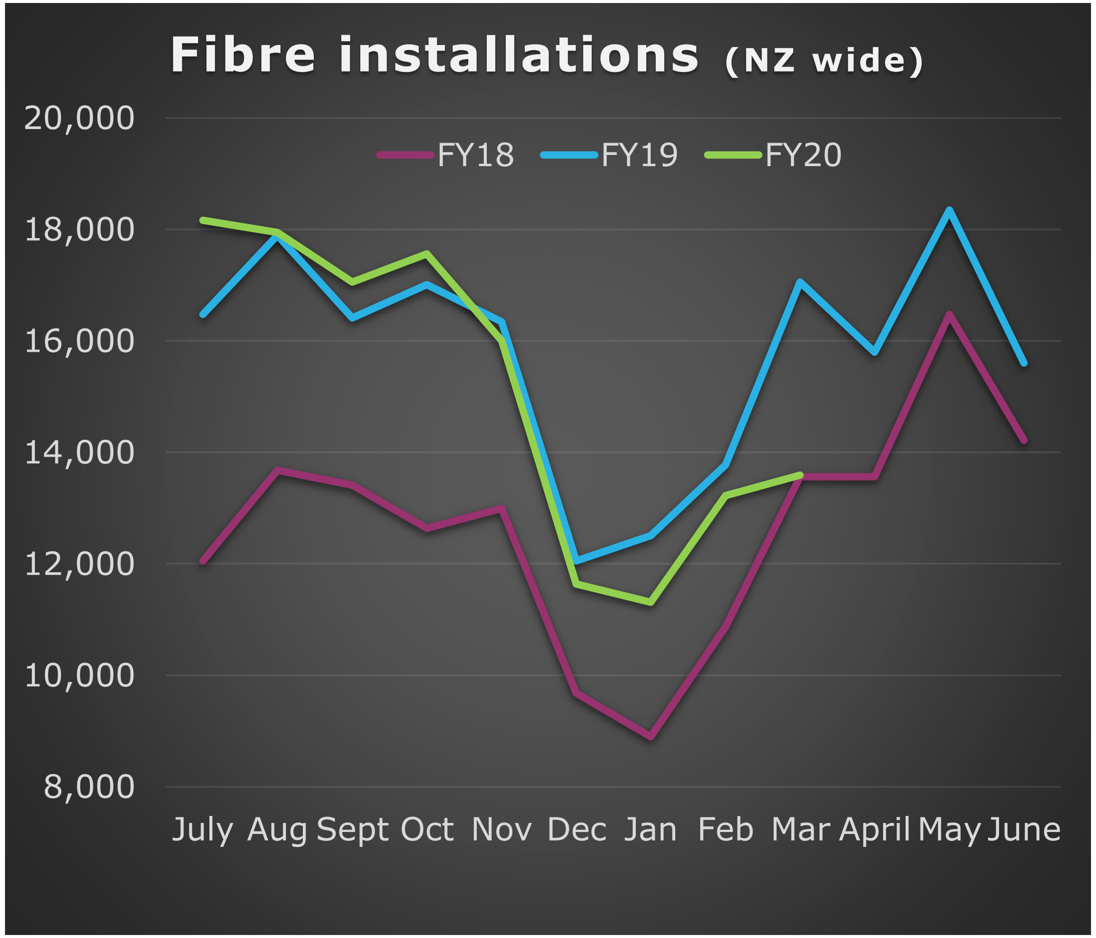
UFB rollout 87% complete

> **UFB uptake increased from 56% to 58% within completed footprint**
- uptake in UFB1 areas grew from 58% to **60%**
- uptake in UFB2 areas grew from 34% to **35%**

(note: uptake includes some UFB2 areas that have been partially built, but not yet submitted for Crown sign-off)

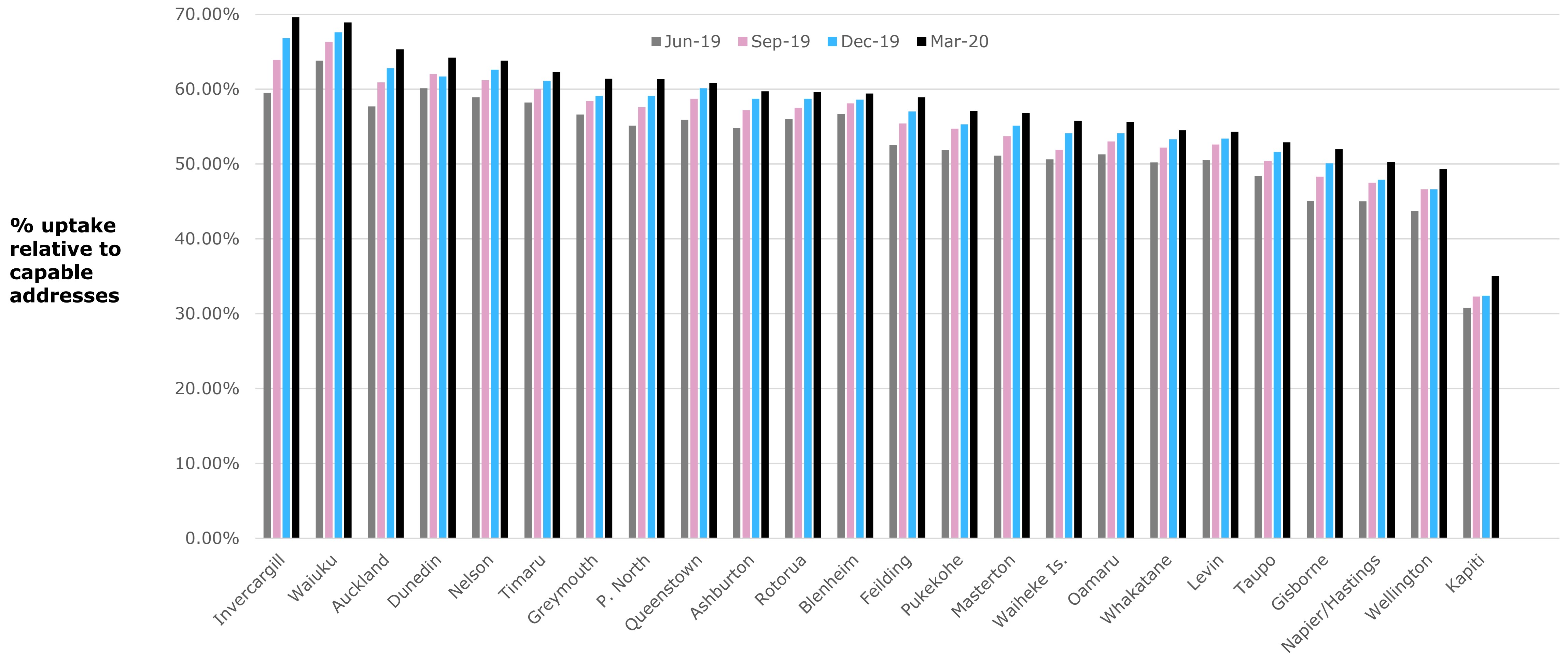
- **695,000** connections (Q2: 664,000) now within completed footprint, including business premium
- **1,198,000** customers able to connect (Q2: 1,185,000)
- **920,000** premises passed (Q2: 909,000) out of 1,054,000 target = UFB rollout 87% complete

> **38,000 fibre installations completed in Q3 (Q2: 45k)**
- customer satisfaction increased from 7.8 to **7.9**
- **9k** installations through our managed migrations programme



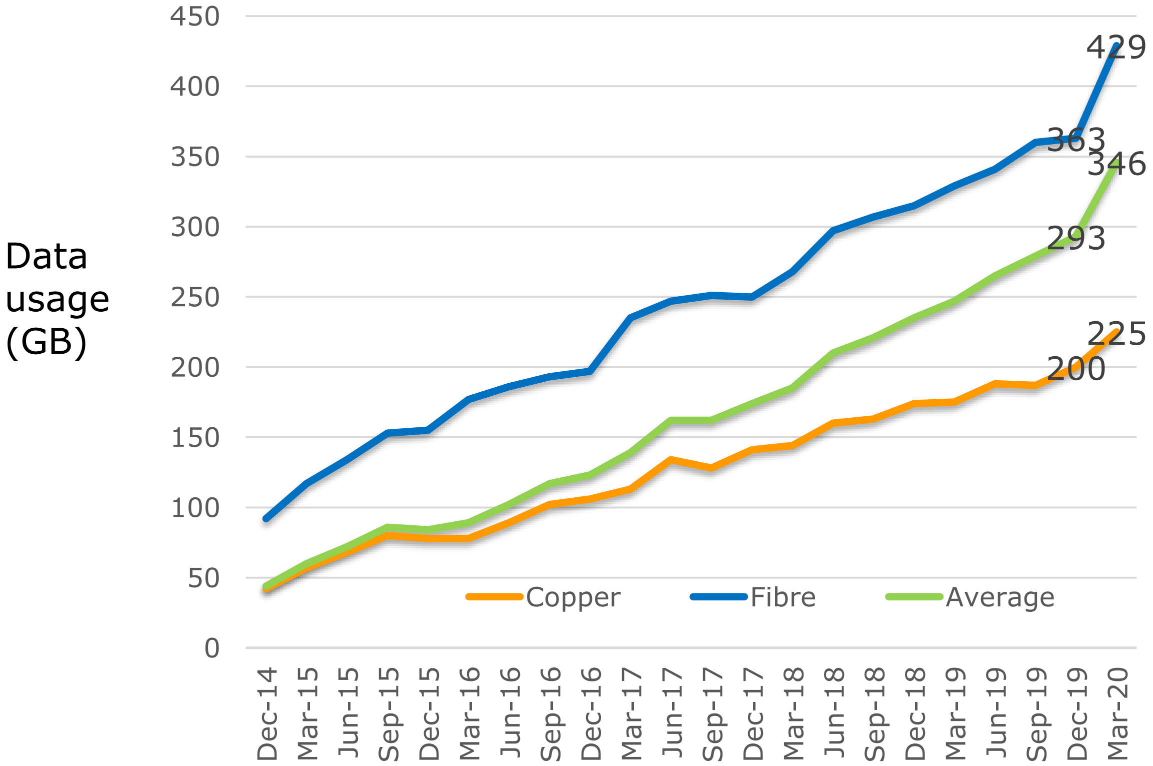
CHORUS

UFB1 uptake: 60%



Monthly average data usage grew 18% in Q3

Monthly average data usage per connection on our network

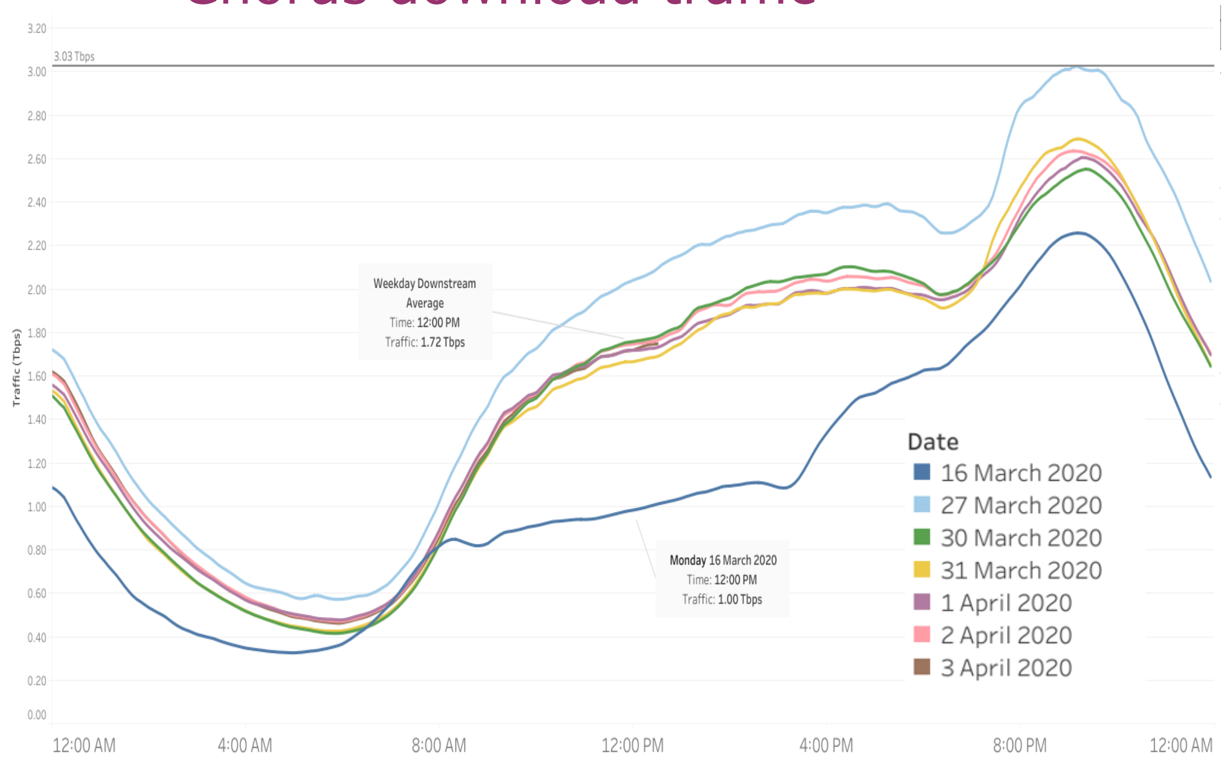


- monthly average data usage per connection on our network grew to **346GB** in Q3, up from **293GB** (Dec)
  - **429GB** on fibre (Dec:363GB)
  - **225GB** on copper (Dec:200GB)
- data usage in the last week of March averaged **103GB** as New Zealanders spent time at home for the COVID-19 lockdown
  - the increase in data needs is driving increased consumer awareness of datacap limitations, along with upload/latency requirements
- continued growth in demand for EdgeCentre colocation capability in Auckland; extending footprint to Tauranga

COVID-19 effect on network traffic

- Download traffic set a new record of 3.03Tbps on 27 March, well within Chorus' network capacity.
- Daytime upload traffic has grown ~85% as Kiwis use services such as video conferencing, requiring greater bandwidth and low latency (latency above 30ms can result in poor experience of applications such as gaming and video calls – see *Measuring Broadband NZ,* Spring Report, December 2019 - Figure 13).

Chorus download traffic



Chorus upload traffic