THE CONVERGENCE RESEARCH GROUP LTD.

CONTENT • ECONOMICS • HIGH-TECH • INTERNET • TELECOM

The Battle for the North American (US/Canada) Couch Potato: Bundling, Television Internet, Telephone, Wireless

May 2021

www.convergenceonline.com

Contents

Commentary

Now in its 19th year of publication, The Battle for the North American (US/Canada) Couch Potato: Bundling, TV, Internet, Telephone, Wireless (205 pages) contains analysis of product offers (including prices), strategy, subscriber & financial performance metrics (including forecasts) by Company & Market. In addition to Convergence analysis, sources include company interviews, annual/quarterly reports & presentations, CRTC, ISED & Statistics Canada, US Census.

US Commentary (Canadian Commentary follows), please see Table of Contents for what is included in this Report:

We estimate 2020 US Cable, Satellite, Telco TV access revenue declined 6% to $94.7 billion and forecast a decline of X% to $X billion in 2021 (hence ARPU should grow X%), with decline increasing to X% in 2023 to $X billion. We forecast Cable, Satellite (includes DirecTV/AT&T TV & Dish), Telco will have X%, X%, X% of US TV subscribers YE2021.

We estimate 2020 saw a decline of 6.49 million US TV subscribers, 2019 a decline of 6.36 million, and we forecast a decline of 7.35 million TV subs in 2021, X million in 2022, and X million in 2023; hence US TV subscribers declined by X% in 2020, up from X% in 2019, and we forecast decline will rise to X% in 2021, X% in 2022 and X% in 2023.

As illustrated in our US Cord Cutter/Never Household Model, as of YE2020 we estimate X million US households (41.7% of HHs) did not have a TV subscription with a Cable, Satellite, or Telco TV access provider, up from X million (36.1% of HHs) YE2019, and we forecast a rise to X million (X% of HHs) YE2021, X million (X% of HHs), and X million (X% of HHs) YE2023. 2020 saw 7.81 million, 2019 X million, and we forecast X million 2021, X million 2022 and X million 2023 cord cutter/never household additions.

Extending out forecasts to YE2026 from YE2020, demonstrates a decline of more than X% of TV subscribers, more than X of annual TV access revenue, and almost a X of cord cutter/never households.

We estimate 5.02 million US residential broadband subscribers were added in 2020 (the largest annual broadband subscriber additions in over a decade) and revenue grew X% to $X billion; we forecast another strong year for 2021 with X million additions and $X billion in revenue, and X million/annum additions on average 2022-2023. Residential broadband subs surpassed TV subs in 2017. We forecast 2022 residential broadband access revenue will exceed 2022 TV access revenue.

Cable continues to add the lion's share of residential broadband subs. 2020 was the first year Telco, despite CenturyLink/Lumen & Frontier, added residential broadband subs since 2014 and we forecast continued overall Telco sub gains.

We estimate 2020 residential wireline telephone line loss was X%, we forecast X%/annum on average for 2021-2023. Telco residential wireline telephone loss continues to run in the X% range whereas Cable loss has been running in the X% range (we expect this to increase X% 2021-2023). Cable represented just over X of US residential wireline telephone subs YE2020; we forecast X% YE2023. We estimate wireless-only households at X% YE2020 and forecast X% YE2023.

T-Mobile continues to lead AT&T and Verizon on annual subscriber additions and service revenue growth, while Cable's small market share increases.

Canadian Commentary, please see Table of Contents for what is included in this Report:

We estimate 2020 Canadian Cable, Telco, Satellite TV access revenue declined 3% to $8.14 billion & forecast a X% decline to $X billion (hence ARPU should grow by X%) in 2021 and a X% decline to $X billion in 2023. We forecast Cable, Telco, Satellite will have X%, X%, X% of Canadian TV subs YE2021.

We estimate 2020 saw a decline of 389,000 Canadian TV subscribers, 2019 a decline of 278,000 TV subscribers, and we forecast a decline of X in 2021, X in 2022, and X in 2023; hence Canadian TV subscribers declined by 3.7% in 2020, up from 2.6% in 2019, and we forecast decline will rise to X% in 2021, X% in 2022, and X% in 2023.

As illustrated in our Canadian Cord Cutter/Never Household Model, as of YE2020 we estimate X million Canadian households (35.4% of HHs) did not have a TV subscription with a Cable, Satellite, or Telco TV access provider, up from X million (32.2% of HHs) YE2019, and we forecast a rise to X million (X% of HHs) YE2021, X million (X% of HHs) YE2022, and X million (X% of HHs) YE2023. 2020 saw 520,000, 2019 X, and we forecast 2021 X, 2022 X, and 2023 X cord cutter/never household additions.

Canadian TV subscribers and access revenue are currently not seeing as steep a rate of decline as the US but this could change in the medium term- dependent on new, or expanded, OTT offers in Canada.

2020 Canadian residential broadband subscriber additions we estimate were X and revenue grew X% to $X billion; we forecast X additions and $X billion for 2021, and over X/annum additions 2022-2023. 2020 and 2019 were banner years for residential broadband subscriber additions, we forecast 2021 will be stronger, with 2008 and prior being the last time Canada saw better additions than 2019, 2020 and 2021 projected. Although Cable continues to lead on residential broadband market share, Telco well exceeded Cable on additions in 2019 & 2020 and we forecast Telco will continue to exceed Cable on additions through 2023. Canadian residential broadband revenue first exceeded TV revenue in 2018, Canadian residential broadband subs surpassed TV subs in 2015, and at current run-rate Canadian residential broadband ARPU should better TV ARPU in 2023.

Canadian residential wireline telephone lines declined we estimate X% in 2020 and we forecast X% for 2021, X% for 2022, and X% for 2023. We forecast Cable will represent X% of residential wireline telephone subs YE2021; Cable's market share continues to decline.

Wireless-only household penetration continues to see strong growth, we estimate X% of Canadian households no longer have a landline, and we forecast X% YE2023.

Although between COVID, unlimited wireless plans, the Government's price reduction mandate, Fizz, as well as Shaw Mobile bundles & Freedom, we expect ARPU pressure to continue, we forecast service revenue and modest ARPU growth in 2021 and go-forward, after 2020's unusual decline. We estimate 2020 Canadian wireless service (weighted) ARPU declined by X%, and forecast growth of X% for 2021, X% in 2022, and X% for 2023. We estimate 2020 wireless service revenue declined X% to $X billion, we forecast X% revenue growth to $X billion for 2021, X% to $X billion for 2022 and X% to $X billion for 2023. We estimate X wireless subscribers were added in 2020, and forecast X million additions for 2021.