State Connections

The broadband working group for state legislators

Agenda

- Introductions - name, state, topics of interest

- Overview Key Federal and State Broadband Programs

- Review of Existing State Broadband Laws

- Discussion of State Legislative Issues and Opportunities

- General Discussion & Homework

Overview of Key Federal and State Broadband Programs

Problem

Solution

Action

Overview of Key Federal and State Broadband Programs

Problem

Access

The need for quality infrastructure to provide broadband internet service.

Solution

BEAD
Broadband Equity Access & Deployment

Build infrastructure primarily in unserved (i.e. rural) areas.

Action

- Initial Proposal (V1, V2)

- Map challenge process

- ISP applications

Overview of Key Federal and State Broadband Programs

	Access	**Affordability**
Problem	The need for quality infrastructure to provide broadband internet service.	The cost to acquire and maintain an internet subscription and devices.
Solution	**BEAD** *Broadband Equity Access & Deployment* Build infrastructure primarily in unserved (i.e. rural) areas.	**ACP** *Affordable Connectivity Program* $30/mo benefit program to help low-income subscribers afford service.
Action	• Initial Proposal (V1, V2) • Map challenge process • ISP applications	• Congress needs to refund, or states need to consider alternatives

Overview of Key Federal and State Broadband Programs

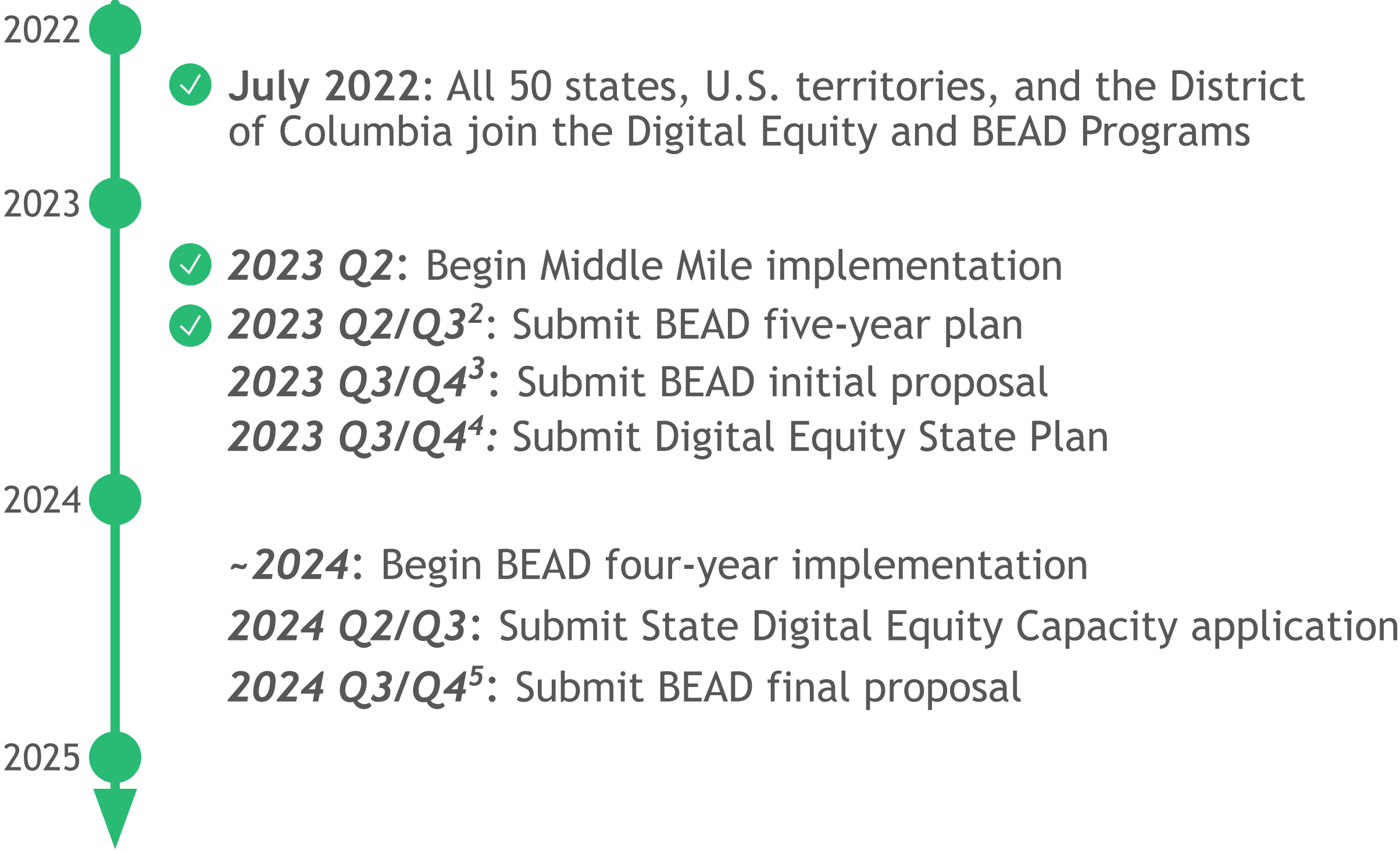|	Access	Affordability	Adoption
Problem	The need for quality infrastructure to provide broadband internet service.	The cost to acquire and maintain an internet subscription and devices.	The challenge of safely and effectively integrating technology into ones life.
Solution	**BEAD** *Broadband Equity Access & Deployment* — Build infrastructure primarily in unserved (i.e. rural) areas.	**ACP** *Affordable Connectivity Program* — $30/mo benefit program to help low-income subscribers afford service.	**DEA** *Digital Equity Act* — Promote skills related to technology, connectivity, cybersecurity, and more.
Action	• Initial Proposal (V1, V2) • Map challenge process • ISP applications	• Congress needs to refund, or states need to consider alternatives	• State planning process • Capacity and Competitive grants

Timeline for State Implementation of IIJA Broadband Programs

2022

✓ **July 2022**: All 50 states, U.S. territories, and the District of Columbia join the Digital Equity and BEAD Programs

2023

✓ *2023 Q2*: Begin Middle Mile implementation

✓ *2023 Q2/Q3[2]*: Submit BEAD five-year plan

2023 Q3/Q4[3]: Submit BEAD initial proposal

2023 Q3/Q4[4]: Submit Digital Equity State Plan

2024

~2024: Begin BEAD four-year implementation

2024 Q2/Q3: Submit State Digital Equity Capacity application

2024 Q3/Q4[5]: Submit BEAD final proposal

2025

1. EEs that receive Initial Planning Funds must submit Five-Year Action Plans. 2. Due 270 days after planning funds received. 3. Due 180 days after new DATA maps and notice of fundings amounts issued. 4. Due within one year of the date on which a state is awarded DE Planning Grant Program funds. 5. Due 365 days after initial proposal approval.
Note: Estimated time lines based on information provided in NTIA overviews.

Homework & Key Resources

Contact your state's broadband office and federal program officer (FPO).

Find their contact info here.

- How many FTEs are dedicated to broadband?
- What are the state's legislative needs? (e.g. permitting reform, municipal eligibility, more staff, funding source?)

Research your state's broadband plans and map.

- Look up your state's funding allocations.
- Review your state's 5 Year Plan.
- Type in your address on the National Broadband Map. Does it look right? How about the rest of your community?
- Review your state's existing laws using the State Legislative Spreadsheet.

Supplemental Slides

Broadband Internet is Essential for Modern Life

Role of connectivity
Access to high-quality, affordable internet is vital to the use of modern essential services

Education | Students can access online resources and practice with technology. Teachers can incorporate modern edtech tools. Parents can better engage with school systems.

Health Care | Patients can access care more regularly and with less friction. Doctors can care for more patients. Providers can reduce costs.

Government Services | The public can better access programs and participate in proceedings. Governments can communicate more effectively and streamline processes.

Employment | Employees can be happier, more productive, and have access to more opportunities and skill trainings. Employers can find better candidates and reduce overhead.

Average speeds have grown by over 8x since 2012

North America average fixed broadband speeds
Mbps

107

93

70

57

43

33

25

22

18

13

Fixed broadband speeds

0

2012   2014   2016   2018   2020   2022
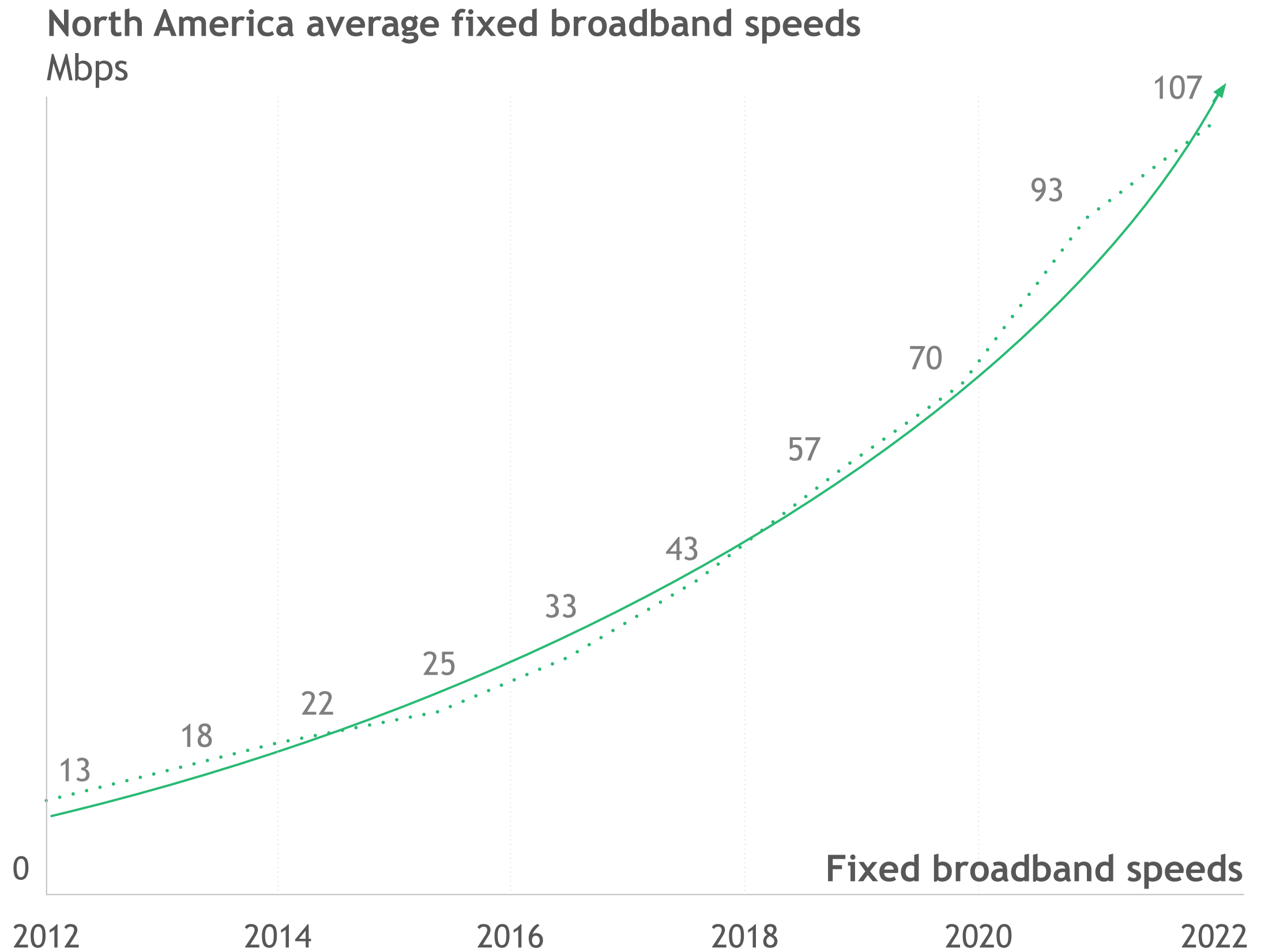
Assessment of Broadband Infrastructure Technologies

	Fiber-Optic	Cable/HFC	FWA
Typical download/upload speed	250–2,000/250–2,000 Mbps	10–1,500/5–100 Mbps	30–300/5–20 Mbps[2]
Typical one-time costs (per home)[1]	• Cost to pass: $600–4,000+ • Cost to connect: $300–400	• Cost to pass: $500–3,000 • Cost to connect: $200–300	• Base station: ~$125[5] • Cust. premises equip.: ~$400–1,000[5]
Ongoing annual operating costs	$53	$107	$95–450[6]
Scalability	**High cost of material/mile** with limited existing infrastructure, well suited for dense urban & suburban areas, tech supports long-term viability	**Moderate to high existing infrastructure available across urban,** suburban & some rural areas, upload speed ceiling requires upgrades over time	Easily deployable base station infrastructure, economical & scalable in rural and suburban areas
Benefits & limitations	⊕ Highest speed/capacity ⊕ Highest reliability, less susceptible to signal interference ⊕ Lowest latency (10–15 ms) ⊕ Lowest ongoing operating expense ⊕ Longest useful life (~40yr.) ⊖ Highest up-front capital expense, offset by longest (~40yr.) useful life ⊖ Most complex to deploy	⊕ Less up-front capital investment ⊕ High speed/capacity ⊖ Total capacity shared with other homes (can impact speed) ⊖ Continued investment required to scale capacity	⊕ Fastest time to deploy, does not require last-mile infrastructure ⊕ Lowest upfront CapEx requirements ⊖ Less reliable signal, dependent on distance, spectrum, foliage, etc. ⊖ Highest OPEX given electrical usage, network & maintenance costs ⊖ Highest latency (30–40 ms)