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Disaster Response & Recovery Working Group

BDAC PRESENTATION OCTOBER 2020

Chair: Red Grasso, North Carolina Department of Information Technology

Vice-Chair: Jonathan Adelstein, The Wireless Infrastructure Association

Charges from FCC

- "The Working Group will prepare a report documenting the various strategies and solutions stakeholders have developed and implemented to deal with the deployment-related challenges presented by the COVID-19 pandemic."

1. The challenges associated with shelter-in-place and stay at home environments;
2. Useful responses to a mass teleworking scenario, including any steps that can be taken in advance to prepare;
3. Best practices with regard to permitting challenges, including those caused by the physical closure of municipal offices, a shift to telework for municipal employees, and other complications arising from COVID-19 and similar emergencies;
4. Steps providers have taken to successfully address the physical impacts of the pandemic on broadband providers, including increased demand for bandwidth, limited staff availability, and limited ability to perform installations, maintenance, and repairs; and
5. Ways that technology could be used to mitigate these and other similar challenges in the future.

Subgroup organization

- Subgroup A – focused on end-user experience
  - Subgroup Leads - David Hartshorn and Todd Gourd
- Subgroup B – focused on the public sector
  - Subgroup Leads - Tony Fischer and Andrew Afflerbach
- Subgroup C – focused on the providers
  - Subgroup Leads - Melissa Slawson and Kayla Gardner
- Editors subgroup
  - Subgroup Leads - Chris Anderson and Mike Romano

Relationship to prior report

- Recommendation # 1 (PLAN 1) - Relationship Building and Maintaining Formal Relationships
- Recommendation # 2 (PLAN 5) - Government Approval Processes
- Recommendation # 3 (RESP 2) – EOC Coordination
- Recommendation # 4 (RCOV 1) - After-Action Assessments
- Recommendation # 5 (RCOV 3) - Information Sharing

Report Key findings

- Networks performed well overall during the pandemic
- Availability and adoption challenges were intensified
- Municipalities were able to ensure that permitting generally was not an obstacle
- The national response to the pandemic prompted rapid and significant social changes and will likely lead to long-term changes in broadband usage and adoption

Networks performed well overall

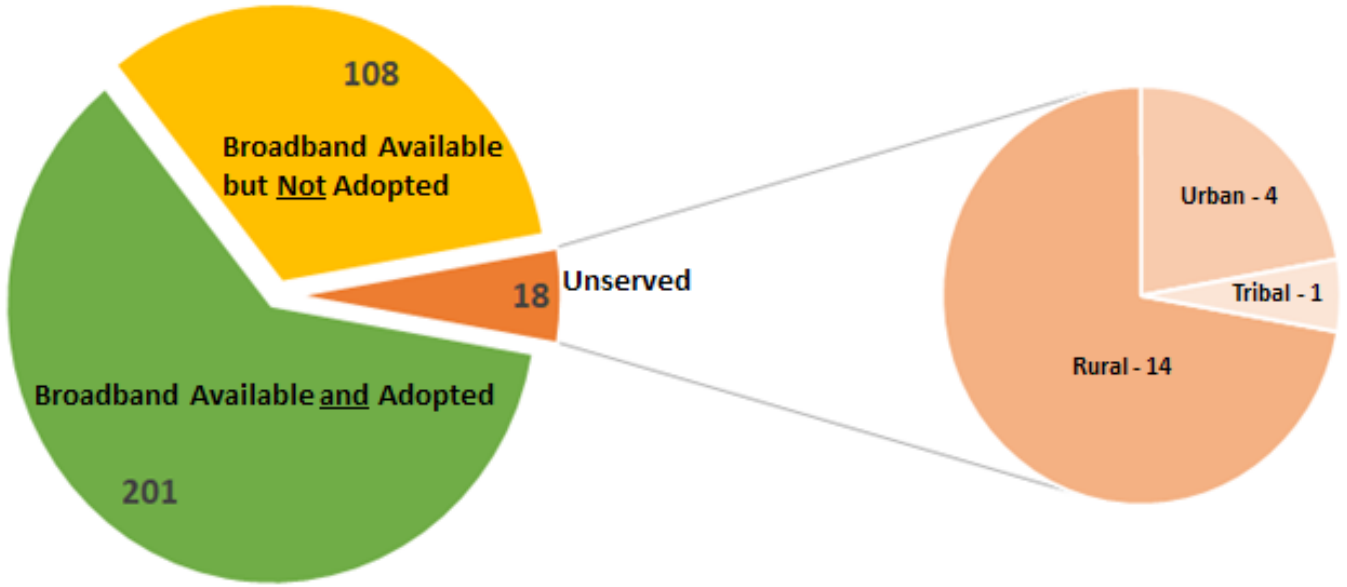
- Usage increased quickly and substantially
- Location of usage shifted
- Video conferencing and other applications shifted demands
- High performance of the networks resulted from several key factors:
  - Continuous investments made by providers
  - Network engineering to handle peak demands
  - Technology advancements
  - Additional spectrum made available by the FCC

Availability and Adoption

- Availability – the lack of connectivity for users to participate as needed in teleworking or remote learning functions
- Adoption – the circumstance in which connectivity exists at a given location but the user does not subscribe.
  - the monthly cost of the service;
  - the cost of an internet capable device;
  - knowledge of how to use increasingly complex devices and services;
  - lack of relevance from the user's perspective.

Relative Scope of Adoption and Availability Challenges

(Data in Millions of Population)



Source: Federal Communications Commission 2020 BROADBAND DEPLOYMENT REPORT, Adopted: April 20, 2020 / Released: April 24, 2020, Figure 1 - Deployment (Millions) of Fixed Terrestrial 25/3 Mbps Services and Figure 11 - Overall Adoption Rate for Fixed Terrestrial Services at Different Speed Tiers https://docs.fcc.gov/public/attachments/FCC-20-50A1.pdf
Data vintage year end 2018 for 2020 report. Numbers may not total due to rounding.

Availability and Adoption

- Increased availability increases the need to address adoption
- The pandemic presented a change in adoption criteria
  - Government functions that went solely online created a new “need”
  - More data being used by more people from the same location
- Identified need for funding to address availability AND adoption

Government continuity

- Examples of local government hurdles
- Changes to public meetings
- CISA guidance and NCC Access Letters

Pandemic prompting changes

- Discuss remote work, distance education, and telemedicine changes
- Long term changes in office space and home office needs
- Pandemic is still on-going and a new normal is hard to define

Section 4 Recommendations

- 4.3.1 Take Steps to Improve Broadband Availability
- 4.3.2 Take Steps to Improve Broadband Adoption
- 4.3.3 Implement Distance Education Best Practices
- 4.3.4 Implement Virtual Workforce Best Practices

Section 5 Recommendations

- 5.3.1 Establish Non-Emergency Permitting Practices that can Transition to Emergency Situations
- 5.3.2 Identify Necessary Staff and Resources to Transition to Emergency Permitting Processes
- 5.3.3 Foster Good Relationships and Communications with Other Stakeholders
- 5.3.4 Implement Steps Prior to the Pandemic or Related Emergency

Section 6 Recommendations

- 6.4.1 Consider Additional Expedited Use of Special Temporary Authorizations
- 6.4.2 Use Pandemic Response Funds Flexibly to Address Availability and Adoption Issues
- 6.4.3 Provide More Effective Coordination and Communications with Respect to Access Letters
- 6.4.4 Continue Collaboration and Coordination Between Providers and Federal Stakeholders
- 6.4.5 Implement More Effective Use of ESF#2 Communications
- 6.4.6 Update Emergency and Disaster Response Plans and Activities
- 6.4.7 Continue Sound Traffic Engineering Practices to Manage Network Traffic

Future Technologies

- Software Defined Networking and Network Function Virtualization
- Innovation in Installation and Repair Practices
- Artificial Intelligence and Machine Learning
- Technologies for Additional Capacity and Connectivity
- Effective Use of Wireless Emergency Alerts

Discussion, Question, Comments