



Connecting Communities

User research & redesign of the Broadband Connectivity Assessment Tool



The Broadband Connectivity Assessment Tool (BCAT)

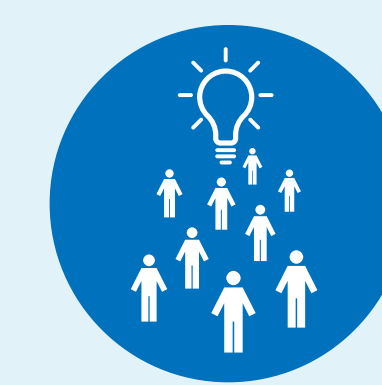
The BCAT is an online tool designed to support communities in their local broadband planning efforts. It was developed by the National Telecommunication and Information Administration and their BroadbandUSA initiative, with input from local and state broadband leaders, advocates, and industry members.



Document local knowledge & compare to federal data



Identify access & infrastructure issues



Build a dedicated community broadband team



Prepare community for advocacy



Support adoption & inclusion efforts

BCAT 1.0 Beta

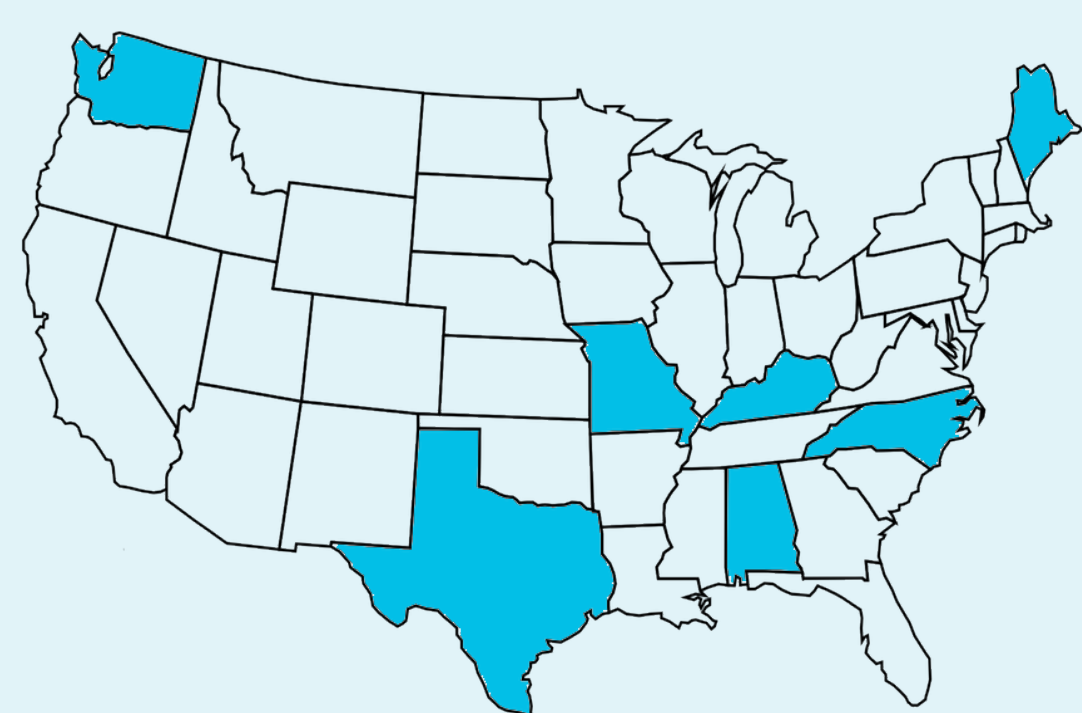
The first version of the BCAT had 3 major themes, with 160 questions total:

- Access
- Infrastructure and Availability
- Adoption
- Inclusion and Skills
- Community
- Leadership and Context

Who might be on a BCAT Team?

- Government employees
- Librarians
- Local ISPs
- Business Leaders
- Educators
- Emergency Responders
- Medical Professionals

In May 2017, BroadbandUSA launched a beta pilot of the BCAT 1.0. It was tested with teams of up to 12 people in 15 locations around the country.



Less than half of participating teams completed the assessment.

User Research

Our challenge was to discover what worked, what did not, and how we might use our findings to improve the BCAT experience.

We conducted 10 semi-structured interviews (both team leaders and participants) with 11 participants from 7 communities.

All of the users we interviewed believed in the goals of the project and felt the effort required by the tool was worthwhile.

However, there were challenges with the assessment experience that led to decreased engagement or even abandonment.

Redesign of BCAT 2.0

Starting with our requirement document translated into user stories to give them a more human-centered focus, we created a new design for the tool. This included a restructured information architecture, a redesigned and more intuitive user experience, as well as the introduction of a consistent visual style guide.

Defining Requirements

We used affinity mapping to understand emergent patterns in our data.

Once we identified our key challenges, we came up with design recommendations to help address them.

Challenge	Solution
Bandwidth intensive	Make assessment downloadable (.doc, .pdf, .txt)
Incorrect federal data	Help communities gather their own data
Final report was too long	Support team leaders in creating an executive summary
Assessment was too long, repetitive	Offer multiple completion paths Group related questions together Eliminate or consolidate repetitive questions
Questions are difficult to understand	Determine target audience for each question Decrease the reading level
Team leader has to 'nag' participants	Automate reminders Make it easier to monitor progress Celebrate completion of each section
No way to gather feedback from members outside of the main team	Allow team leader to determine team size Resources on gathering data Users can upload data
Rural vs. urban communities have different priorities	Pathways allow for flexibility to focus on what is important to the community

