

## Civic Engagement in Rural Broadband Deployment

Orange County is predominately a rural community that has limited high-speed broadband availability. Currently private sector broadband companies are unable to provide affordable, high-speed broadband service due to large upfront capital expenses with a relatively small potential customer base for producing profitable revenue. Orange County residents, however, are increasingly demanding access to affordable and reliable high-speed broadband. In addition, the Board of Supervisors, the Orange County Broadband Authority (OCBA) and County staff recognize the inescapable need to use broadband to deliver efficient and effective local government services and promote economic development.

In order to address the demand for high-speed broadband, the Broadband Authority is using a multi-faceted and collaborative approach. In addition to partnering with the School Board to leverage E-rate funding for the backbone of the system, the Authority is working with its towns, neighboring counties, interested Internet Service Providers (ISPs), other large institutional users of the future system, and finally with the citizens themselves to design a system that will optimize affordability and reliability for all stakeholders.

In order to obtain input from citizens directly, the Broadband Authority launched an on-line broadband availability survey to ascertain where broadband service is and isn't within the County from a citizens' perspective. The survey was advertised through the local paper and communicated through various civic groups, news releases and other channels of communication to reach as many Orange County residents as possible. Data from the survey feeds directly back into the County's ArcGIS Online Organization (cloud-based) which allows County GIS staff to present "live" data accordingly to the Broadband Program Manager and the Broadband Authority. As of August 22, 2019, over 600 County residents have responded and 88% say they are dissatisfied with their current connection. Only 12% of respondents have internet speeds of greater than 25 megabits per second and are satisfied with service, and 25% say they do not have any internet at all. Below is a three-month summary of the survey results.

Responded	645
Measurable Responses	608
<b><u>Service Speed</u></b>	<b><u>Percentage</u></b>
No Internet Access	25%
0-10 Mbps	38%
11-25 Mbps	16%
>25Mbps and not satisfied with service	9%
>25Mbps and satisfied with service	12%

Thanks to the interest and engagement of Orange County citizens in the broadband project, OCBA has been able to use the survey data results to develop 13 areas that are unserved and/or underserved areas of the County. OCBA is in the process of prioritizing each service area, determining funding sources and developing a master schedule for its broadband initiative. Using the survey data, the GIS Department has been able to create several hypothetical scenarios to consider construction, coverage and costs for various potential routes. The survey results provided valuable insight which has significantly impacted OCBA's decision-making and planning process and will be particularly helpful in pursuing a variety of funding opportunities for the project such as the Virginia Telecommunication Initiative (VATI) grants.