PAGE 1 Introduction:

- My name is Dave Wolff . I was born and raised in Saranac Lake and have retired back to Saranac Lake after a 31 career with IBM. I'm a board member of AdkAction and Chair of its Broadband Committee.
- This can be a very complex subject. During my oral testimony, I will try to hit the high points contained in the 7 pages that I've given you today.

Objective:

- At AdkAction, our broadband objective is to ensure "**100@100**". By this we mean that 100% of the households in NY should have access to broadband speeds of at least 100 Mbps.
- We should be able to do this. With government help, my grandfather's generation connected everyone to electrical lines in the '30's and my father's generation connected everyone to phone lines at mid-century. Its now time to connect every household in the state with broadband fiber or cable.

Background:

- By way of definition, according to New York State, any household with access to less than 25 Mbps is **unserved** and any household with access to between 25 and 100 Mbps is **underserved**.
- Per the Broadband Program Office (BPO), at the conclusion of the New NY Broadband Program and the Spectrum 145,000 address network build-out, approximately 99% of the households in the state will have access to at least 100 Mbps broadband speeds. The remaining 1% will continue to be 'unserved/underserved" with the vast majority located in rural areas, areas in most need of economic development.
- The rest of my testimony will focus on how to identify and quantify the remaining unserved/underserved households so that we can estimate the cost to upgrade them to at least 100 Mbps. We need to know where they are to estimate the cost, **something that sounds simple but is now very labor-intensive.**
- There are two categories of unserved/underserved.

Please go to PAGE 2 **The 1st category of unserved/underserved households are made up of HughesNet awards. This page shows a map of NY with the census blocks awarded to HughesNet outlined in canary yellow.**

- The HughesNet awards are good news and bad news. The good news is that the over 70,000 households eligible for HughesNet service will now be able to get broadband service. The bad news is that it is satellite service at 25 Mbps download with data caps which mean that the 70,000+ households will remain technically underserved.

Please go to PAGE 3. I will now focus on the 2nd category of unserved/underserved households – those households that lie beyond Spectrum's network boundaries in its rural franchises. An online GIS application has been developed to help identify this category of unserved/underserved households in the Adirondacks. Pages 3 and 4 explain the application, pages 5 and 6 show an example of how to apply it.

- The application starts by county, on the left, overlays state forest land in the middle, and adds the color-coded census blocks identifying areas awarded to providers on the right. These are screen shots from the application.
- The uncolored area within Spectrum franchises are then the areas of focus for detailed analysis by local officials with knowledge of the addresses in their town.

Please go to PAGE 4 Continuing with the GIS application one can drill down to the local 911 address level – Here you see 3 screen shots to show the progression from Franklin County (on the left) to the Town of Harrietstown (a Spectrum franchise town -- in the center) to the addresses in my neighborhood around Lake Kiwassa (on the right).

- At the Lake Kiwassa level, you see that all 911 addresses have been plotted. The objective then becomes to determine where does the Spectrum network end and which households will lie outside the network boundary.

Please go to PAGE 5 With the GIS application as a base, this page shows how someone with local knowledge can use it to highlight unserved/underserved addresses that lie outside the boundary of the Spectrum network in the area.

- Because I live in the area, I know that addresses on the western side and the southern outlet of Lake Kiwassa lie outside the Spectrum network – the bronze ellipses show the unserved addresses in question.
- I then verified this using the Spectrum online address lookup function. As of September 11th it showed that the addresses in the bronze ellipses were not included in Spectrum's future build-out and therefore they would remain unserved.

Please go to PAGE 6 In most rural towns, there is seldom more than one wire-line provider outside the population concentrations in town villages and hamlets. In rural towns with Spectrum franchises, that is usually Spectrum. As a result, there is generally only one cost-competitive option for the unserved/underserved households beyond the boundaries of Spectrum's network in a rural town. This situation can be highlighted via the GIS application.

- The GIS application screen shot on page 6 shows the Lake Kiwassa neighborhood as well as a portion of the nearby Village of Saranac Lake, including the addresses located in the two bronze ellipses that border Lake Kiwassa which lie beyond the boundaries of Spectrum's network.
- Because I live in the area, I know that the closest wire-line competitor's broadband network boundary is more than two miles from the unserved addresses in the two bronze ellipses. As such, Spectrum is the only wire-line provider that could provide service to the unserved addresses in the bronze ellipses at a competitive cost. In other words, **Spectrum has a defacto monopoly on the unserved/underserved households in its rural franchises.**

Please go to PAGE 7 **Summary**

- To achieve our goal of **100@100**, we need to identify and count the 1% of the households that will remain unserved/underserved at the conclusion of the New NY Broadband Program (Year-end 2019) and the Spectrum 145,000 address network buildout (September, 2021).
- You can help in the following ways:
  - Fund a statewide effort to replicate the GIS approach being used in the Adirondacks across the remaining rural towns in the state. We estimate the cost of the application to be $250,000 to cover all remaining rural towns. With just this, a great deal of manual effort and local knowledge is still required.
  - Request of the PSC to require Spectrum to make available information on where its network ends, by street, by town, within its rural franchise areas. Please note that we are NOT asking for any confidential subscriber information, just for the end points of Spectrum's network by street. Using information that Spectrum has, this dramatically reduces the complexity and local effort required.
  - This data would enable local officials to identify and quantify the unserved/underserved addresses that lie beyond Spectrum's network boundaries, data that is crucial in determining how much funding will be needed to achieve **100@100**.
- And achieving **100@100** would make NY even more of a leader in addressing a major limiter to economic development in its rural areas.
- THANK YOU!