An ADTRAN White Paper

Work From Anywhere Today's Necessity

Building the 21st Century Network

Doug Mohney, Principal, Cidera Analytics

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"By and large, I think the company embraced work from home 100 percent, I think the employees embraced it and I think it was very successful."

John Greene, CEO, New Lisbon Broadband and Communications Work from Anywhere (WFA) has become an essential part of today's society. For many, WFA is a requirement, initially driven by COVID-19 restrictions and now embraced as a key tool expected to remain in businesses of all sizes. WFA provides employees and businesses with greater flexibility and most with greater productivity as they navigate a balance between too many virtual meetings and keeping everyone informed.

But WFA isn't simply a business tool providing work force flexibility and increased productivity but is increasingly viewed as an economic development platform, with states offering financial incentives for remote workers to join their communities, ditching crowded cities and urban areas for front porch access to open spaces, a more comfortable and affordable lifestyle, and an escape from traffic jams.

At least 15 areas in the U.S. were offering up to \$20,000 in cash and other incentives for mobile workers to relocate, according to a July 2021 Business Insider story. Tulsa, Oklahoma was offering \$10,000 towards a down payment on a home while Claremont, Minnesota provided free residential lots. The State of West Virginia offered up to \$12,000 in cash to move to Morgantown while the Northwest Arkansas Council was trailing \$10,000 in cash, plus a bike or annual membership to a cultural institution.

New home construction since 2020 has grown 15 percent with homeowners moving to "exburbs" hours away from urban centers, the New York Times reported, with affordability and more living space driving relocations. WFA policies and available high-speed broadband enable municipalities to attract workers directly, turning rural townships into boom towns.



Even after companies reopened offices in 2021, many have retained their WFA policies.

WFA and its various tools has also opened the traditional framework of how smaller telephone carriers run their businesses. Once centralized operations can be conducted on a distributed basis, saving travel time for face-to-face meeting, streamlining customer service calls, and opening additional options for customer relations.

Perhaps the biggest challenge for smaller carriers in embracing WFA is making sure employees have access to high-speed connectivity. Some will inevitably live outside of their employer's service territory and/or in an area unserved by fiber or high-speed wireless. Without sufficient access to high-speed bandwidth, video meetings conducted using Microsoft Teams or Zoom become challenging and VPN use for secure access to cloud resources becomes problematic.

While high-speed connectivity at the edge may be a challenge for some, smaller carriers have had little problems in increasing existing broadband connectivity, using existing fiber and interconnections to quickly turn up additional capacity within their networks and to the rest of the world. In many cases, moving to 10 Gbps or faster speeds was a matter of turning up another wavelength and adding a few interconnections at a meet-me-room to improve redundance and performance.



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Small telco, big results - New Lisbon

With a staff of around 20 people and two office locations in Indiana, New Lisbon Broadband and Communications (NLBC) delivers voice, internet, and digital video services to thousands of customers across six counties in East Central Indiana using a combination of fiber optics and a fixed wireless network. NLBC had little need for work-from-home policies and remote videoconferencing prior to COVID-19 with only a handful of employees setup to do so, but CEO John Greene "pulled the trigger early" and closed the company offices to the public in March 2020.

"We had as many people as we could work from home," Greene said. "If we had people coming into the office they had their own private office. We had all of our technicians working from home, the only time they would come into the office is to come into the restock supplies and so forth. If customers needed to pick up or drop off things, we had a little alcove out in the business office with a table set up. They could come in and drop off modems if they were disconnecting service or we would have the modems preconfigured for them if they were setting service up, that worked out real well."

NLBC was able to use IP phones and move them into employee homes to provide seamless voice services for internal and external calling over its business voice system. The company's cloud-based BSS/OSS system encompassing accounting, billing, and customer care was accessible via VPN for those employees who were on the carrier's fiber network. On the network side of the company, technicians could remotely monitor and adjust services as required using ADTRAN's support software and the company's wireless vendor solution.

"We didn't have a whole suite of [software] products," said Greene." It's just kind of a hodgepodge." The carrier used a mixture of Microsoft Teams and a Zoom Business account for meetings, with Zoom the more flexible option and the building block for board meetings. "All of our board meetings went 100 percent online virtual," he continued. "We'd have the board members, plus staff, plus outside guests, so we had the ability to get 15 to 20 people on those meetings at one time and built out three new video conferencing locations within the company. It's been a real good thing moving forward now that's we're back to doing live board meetings, we can have people from outside or a board member that's out of town and instead of them having to drive all the way out to New Lisbon, we can send them a Zoom invite."

NLBC reopened its offices to the public in June 2021 but has no plans to get rid of WFH. Instead, Greene plans to formalize it. "We're working on a policy to establish some benchmarks, so if you are going to work from home here are the minimum requirements that you're going to have to do," he said. "By and large, I think the company embraced work from home 100 percent, I think the employees embraced it and I think it was very successful."

One measure of success is NLBC's increased number of customers during the pandemic. "We were working harder than we've ever worked to hook up new customers. Quite frankly, we busted all kinds of records on the number of new installs that we did," Greene stated, with over 400 new customers gained from territory they had overlapping with the CLEC.

Customers also had little problems with NLBC closing its officers or the hands-off services the company implemented, but there are those who prefer the human touch. "As soon as we announced we were opening up June 1, we had customers coming into the office," Greene said.

Finding productivity balance – Ozarks Electric Cooperative

Serving over 80,000 residential, commercial, and industrial members in northwest Arkansas and northeast Oklahoma, Ozarks Electric Cooperative and its fiber subsidiary, OzarksGo, had little cultural investment in remote work. When the COVID-19 pandemic made in-person meetings too dangerous, company executives and employees had to adjust to remote work on the fly, finding the balance in virtual meetings to make sure everyone stayed informed.

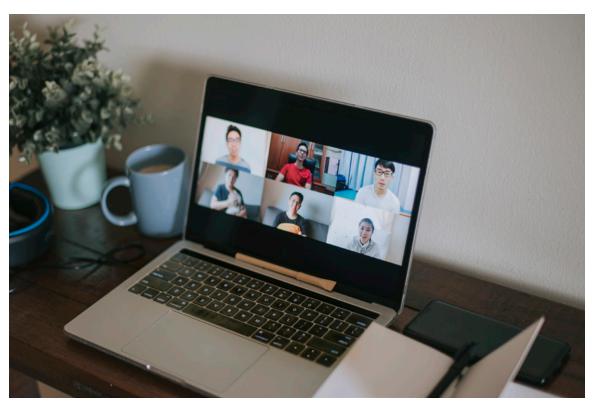
"Prior to COVID, we didn't have any online meetings," said Steven Bandy, General Manager for OzarksGo. "Pretty much all meetings were held in person, so the one good thing that came out of it was now we can have these meetings and not

leave our offices or living rooms. I can do most anything from anywhere."

Productivity in some areas went up, but the challenge for the organization was making sure everyone who needed to be informed about decisions was involved.

"Not having face-to-face meetings may have had some impact on communications, but for us, productivity went up because we didn't always have people traveling in to get to the meetings," Bandy said. "However, having face-to-face meetings is necessary to solve some problems because you can have everyone around the table who can analyze and start implementing to provide a solution."

Bandy said one challenge with weekly meetings was making sure the right people were "at the



Virtual meetings increased productivity and decreased the need to travel to onsite meetings.



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table." Sometimes, everyone who needed to be on a virtual meeting wasn't there, and information wasn't going to all the affected parties.

"On the management side, you have got to step up and bring more people into those type of meetings," Bandy stated.

Thanks to its extensive fiber infrastructure, Ozarks was able to quickly adjust to accommodate increased bandwidth demand. "In purchasing equipment, our guys did a really good job of staying ahead of the curve when COVID hit," said Bandy. "We had a pretty good surge in demand, so we had to increase our capacity on the network side."

The co-op surged into some areas to provide gigabit services and support Wi-Fi hotspots in communities, schools, and local community centers for online education efforts during the COVID lockdown. Ozarks upgraded some of its peering links to 100 Gbps to ensure efficiency while overall daytime network utilization shifted from commercial sites to homes. Due to the shift to work-from-home, many businesses also inquired about implementing VPNs early in the lockdown.

"We had our highest number of installs last year," stated Bandy. "That happened because the employees were efficient in what they were doing. We have really good employees and you have to turn them loose and let them go to work. Sometimes I think meetings slow people down."

Ozarks' continued development means more remote work in the future. "We're growing at a such a rate we are going to have to look outside of the box," Bandy said. With prospective employees looking for work from home policies as an option or requirement for accepting a position, Bandy recognizes the need to continue the practice.

"The pandemic and what came after has forced us as businesses to look at different ways to operate and I really don't think it's going to go away," said Bandy. "I think working from home and remote work are going to be a continued trend and even feed a bigger need for symmetrical fiber speeds."

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ADTRAN, Inc. 901 Explorer Boulevard Huntsville, AL 35806 256 963 8000

General Information 800 9ADTRAN adtran.com/contactus Canada-Montreal, Quebec

+1 877 923 8726 +1 514 940 2888 sales.canada@adtran.com

Mexico and Central America +1 52 55 5280 0265 Mexico sales.cala@adtran.com

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