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MICROSOFT AIRBAND INITIATIVE

In the summer of 2017, we launched the [Microsoft Airband Initiative](#), which brings broadband connectivity to people living in unserved rural areas globally. To eliminate the rural broadband gap, we brought together private-sector capital investment in new technologies and rural broadband deployments, with public-sector financial and regulatory support. We set an ambitious goal: to provide access to broadband to three million people in unserved rural areas of the United States by July 4, 2022.

To achieve this, we shared three major commitments when we announced the Initiative in 2017:

1. Providing direct investment to telecommunications companies for projects to expand access to broadband in rural areas of 12 US states within 12 months.
2. Investing in digital skills training for people of all ages in newly connected communities.
3. Offering royalty-free access to Microsoft's patents and sample source code related to TV white spaces (TVWS) technology, a wireless technology that leverages unused broadcast frequencies.

In October of 2019, we reaffirmed our commitment to global connectivity at the Devex Conference on International Finance. Through the international track of the Airband Initiative, we announced our goal to extend high-speed internet access to 40 million unserved people around the globe outside the US by July 2022. Our efforts are concentrated towards areas with significant unserved populations – initially, Latin America and Sub-Saharan Africa – that also have regulatory interest in solving connectivity issues. Extending internet access to 40 million people around the world in the span of three years is a big task – but it's informed by our ongoing work in connectivity, experience with partners and engagement from development finance institutions. In the past, we've done this work on a project-by-project basis spanning across Africa, Latin America, and Asia.

Like our work in the US, our goal is to empower local partners who know their communities' geographies and needs to solve their community's last mile connectivity challenges. Experience has taught us that diverse challenges require diverse solutions. What works in one part of South Africa may not be a fit for Ghana. A wireless technology or a business model that is suitable for connecting customers in one location might not be suitable for connecting customers in another location. Bringing broadband access to the world's unserved communities require much greater reliance on innovative technologies, regulatory approaches, and business models. Our experience has shown us that a multi-stakeholder approach is needed to close the connectivity gap. While we might go faster alone, we go much farther together. For this reason, these programs seek to combine our and our partners' expertise and assets.

Airband International relies on a four-part approach:

1. Removing regulatory obstacles to TVWS and other technologies that help our partners extend their networks quickly in unserved, predominantly rural, areas.
2. Partnering with local internet service providers (ISPs) to provide affordable, reliable internet services.
3. Enabling rural digital transformation in newly connected areas, with a focus on supporting agriculture, education, rural entrepreneurship and telemedicine, as well as off-grid energy sources where necessary in order to improve rural productivity and livelihood.
4. Building a larger ecosystem of support, with a focus on stimulating international financing, to scale connectivity projects beyond our own direct investments.

A lot has happened since we launched the Microsoft Airband Initiative. We've made important progress and learned many lessons. All our experiences have reinforced our belief that the rural broadband gap can be eliminated by 2022.

Early signs of success

Our projects around the world



At almost three years since launch of the Airband Initiative in the US, we are beyond the halfway point of the time we gave ourselves to meet our goal. We're moving full steam ahead in the areas where we have a presence and making steady progress against our three-million-person goal. We're now in 25 US states and territories and as of March 31, we've helped provide 1.2 million people with access to broadband in rural, previously unserved areas of the United States. This is almost double our total from December 31, 2019, and up from 24,000 people in the whole of 2018. As our partners' network deployments accelerate over the coming months, we will be reaching many more.

We also recognize that innovative technologies like TVWS can be incredibly useful in meeting rural connectivity needs at an affordable price. However, regulatory frameworks in many parts of the world have not kept pace with innovation. We've seen great progress from engagements to date. In Colombia, as we started our work to create a long-term solution for the Meta region, we sat down with the national spectrum regulator to understand the region's needs, existing regulations and to determine any gaps. In Ghana, we partnered with government officials to ensure strong regulations were in place to deploy long-term solutions such as TVWS.

Once these hurdles are removed, our partners around the world are poised to move quickly and deliver big results. BLUETOWN, an Airband ISP partner, is a connectivity and digital content service provider committed to making broadband connectivity more accessible. With regulations in Ghana now permitting access to the TVWS, BLUETOWN is on a path to bring affordable broadband access to almost 2 million people living in rural parts of Ghana who were previously underserved.

These large-scale gains in connectivity are not limited to smaller countries, nor does it stop at connectivity alone. In Colombia, with coffee company Lavazza, ALO partners, Makaia, and Microsoft's support, a small project connected two schools and five farms to broadband via TVWS technology – perfect technology for the region's jungled and mountainous terrain. It has continued to grow, and now includes an agreement between Lavazza, Microsoft and the National Coffee Growers Association of Colombia that will result in the rural digital transformation for half a million small coffee farmers in the region. Additionally, Airband has co-invested with ISPs in Colombia to extend broadband access to 6 million rural Colombians – that's 12% of Colombia's total population. This work was accelerated by a partnership with the Inter-American Development Bank (IDB). Additional financing is critical to bring these from small projects to scale. The partners invited IDB to join, and

this support has helped create results and a blueprint that can be showcased in other countries of the region to accelerate this work.

Resilience in the face of a pandemic

As we have seen, the economic and social ramifications of the COVID-19 crisis have significantly impacted those who do not have reliable access to high-speed internet (broadband gap). We have entered a time when access to broadband connectivity is a prerequisite for full participation in modern life. It is indispensable for distance learning and telemedicine and essential for business and e-commerce.

Microsoft Airband and its partners have taken various steps to address the broadband gap during the crisis, including:

- construction of hundreds of public Wi-Fi hotspots to provide community services including distance learning, telemedicine, telework, and filing critical forms such as unemployment applications and other necessary online activity.
- providing free access to informational health and education videos about COVID-19 prevention through partnerships with the WHO (Ghana).
- providing complimentary connectivity to quarantine centres (India).
- connecting 174 healthcare clinics, including video conferencing tools and inventory management tools to provide quality care to remotely located patients (Kenya).

Looking forward

To close the digital divide once and for all, we need to act to connect the world quickly. Through our work and our engagement, we hope to not just connect people, but provide a blueprint for other public and private sector entities to think about connectivity as a core part of their investments in health, gender equity, water, energy or any other core area of sustainable development.

There are too many things that divide us in the world today. The internet can bring us closer together, foster new understandings and connections and remove structural barriers to opportunity and equality. The Airband Initiative is focused on doing just that, and our commitment to work to ensure ubiquitous access to broadband is stronger than ever.

RESOURCES:

AIRBAND UPDATES:

High-speed internet — the linchpin for sustainable development

Last year, Microsoft announced its goals for the Airband Initiative in international markets. By 2022, we aim to extend broadband access to 40 million people around the world through our partnership model that pairs our expertise and funding with local entrepreneurship and connectivity expertise. With our partners, we are hoping to create a blueprint that others can follow and stimulate international investment to close the broadband gap.

<https://www.devex.com/news/sponsored/opinion-high-speed-internet-the-linchpin-for-sustainable-development-95998>

The path to prosperity through access to high-speed internet

Through partnerships and initiatives, Microsoft is committed to closing the digital divide once and for all by connecting everyone in the world to the internet.

<https://blogs.microsoft.com/on-the-issues/2019/10/07/the-path-to-prosperity-through-access-to-high-speed-internet>

How high-speed internet is reshaping lives in rural America

In rural America, access to high-speed internet is fundamental in an increasingly digital and connected world and is something many living in urban areas take for granted.

<https://blogs.microsoft.com/latinx/2020/01/08/how-high-speed-internet-is-bringing-people-out-of-the-dark-ages-to-reshape-work-and-life-in-rural-america/>

2020 update on the Airband Initiative in the United States

“At two and a half years since launch... we feel good about the steady progress we’ve made,” says Shelley McKinley, Head of Technology and Corporate Responsibility at Microsoft.

<https://blogs.microsoft.com/on-the-issues/2020/03/05/update-connecting-rural-america/>

AIRBAND TECHNOLOGY WHITEPAPER:

A combined approach to broadband coverage

To deliver cost effective broadband access to rural areas, network operators must leverage a mix of technologies like TV White Spaces, fixed wireless, and satellite coverage. This technology model can reduce both the initial capital and the ongoing operating costs of broadband networks.

<https://aka.ms/ruralbroadbandtechnologies>

AIRBAND ISP PROGRAM:

We invite all Internet Service Providers to join the Airband ISP Program – take advantage of preferential pricing on hardware and telecom infrastructure to reach more rural customers faster and more cost-effectively.

<https://aka.ms/airbandisp>

PARTNER CASE STUDIES:

AirJaldi

With a mix of technologies, AirJaldi has created a series of hybrid networks to provide affordable and reliable internet to some of India’s most underserved regions.

<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE2Owvf>

Connecting Colombia

Italian coffee company Lavazza, energy and agricultural innovator ALO & Partners, and the Colombian nonprofit MAKAI A teamed up to connect rural, coffee-growing areas of Colombia. Internet access was delivered via TV White Space technology and has already connected two schools and five farms.

<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE2MNfl>

New Sun Road

New Sun Road provides electricity, internet access, and education in remote environments to help alleviate the effects of climate change and global energy poverty.

<https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE3azSY>

PARTNER VIDEOS:

<https://aka.ms/airband> (no direct link to videos)

Closing the global digital divide

99 percent of the unconnected are in markets outside the United States, and most of those people are in Sub-Saharan Africa and Asia. Learn how we are working with partners in Kenya to improve rural productivity and livelihood in communities that would otherwise not have access to these technological opportunities.

Empowering rural Kenya with affordable internet

Mawingu Networks provides affordable internet connectivity to help communities in rural Kenya gain access to online public services and digital economic opportunities