



Connecting rural India to economic opportunity

AirJaldi
India

In a village at the base of the Indian Himalayan foothills, home to farmers and Tibetan refugees, Ankush Rana saw a business opportunity. Thanks to consistent internet connection provided by AirJaldi, Rana started an eco-tourism company, a coworking and co-living space, and a hostel. Because of the opportunities the internet has afforded them, his 12 employees were able to move back home from their jobs a full day's travel away.

In much of rural India, internet connection is only partially available. One town might have fast and reliable connectivity while others nearby have patchy and unreliable access. This haphazard reality grated on Michael Ginguld, a co-founder and member of the team that created AirJaldi, an internet service provider (ISP) in India. The company, then, began investing in scalable solutions to expand connectivity—and the opportunities it offers—into rural India.

Consistent, affordable, high-speed internet fosters economic growth

“Development usually looks at three insufficient conditions: water, electricity and roads,” explains Ginguld. “When you look at cultural enhancement, conservation and livelihoods, IT and connectivity is a strong fourth leg of development.”

For Ginguld, internet is critical for advancement, not just a nice-to-have once you establish potable water systems and other infrastructure.

The catch: Although the communities AirJaldi serves want high-speed internet for the same reasons as the rest of the world—to connect with others, learn, grow their business, and access entertainment—the average medium-skilled worker in India earns less than \$100 USD per month. “We’re working in tight margins of average revenue per user,” Ginguld says. “We have to consider what consumers can and are willing to pay, what infrastructure already exists, and what we as a provider can offer.”

74%

The percentage of people in India who do not have internet access

17

The number of networks AirJaldi operates within 6 Indian states

400,000

The estimated number of people who use the internet through AirJaldi accounts

10x

The anticipated growth in people who will be connected to the internet through AirJaldi within 2 years, through the partnership with the Microsoft Airband Initiative

Microsoft Airband Initiative speeds expansion of connectivity

AirJaldi began partnering with the Microsoft Airband Initiative in 2016, when it received a grant to expand its work bringing internet access to more people in India, primarily in underserved rural areas. The ISP provides broadband via Wi-Fi and fiber, and once it gets the go-ahead from the Indian government, it will add TV White Space (TVWS) to the mix, which will add a last-mile solution.

“This partnership has given us the resources to expand our work,” Ginguld says. “That’s no small thing.”

Big data analytics improve user experience

With the help of Microsoft experts and the cloud platform Microsoft Azure, AirJaldi is beginning to analyze vast swaths of data about how schools, businesses, hospitals and homes are using the internet. Artificial intelligence allows AirJaldi to recognize trends in usage, from what time of day people upload and download to where they are located. Azure also helps AirJaldi’s technical team to monitor and manage their networks and relays.

With these insights, AirJaldi engineers will be able to fine-tune their network management and bandwidth allocation—and thereby improve their services.

Microsoft partnership speeds new relationships

AirJaldi has been providing internet access in India for more than a decade and is relatively well known in the internet provider and related governmental circles. Yet as the ISP branches out into other opportunities, “the affiliation with Microsoft affirms the nature and seriousness of our work,” Ginguld says. “With every new conversation, we get to the crux of our discussion faster.”

Expertise to broaden services

AirJaldi is extending its work beyond internet connectivity into services that will benefit consumers once they get online. One future avenue: Precision agriculture, where low-income farmers in rural India will be able to use internet-connected devices and AI predictions to increase yields and income. AirJaldi will be working with Microsoft experts in this field, which is especially important in improving food production in the country.

Ginguld is the first to acknowledge the scale of the work that remains to connect communities in rural India. After all, creating a series of networks that provide reliable and affordable internet to people who live in poverty has stymied other rural ISPs. Yet Ginguld says that the opportunities to grow economies and spark entrepreneurship are too great to ignore.

And whenever he needs a bit of inspiration to push through the challenges of being a trailblazer, he can always think of Rana and the hundreds of thousands of others who use AirJaldi-provided internet to build businesses and create a better life.

The Microsoft Airband Initiative partners with equipment makers, internet and energy access providers, and local entrepreneurs to make affordable broadband access a reality for communities around the world.

