

# Wireless Broadband - My View

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Everest Link got our sort of strange start back in 2000, but before I tell the story of my company, I'd love to describe the terrain of my country. Nepal is a place where it's not easy to



get around; the only modes of transportation are either helicopters or your feet, and the only medium of communication was the written letter until the year 2000. Let me tell you how we evolved from letters to wireless broadband all at once.



In 2000, my mother was diagnosed with breast cancer. To get her treatment from a good medical facility, I had to fly her down to the nearest city and then down to India. My sisters were living their normal lives in Nepal, but once news of our mother's illness reached them, they left everything back home – even closed their business – to join her in India. They didn't know what else to do with such limited opportunities for communication.



**TSERING G. SHERPA**

My mother never got better, finally passing after a long fight. At that moment, what I thought was, "Okay... my sister sustained a loss to help our mother – honestly a year's loss of business – because of inadequate communication. Not everyone can afford that. So I took it as a call to action. I would start something that would help people avoid having to face the same problem. So back in 2000, with a single reset and 128 kbps as a bandwidth, we started our network in Nepal. Our mission was to connect remote villages that lacked communication.

At first it was going well, but suddenly my country was overwhelmed with political unrest. We had to abstain from providing service, going on hiatus for eight years due to threats from extremists.

We revitalized Everest Link in 2014 with a fresh, broader mission: to set standards for ecological, economical, and reliable modes of direct communication. And we would start by conquering the rough Himalayan terrain.

As you can see pictured, our head office is right in the clouds and mountains. It took us couple of attempts to get established, beginning with low cost Wi-Fi equipment, and then progressing from 802.11b to g. Now, Cambium cnPilot™ equipment has solved our problems.

### THE HIMALAYAN ENVIRONMENT

The Nepal I call home is entirely remote. To buy a pack of cigarettes, you may have to walk for three days.

The Himalayan terrain is always an obstacle; in such high altitude, you can't breathe, you can't walk, you just can't go straight. I mean, it's going to take you time to get anywhere. It may take six hours to travel a kilometer in certain areas. Another challenge is the terrain – there are no cars that we can drive on this topography. Walking is the only option, because it's always just steep jagged hill after steep jagged hill, with a lot of rocks, glaciers, and ice.



It's also hard to find experienced technicians. If I say "Any of you guys interested going up there?", most people would say "No." – just for a trial, maybe, but to make this a part of your daily life, it's hard. So we have to find particular technical people who are really young, energetic, and willing to work in such terrain. Now we have the right team.

In addition to the professional knowledge, we teach our technicians wilderness survival skills. Frequently, when a technician is dispatched to work at a certain station, a sudden storm or snowfall can trap them in the middle of nowhere.

Another challenge is power. The only option is renewable energy. But all the solar panels and devices have to be carried by either people or pack animals to get to a particular site. You can see an example in this picture: equipment being packed in to be installed in the middle of nowhere with solar panels. The more compact the device is, the less power it requires, and the more reliably it performs, the better it is for us.

### RELIABLE CONNECTIVITY

We need equipment that works. Given our terrain, there are areas where to check on your system, it may take a couple of days of hard working just to reach the area. The PTP 650 wireless backhaul provides us high throughput and perfect reliability for our network infrastructure.

Today, we've connected over 200 hotspots in more than 40 villages. We connect 34,000 locals and over 40,000 tourists annually, which is a new record for tourism.

We also connect more than 1,600 climbers on the various mountain including Everest. Our goal is to give them a perfect connection. As I said, we started with a VSAT with 128 kbps. Now we offer 100 - 200 Megs over links of 80 - 90 km across the toughest terrain in the world.

With the PTP 650 we have a solid link all the time. At the moment, we're connected to the Everest base camp. There, at 5,320 meters altitude we have a solar powered cnPilot E500 outdoor Wi-Fi hotspot.

## EVEREST LINK CONNECTS A COMMUNITY

We are a very small company. The only source of income that comes to our coverage areas is through tourism. We have over 40,000 people coming for attractions and adventure-based tourism. So the local people have little huts and small houses to host the tourists three or four months of the year for climbing season.

To reconnect the stories of my family and my company – once my sisters left Nepal to go to the city during our other's illness, they never returned. Instead, they migrated to the United States and are raising their families there. Yet, our connectivity has kept us close as a family, which inspired me to extend that to our entire community in Nepal.

Everest Link's commitment to our community doesn't stop at providing the connectivity we need for the tourist industry. We've begun a distance-learning program in certain schools, because few teachers are available to go to remote Himalayan schools. This is another problem we've been able to solve with high-speed connectivity. To further support to the local economy, we've made each and every hotel in our area, every business entity, a stakeholder – making Everest Link a community company at the moment.



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