

SSVC Media Innovation & Ruckus Provide Connectivity as part of Disaster Relief

The Overview

In the aftermath of the worst natural disasters Nepal had faced since 1934, the country was shattered and in desperate need of reconnecting. SSVC Media Innovation was called on to venture into the most remote locations and install their MiPlayers with Ruckus technology, aiming to reunite lost communities with the rest of the country via line and locally stored media.

Location: Tatopani, Nepal

Systems Installed: Ruckus

Integrator: SSVC Media Innovation

Customer: Gov. of Nepal

The Challenge

After the earthquake of 2015, Nepal was already in a state of mourning for the thousands left dead. Then in 2017 the country was again at the mercy of the elements as monsoon season battered a country already on its knees. Villages were obliterated, homes and livelihoods destroyed, leaving thousands cut off from the rest of the country without assistance.

The Government of Nepal needed to reconnect their communities quickly, not only to return normality to those in need, but to give each of its citizens access to important political media in light of the upcoming general election—the first in the history of the new constitution. However, doing so without internet, or even a reliable power source, made an already challenging situation almost impossible.

But not for the MiPlayer.

No one else can do what SSVC Media Innovation does with their MiPlayer. The MiPlayer's ability to allow the delivery of streamed media to remote locations using WiFi networks in the absence of more standard connectivity options was perfect for the Nepali Government's needs. Their long-term plan was to install two MiPlayers in each of the districts throughout Nepal, aiming to connect the disconnected communities, starting with Tatopani.

Tatopani is a village sitting on the border between Nepal and China in the Sindhupalchok district. Now marketed as a natural hot springs destination, Tatopani was originally a larger trading post between Nepal and China. Border trade was closed after the earthquake of 2015, leaving the village not only suffering from loss of life and destruction of property, but loss of livelihood.

The problem grew worse when monsoon season washed away

the hydroelectric stations supplying power to the village, as well as the main Larcha bridge connecting them to other parts of the district and Capital. Not only did the storms turn the region into a mess of perilous landslide risks, but with modes of transport limited and lack of connectivity in the area, Tatopani was truly stranded in every way.

When SSVc Media Innovation arrived in Nepal, the team found themselves transporting their kit up a mountain on foot for miles, unable to continue by vehicle due to the damage to the region causing the roads to be unsafe and, in some cases, utterly destroyed. The nature of the project meant that they were flying blind without much information granted beforehand, so the team had to be prepared for anything. Site surveying, heatmapping and installation would have to be combined at the time and place, leaving little room for error.

All in all, Tatopani was in desperate need of a communications system, but the SSVc Media Innovation team knew it would never be a straightforward install project, and therefore had to be prepared for anything.

The Solution

Although SSVc Media Innovation knew they were running on minimal information, their many years of experience installing MiPlayers across the globe in the most remote locations had



“Every Nepal installation we completed was unique, requiring us to design and install a solution with little to no information beforehand. Challenging as that was, we were able to use the best kit for the situation every time with the help of Purdicom”.

Nick Beer, Chief Development Officer at SSVc Media Innovation



equipped them with the professional experience to know how best to approach this project.

They contacted Purdicom, their long-time distributor, and put their heads together to work out what products would be best suited for difficult terrain across long and short distances, that could also withstand volatile weather conditions and deliver reliable connectivity.

With Purdicom's assistance, SSVc Media Innovation devised that to create a link from one side of the village to the other, they'd require 2x Ruckus P300 Outdoor P2P bridges, 7x APs and a Zonedirector 1200, with additional switches, and the star of the

show—2x MiPlayers. The P300's were new additions to SSVc Media Innovation's toolbelt, recommended by Purdicom for this particular deployment, and assembly was quick in order to get the kit ready for travel as soon as was possible.

After securing the equipment and arriving safely in Tatopani in early November, the SSVc Media Innovation team got to work on surveying the area and agreeing where best to situate the P2P links. Tatopani has a population of around 3000 people spread across the river and up the mountain. In order to make sure the connection was stable, the team had to designate a building on one side of the village that would have line of sight to its partner across the river at a distance of 5km.

Negotiations allowed for the team to install on two buildings without problems, despite the issues surrounding the unconventional electricity supply to the village, as they'd been relying on battery operated generators that were unpredictable at best. Yet, despite all odds, initial testing revealed a practically interference-free signal that produced best in class wireless backhaul performance.

The Results

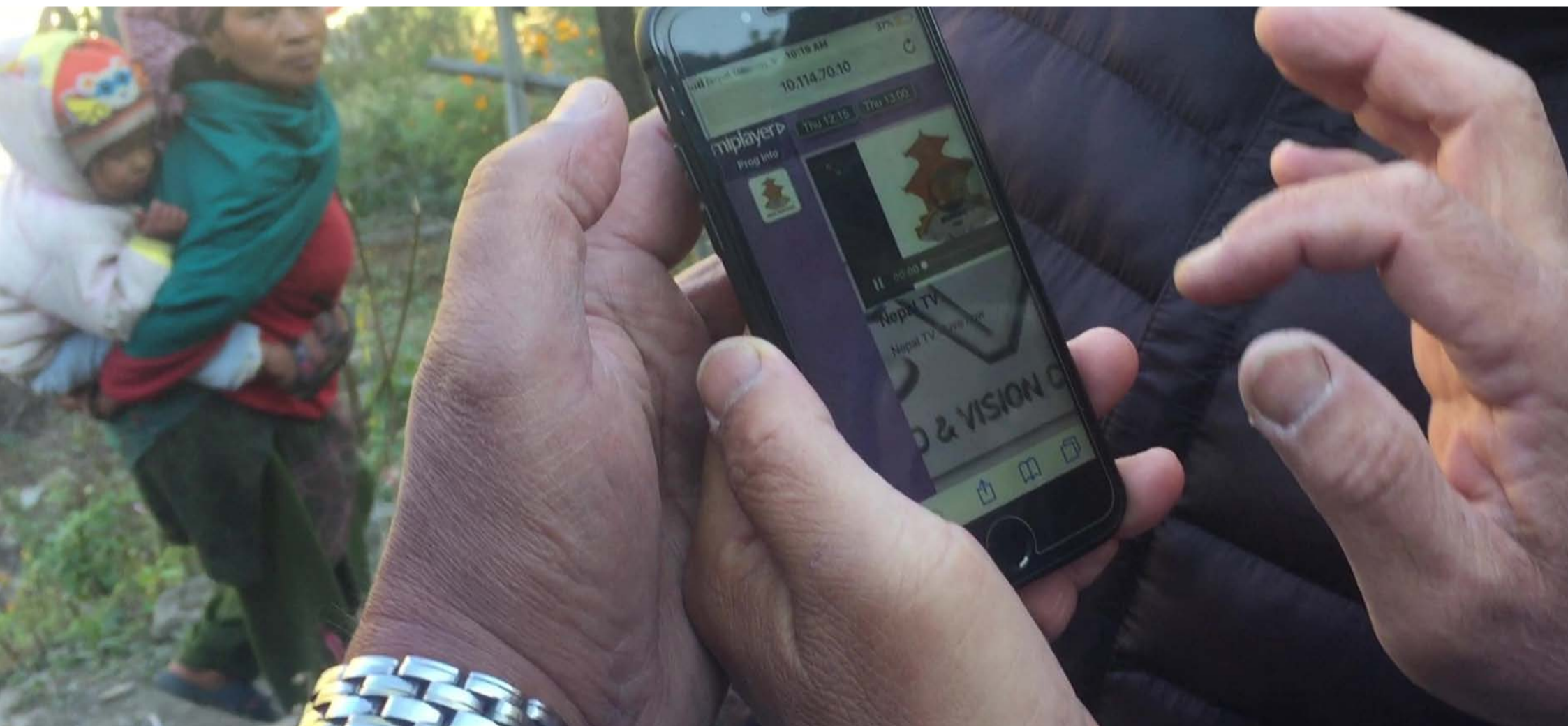
Six months on and the Tatopani installation is going strong. The Ruckus P300's ruggedised design specifically for outdoor conditions means that it's still standing, with no reported

downtime. The MiPlayer has been able to supply media in the form of video, audio and web access, as well as a specific community page in both English and Nepalese.

The opening up of communication to the rest of the country has made the return to normality for the people of Tatopani a much faster process. The phone culture in Nepal is a big part of their identity, and with connectivity returned to the area spirits and moral have hit new highs. The quick installation also meant that connectivity was returned in time for the elections, allowing the residents of Tatopani to participate in the historical event, and truly contribute to the future of their country.

And Tatopani is just the start. There are still a great deal more villages in need, and while no two installations will be the same, SSVc Media Innovation is ready to tackle each one with the same dedication that made the Tatopani installation such a success.

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