The people reconnecting those impacted by Hurricane Helene

On 26 September 2024, the category four storm Hurricane Helene made landfall and carved out a 500-mile (805km) path of devastation from Florida's Big Bend to the southern Appalachians.

Helene raged wildly across six states. Wind speeds of 140mph (225 kmh) were recorded and a storm surge of more than 15ft (4.6m) flooded communities. It was the deadliest mainland storm since Hurricane Katrina in 2005 with 250 lives lost, and nothing could have prepared the communities impacted for the terror and destruction that would affect their lives.

"Hurricanes don't normally affect the mountainous regions of North Carolina, so it's rare we see devastation there," Greg Hauser, first responder communications lead for North Carolina Emergency Management, says. "For the first time in my career, people in those areas were technologically cut off."

Western North Carolina is known for its crisp highland air and rolling mountains. Each year, visitors come to soak up its culture and history among its vast natural landscapes. However, in late September 2024 the region found itself grappling with the devastating aftermath of Hurricane Helene.

The storm shattered residents lives in a matter of minutes. It arrived suddenly with a surge of rising water, strong winds and cracked, collapsing roads – much of western North Carolina faced communication blackouts, power outages, fuel shortages and limited drinkable water. Steadfast bridges made to hold the daily influx of traffic were torn in half, power lines destroyed, fallen trees littered the cracked streets and the region's two rivers swept houses downstream, and with them, the possessions and memories of the people who lived there.

People in need couldn't reach 911, hospitals became inaccessible, families were unable to communicate with loved ones and radio frequencies went dark. Communities were cut off from one another and the world.

"Networks were down and over 1,700 miles (2,700km) of fibre optic cables were destroyed," Hauser recalls. "That created huge challenges for recovery teams trying to restore communications.

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Cisco Crisis Response – a team of system engineers, network architects, project managers, operations and logistic specialists – respond to partners and customers in need of communication aid during a crisis. During Hurricane Helene it responded to many requests including the North Carolina Emergency Management Agency, who they have a long-standing, formal relationship with. The agency requested their support in addressing communications needs across western North Carolina and Cisco Crisis Response dispatched its employees alongside its volunteers, to battle challenges and reconnect those affected.

"Cisco was key in helping us re-establish communications, especially for hospitals, pharmacies and clinics," says Bryan Baker, whose role was lead of the communication unit for the Durham Fire Department during the aftermath. "With everything digital now, most prescriptions now depend on

internet access. Cisco teams set up systems to get those facilities back online, so people could get vital medications again."

Globally, the frequency of natural disasters is increasing, making them a significant contributor to damage caused to towns and cities like Asheville. Not only do they cause widespread destruction, but the secondary effects, such as food and water shortages, disease outbreaks and job losses, are also devastating.

Cisco Crisis Response – Cisco emergency technology response team – is a specialised team of Cisco employees working to help communities effected by humanitarian crises and natural disasters. It works to provide secure, emergency communication services in times of emergency. In the wake of Hurricane Helene its connectivity support, financial resources and expertise played an important part in western North Carolina's first steps on its road to recovery.

"One [instance] that really sticks with me was reconnecting people who'd been completely cut off for days, even a week from their families," says Baker, whose role consisted of managing resource requests from various counties. "Many didn't need supplies, just a way to let loved ones know they were alive. We'd roll up with a communications device, and they could finally make a call home."

In the initial two weeks after the disaster cleaved Western North Carolina's infrastructure and spirits in half, Cisco Crisis Response spread its resources across emergency frontline deployments. Baker and his team would decide what was needed and how to get it there. He recalls, despite the ever-revolving door of requests, Cisco Crisis Response threw themselves into helping without hesitation. "I'd ask, 'What can we do to make it happen?' and the answer was never no," he says.

The storm swamped neighbourhoods, in just three days approximately 14in (35.5cm) of rainfall pelted the city, causing the rivers to swell to unprecedented levels flooding the city, making it difficult for aid to reach stranded residents. Cisco Crisis Response's team spent over 550 hours and travelled over 7,000 miles (11,265 km) in order to deliver critical equipment and services. The connectivity established allowed wider aid efforts – such as reconnecting the community to hospitals – to run more efficiently.

"Cisco Crisis Response have worked some of the world's toughest disasters, and they said this was among the worst they'd ever seen. It was frightening. But it was also comforting knowing they were there," says Hauser.

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This work is made possible due to Cisco Crisis Response's core team and the over 1000 trained employee volunteers who extend the workforce. Volunteers are deployed to both the front line and also provide remote support – from logistics managements, to working as couriers and setting up a virtual security operations centres to monitor networks.

Maria Callaghan, who has worked at Cisco for over seven years in cybersecurity, joined the Cisco Crisis Response team as a Cisco Crisis Response volunteer a few years ago. "It's easy to see the devastation

of disasters and feel helpless, but this program lets us take action and use our skills to support communities in need," she says.

To become a volunteer there is a specific process including online technical training, to physically and mentally prepare themselves for what they may encounter. Also, they must always carry a go-bag, equipped with essentials, so they can respond quickly when called. Whether it be managing logistics, setting up communication hubs or working on inventory and testing equipment, Callaghan assures they are there for whatever is needed.

"It was a full team effort," Callaghan says. "It honestly felt like something out of a superhero movie."

Through donations from Cisco, the Cisco Foundation and fundraising performed by its employees, Cisco raised and invested a substantial amount for Hurricane Helene's recovery efforts. In western North Carolina alone, over 120,000 homes were damaged, Cisco funded various home restoration projects including Habitat for Humanity, which in the past year has continued to help repair and build homes.

Cisco is not only dedicated to providing instant connectivity support, but it also ensures it helps across long-term efforts too.

Hauser continues to work closely with Cisco Crisis Response across various other collaborations, yet their partnership during the recovery process still holds significance. "Cisco provides incredible technology, but it's their people who make the biggest difference," he says.

"People don't always realise how much of this work happens behind the scenes. When we see rescues on TV, boats pulling people from floodwaters, helicopters airlifting survivors, that's heroic work, no question. But those operations rely on information and communications infrastructure. It takes a functioning network and coordination system to make any of that possible. Cisco Crisis Response are the heroes behind the heroes."