What happens when telecommunications fail during a disaster?

Hurricane Maria hit the Caribbean on Monday causing widespread damage throughout the US Virgin Islands, Dominica and Puerto Rico. Communications prior to the storm appeared clear and concise. Residents were warned to prepare and take shelter however, considering the damage left by Hurricane Irma just two weeks ago, the risk to lives and infrastructure was even higher.

Whilst news reports are showing the destruction from afar, one of the problems being faced by those affected in the Caribbean is a wide-scale loss of communications, meaning rescue operations and external aid missions are hindered, and communities face periods of time where contact with relatives and friends is impossible.

During a crisis, what are the repercussions of limited communications? Some communication outages can be repaired reasonably quickly by fixing damaged phone lines or restoring power to servers, however the long-term effects can be much more severe. If cables are damaged, major repairs can be needed which could take weeks or months to facilitate. The human effects of communications outages can also be damaging to communities by heightening a sense of panic. Whilst it's important that members of the community can contact their colleagues, friends and family; the relief effort of emergency services must be a priority and without consistent communications, these efforts can be negatively impacted or even made impossible.

In the business continuity and resilience sector, having back-up systems and data sets is one of our key drivers. By having multiple sources of communication, for example, wireless and cable, communities and organizations are more likely to maintain access to at least one source and reduce any backlog of communications, therefore increasing the speed and effectiveness of the response effort.

At present, disaster recovery efforts appear to be heavily focussed on organizations, human welfare and infrastructure. However, the loss of communications is a problem which could be avoided. With the emergence of new technologies and a deeper understanding of these technologies, it should be possible to safeguard communications against the effects of a disaster by prioritising the implementation of multiple communication methods before a disaster becomes a crisis.