

## **Aerial Platforms to Ensure Communications Reliability in Disaster Areas**

### **Abstract**

Wireless mobile networking technology can be used to reduce a negative effect that occurs in disaster areas. This study, will present an innovative technique via utilize a Low-altitude platform, in order to provide expanded coverage. There are still some challenges to be dealt with in the current manner, e.g., changeableness in direction, which can lead to the loss of a permanent connection between network node's deployments. Another problem can be attenuation in a communication channel due to bad weather factors. Aerial platform is a sky-base station that utilizes free-space optics (FSO) to connect network nodes in addition to meeting the demand of service quality to the "last mile." A new approach is used to connect several aerial platforms that are helpful in increasing the range of the network deployment. Therefore, the purpose of this study is to examine the performance of these platforms by connecting multiple-network nodes in various weather environments.

Keywords; Communication network, Disaster area, Free space optic, Low-altitude platform system, Mobile platforms