An Android-based Interface of Mobile Network for Real-time Field Survey and Ground Truth Missions

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Abstract— **Internet GIS and mobile GIS have been applied to civilian and military various applications. This paper reports how an Android operating system was successfully adopted to serve field survey and ground truth missions in military simulation and training research of Defence Technology Institute (Public Organisation) of Thailand. Real-time field survey and ground truth was made readily available for GIS researchers back in an office while a survey team was reporting from the field via a mobile network. This paper also demonstrates that the approach is further applicable to the institute's research that demands collaboration from many parties but limited access to military restricted areas is available to only some. Researchers with clearance then entered the areas and the images taken were uploaded online to open access to others with appropriate authorization. Comparison in terms of time and budget consumption is also illustrated to support the economic viability of the interface. An interface application on the field survey and ground truth of THEOS remote sensing is also identified as further potential study.**

Keywords: Android-based Interface; Real-time Field Survey; Real-time Ground Truthing; Mobile GIS