IMAGE NOTIFICATION METHOD FOR SURVIELLANCE SYSTEM

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This study aims to find a proper solution for security issue in transmission sites (BTSs-Base Transceiver Station). As NMI Communication coordinates transmission sites of Bharti Airtel Lanka Limited in Colombo and Negombo regions, there are more than 600 transmission sites that are coordinated by them using GSM (Global System for Mobile Communication) to transmit mobile voice and data services. To transmit mobile voice and data services from one Mobile Station to another Mobile Station, the transmitting signal has to pass through BTSs (Base Transceiver Station), BSCs (Base Station Controller) and MSCs (Mobile Switching Center). NMI communication has about 419 BTSs, 7 BSCs and 2 MSCs. Additionally there are 3 types of sites namely indoor, outdoor and IBS (In Building Solution). Since all these sites are dealing with highly valuable information in a high competitive market as mobile Tele communication industry and very expensive and sophisticated equipment are being used, the security is essential for each site. Thus the study is intended to design a system that can generate a message with a picture when an unauthorized person enters to a site.

The system is mainly designed for indoor sites and is able to identify when a non-staff member enters to a site. A picture of the outsider is captured and sent to a cloud platform in the internet (Thing Speak) and the link of the photo is sent to the person need to be informed. With the IR (Infrared) sensor near the site door, a signal will be generated when someone enters to the site. With the aid of RFID (Radio-Frequency Identification) the person's identity can be clearly identified by generating a message with a link of a picture of the intruder. As the final outcome, the system was developed to detect intruders and inform the responsible person by an image notification which is sent through a message.

Keywords: *GSM Architecture, BTS, Intruder, Security of a site, Sophisticated equipment*