

Information Security, including computer security, in relation to radioactive sources

Adzlin Hana Binti Mohd Sari
RADIATION HEALTH SURVEILLANCE BRANCH
PUBLIC HEALTH DEPARTMENT
FEDERAL STATE HEALTH DEPARTMENT KUALA LUMPUR AND PUTRAJAYA
JALAN CENDERASARI
50590 KUALA LUMPUR

Emel : msadzlin@moh.gov.my

Abstract :

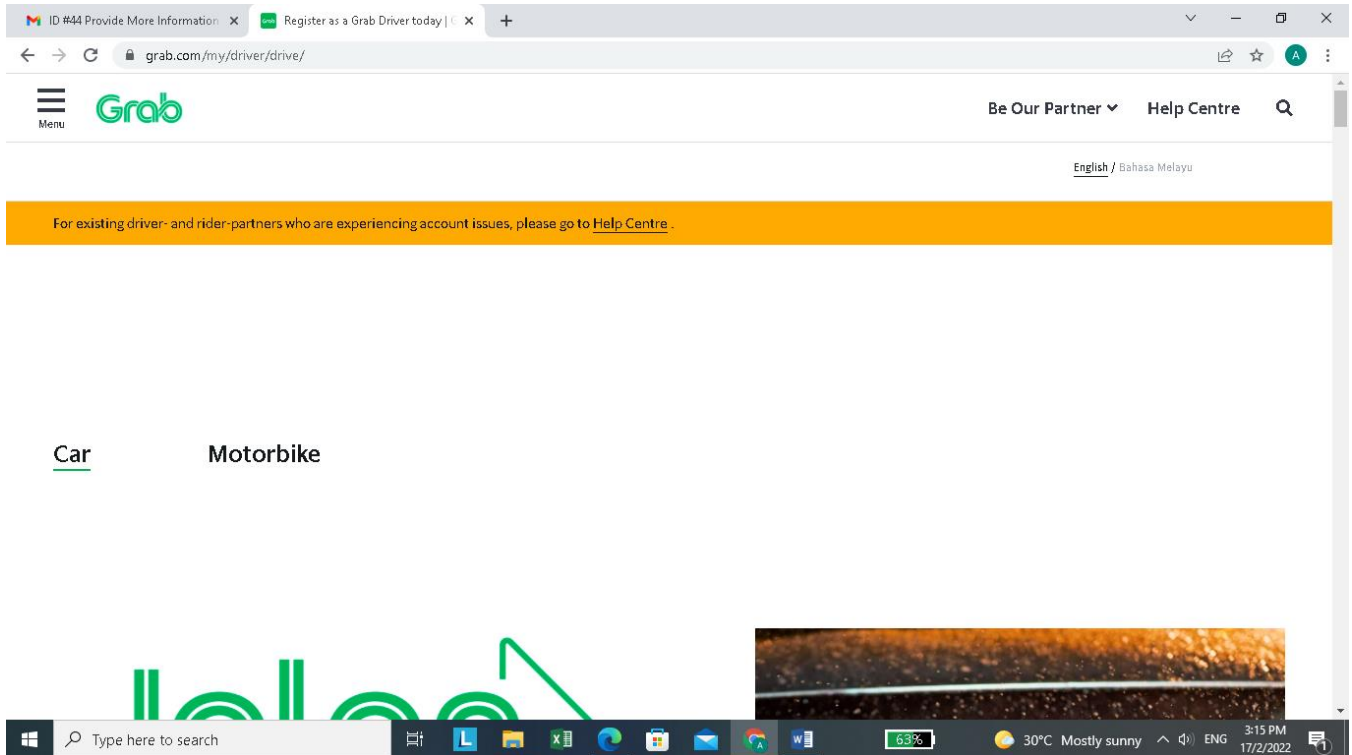
Episode 2018 : Lost and stolen of radioactive Isotope Iridium 192, was a big impact to Malaysian Government as it couldn't be found. The paper is to discuss prevention of lost and stole of the radioisotope using QR code, GPS tracking and GLSS. This system can be implemented in the minimum charges so suits the application for each radioisotope production. And the system can be access through mobile application so it is easy monitored with highly secured by the mobile system itself either android or apple system. The trial not been test because this paper was made overnight.

Synopsis :

The main reason this paper produce , is to track from A to Z the position of the Driver whom in charge of transporting the required Radioactive Material.

QR Code is widely used in Malaysian MySejahtera system to track citizen's registration to every premises or outlet in Malaysia. These includes all category of business and government premises. I would like to suggest, these QR codes will be implemented on the radioactive material label during the process of labelling specifically to register the Transportation Personnel Details / Driver as simple as using their mobile phones. It will than, automatically generates a tracking number so that the receiver known the details of the transportation journey until it reach the destination.

Secondly, GPS system such as simple as example GRAB DRIVER PARTNER application can be implement into the RPT (Radioactive Partner Transportation) Driver Partner can be install in the mobile phone. As example:



So under the be our partner section we can register all the Driver details and route they will follow for delivering/transporting the radioactive material. Under the type transportation, we replace Car/Motorbike to Car/Lorry/Air. The details will be explain in the article.

I know this is an example of commercialize apps, but we can make it easier/safer/end to end encryption so that no trespasser can download or duplicate the system.

Thirdly, I suggest GLSS tracking system, Glass Light Security System to alert the authority if lost stolen radioactive material Goods, once the glass break it goes off to the nearest police station (the Police/Aelb/BKRP department is registered in the system). I would suggest a mobile GLSS system must be installed in the RPT Driver partner system.

Otherwise, the tracking system we can applied using Accelerometer by US Patent: 7110777B2 , to be synchronise with the RPT Driver partner system. (Used in tracking missing small children).

Lastly, I would suggest in an encapsulated radioactive material, we use the same system we used in hotel tracking/monitoring refrigerator system. If the burglar or unknown person breaks the lead seal, and take the radioactive a part from the seal, we know that it is removed.

As conclusion at this moment, I will show a dummy example for the usage in the system in later part if the budget allows me to do so. This will be use in Malaysia for a Malaysian usage.