



**Singapore Healthcare Management 2019**

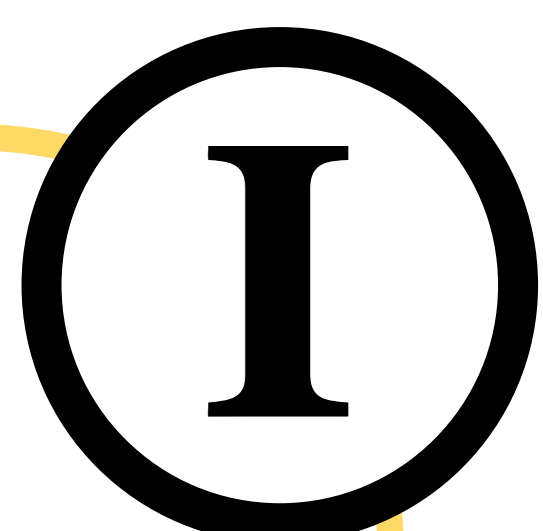
# Managing Hospital-Wide Mobile Assets Centrally with Real Time Location System (RTLS)

Teng Jyh Lei  
Isabel Kuek  
Ho Hwee Kim  
Deborah Ng Li Li



Sengkang General Hospital  
SingHealth

## Introduction



By centrally managing hospital-wide mobile assets with RTLS, the hospital aims to:

- **Optimise assets** by driving higher utilization with reduced asset numbers.
- **Deploy assets efficiently** to handle fluctuating operational needs.
- **Enable nurses to spend more time on patient care duties** by relieving them of having to spend time searching for, or sighting assets.



## Results



Equipment	Reduction
Infusion pumps	168
Syringe pumps	300
Patient transfer trolleys	38
Wheelchairs	293

**Total reduction of about \$ 900k**

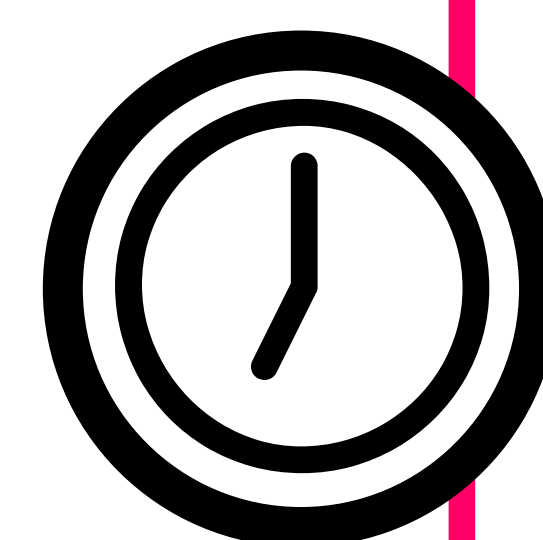
## Preventive Maintenance Time Saved



Maintenance Engineers **896** hrs/ yr



Nursing **938** hrs/ yr



## Method

### Asset Tracking

Central Asset Management (CAM) tags the assets with active RFID (Radio-Frequency identification) tags to track and identify the whereabouts of these assets.



### Centralised Ownership Model

Hospital-wide mobile assets such as wheelchairs, patient transfer trolleys, hospital beds, infusion and syringe pumps, are owned and centrally managed by CAM.

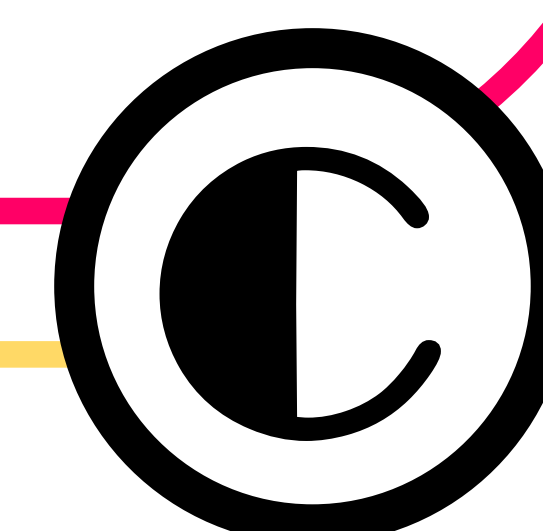
### Automated Corrective Maintenance Process

A press button on the RTLS allows users to indicate that Corrective Maintenance is required; it will trigger asset location information for porters to pick-up and deliver the asset to the workshop.

### Dynamic Asset Deployment

CAM is able to deploy the assets to the desired hospital locations based on minimum and maximum par level configurations.

## Conclusion



With a centralised asset management model using RTLS, CAM is able to deploy assets optimally and efficiently, according to patient needs. This has led to better patient care through the re-channelling of staff time and effort to more critical needs, such as clinical care.