

# NANYANG POLYTECHNIC AND UNIFIED INBOX PARTNER FOR IOT-ENABLED, MISSION CRITICAL SERVICES

Unified Inbox's intelligent IoT messaging technology is being used by Nanyang Polytechnic to create innovative smart nation solutions to help businesses and improve people's quality of life

**Singapore (11 November 2016) – Nanyang Polytechnic (NYP) and Unified Inbox Pte. Ltd. (Unified Inbox) today announced their collaboration, including the successful integration and testing of NYP's "CUBE" Internet of Things (IoT)-secured messaging gateway for healthcare. Secured, resilient, and intelligent connectivity, including multi-platform communications and real-time interaction, are a prerequisite — particularly for mission-critical services — for Singapore's smart nation initiative.**

*"CUBE comprises two novel algorithms which are patented by NYP and successfully demonstrates the ability to send real-time messages on elderly care and patients' health to authorized mobile devices using CUBE and Unified Inbox's UnificationEngine™ intelligent IoT messaging platform."*

— Mr. Kan Siew Leong, NYP School of Engineering Manager and CUBE Project Principal Investigator

*"CUBE permits only authorized sensors, IoT devices, and oximeters to access a secured ad-hoc network. This network can be within an elderly care facility, a community hospital, or a smart home environment. It transmits health information messages using NYP's on-site secure IoT messaging gateway to the UnificationEngine in the cloud. The health messages can then only be received by the authorized mobile devices used by the patients' doctors, nurses, caregivers, families, and next-of-kin."*

— Mr. Toby Ruckert, Unified Inbox Chief Executive Officer

*“CUBE goes beyond healthcare and can be easily adapted and developed for use in mission-critical environments, including: hospitals, financial services, public transportation, and the government. When there’s a breakdown in transportation anywhere in the system – whether on the train, bus, or even in a lift, an internal as well as a public broadcast message can be immediately posted on a Facebook or Twitter account, and the necessary authorities and service personnel can be instantly messaged in a WhatsApp, Telegram, or other group.”*

– Mr. Kan Siew Leong, NYP School of Engineering Manager and CUBE Project Principal Investigator

*“Industry collaboration with NYP demonstrates the ability of its staff and students to deliver innovative and pragmatic solutions suited to the needs of the global market. This project on secure IoT gateway for controlled access and personalized security — based on the specific user’s needs across different types of IoT “things” and mobile devices — is a good start, and we are excited to continue our collaboration with NYP to explore further applications of our UnificationEngine intelligent IoT messaging.”*

– Mr. Toby Ruckert, Unified Inbox Chief Executive Officer

## **PATENT WO2010085210 A1: Method and System for Secured Service-Oriented Nodes Discovery and Route Determination in Mobile Ad-hoc Network**

**The invention outlines a novel method and system that enhance the security of services supported in a wireless ad-hoc network (MANET). The security parameters and service pre-selected by the users, together with information of previous/recent neighbor MANET nodes will be integrated to speed up the nodes discovery and routing process.**

## **PATENT WO 2009082356 A1: Method and System for Securing Wireless Systems and Devices**

**The invention enables user to define and create security key based on security parameters from multiple layers (application, network and system layers) for wireless systems and devices.**

## **Image #1: Sample Cube Messages**

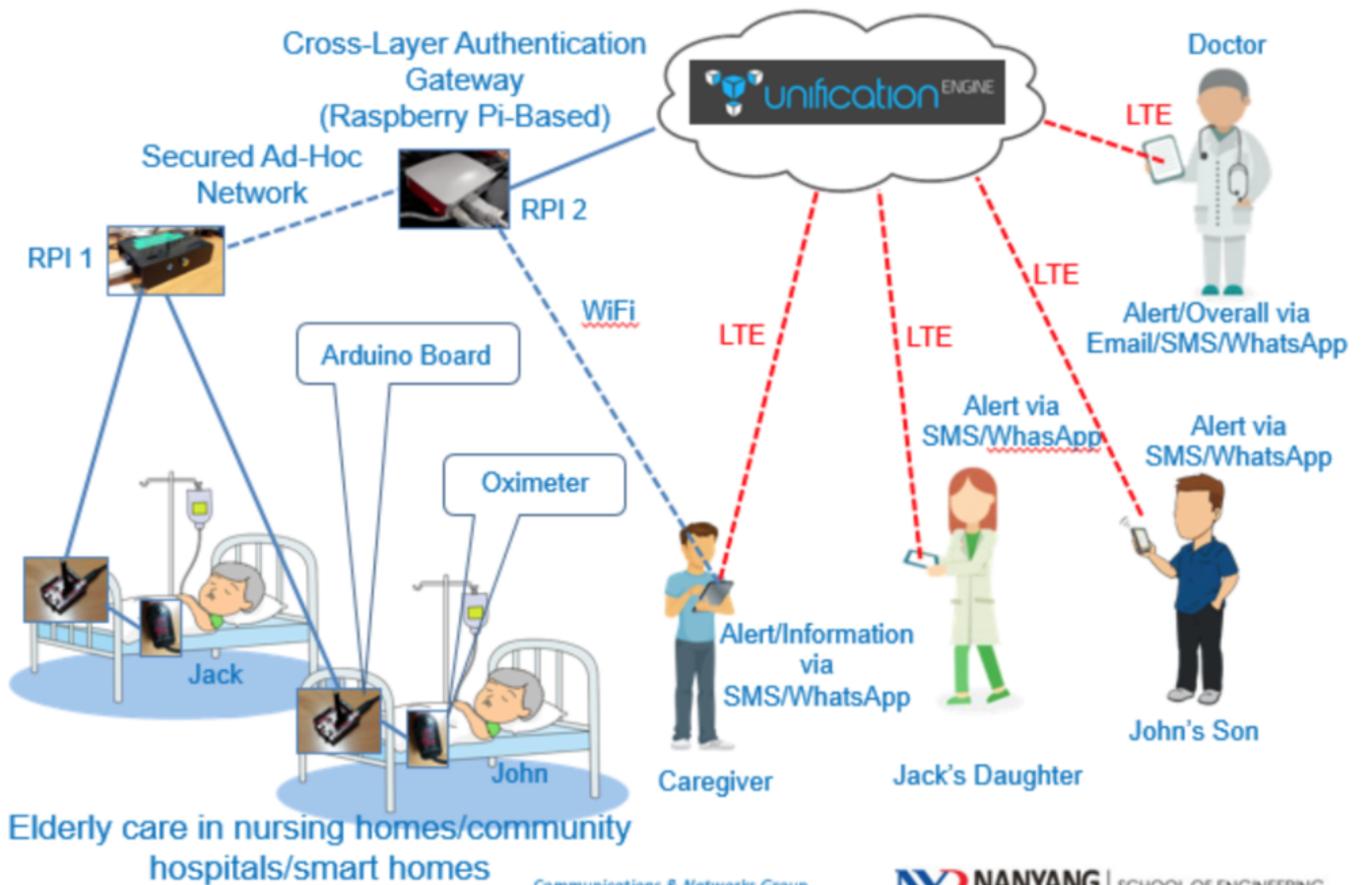
<b>Recipient</b>	<b>Message</b>	<b>Channel</b>
<b>Doctor</b>	Patient's consolidated health information When a vital sign is outside of a pre-determined threshold	Email SMS
<b>Nurse/Caregiver</b>	When a vital sign is outside of a pre-determined threshold	SMS
<b>Family Member</b>	When a vital sign is outside of a pre-determined threshold	WhatsApp

Notes

- Only authorized IoT devices/sensors/oximeters were allow to send messages to the cross-layer authentication gateway via the secured ad-hoc network.
- Alert and informational messages were received by mobile devices carried by doctors/nurses/caregivers/patients' next of kin via Email, SMS and WhatsApp.
- "Timestamp" indicates the date and time that the reading was taken by the oximeter.
- The name of the hospital and ward number specified the location of the oximeter. Followed by the patient's name and lastly is the message that states the blood oxygen level of the patient.
- All sent messages are recorded.

**Image #2: Secured Health Monitoring System for Elderly Care**

# Secured Health Monitoring System for Elderly Care



1

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think innovation, create possibilities

Image #3: Photo of Mr. Kan and Mr. Ruckert at Nanyang Polytechnic



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#### ABOUT UNIFIED INBOX

Unified Inbox Pte. Ltd. is a global intelligent Internet of Things (IoT) messaging company focused on smart homes, smart cities, and smart industries (including Industry 4.0 and enterprise intelligence). With headquarters in Singapore and operations in New Zealand, India, Europe, the US, and the UAE, Unified Inbox's UnificationEngine™ platform brings together Artificial Intelligence (AI) with IoT and unified messaging to enable products and software to communicate with people and things.

For more information, please visit [unifiedinbox.com](https://unifiedinbox.com) and [unificationengine.com](https://unificationengine.com).

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