

IoT Capability Beyond Connectivity

Azrin Bin Aris

Director, Emerging Solutions & Innovation
TM ONE

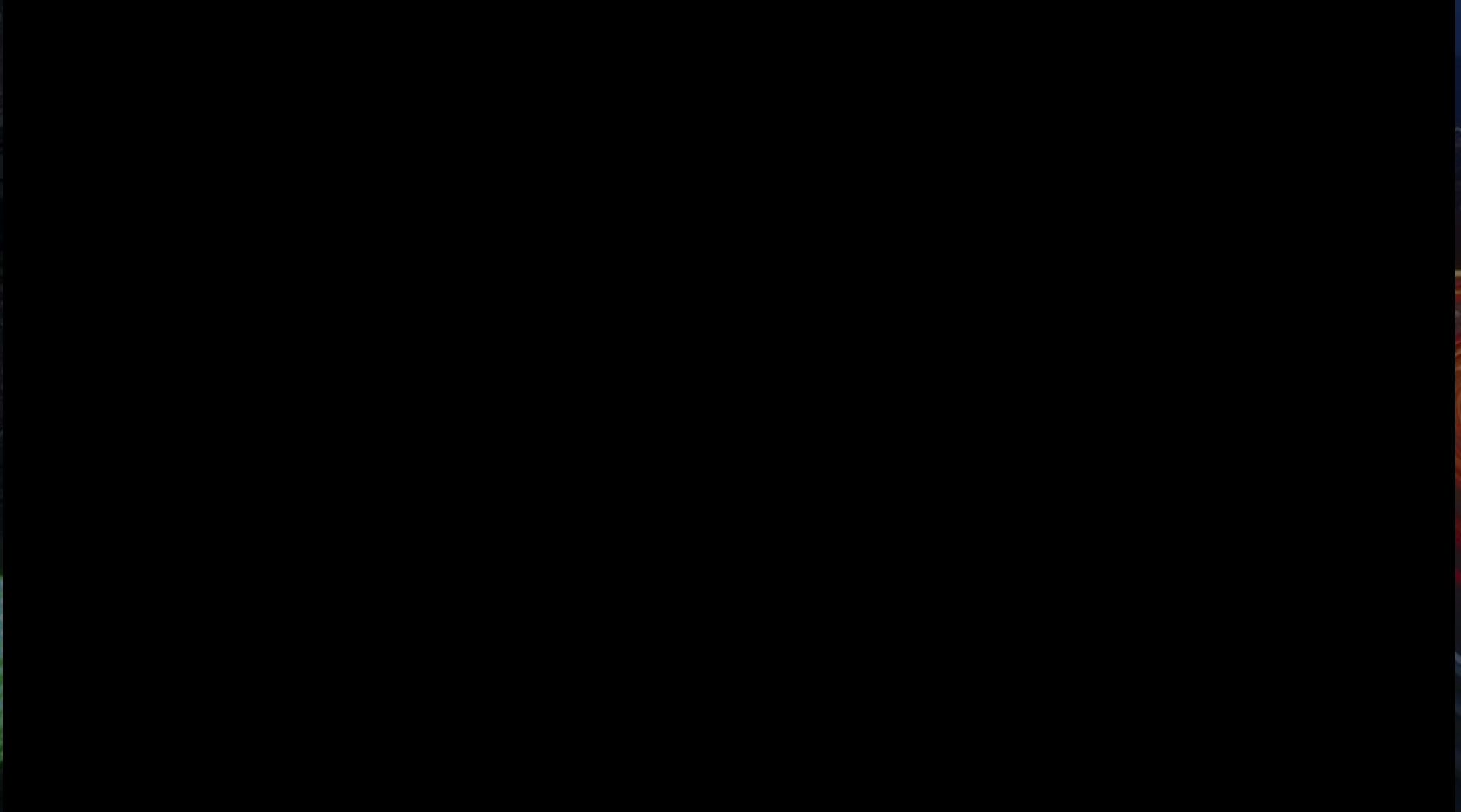


Operator Innovator of the Year Award
Leader of the Year Award



TM ONE & JKR MOU SIGNING CEREMONY

Landed into the collaboration on IR4.0



DESIGN THINKING WORKSHOPS

Sharing pain points & challenges



With the challenges using the conventional way, it is hard to maintain the operating cost at optimum level while growing the services. Each of the services expansion will require to train people to monitor and manning the services.

OUR METHODOLOGY

Technology should be the last, not the first consideration. Citizen is the first consideration.

WHAT
PROBLEMS
ARE WE
SOLVING?

WHOSE
PERSONA
ARE WE
ADDRESSING?

HOW CAN
THE
SOLUTION BE
SUSTAINED?

needs of people

WHO ARE THE PLAYERS WITHIN THE **EXISTING**
ECOSYSTEM THAT WE CAN LEVERAGE ON?

empower existing players to ensure
a healthy **ecosystem**

WHAT **TECHNOLOGY** CAN ADDRESS ALL OF THE
ABOVE CONSIDERATIONS?

the technology choice should enable the
solution to **intuitively adapt and**
respond to the problem

INTRODUCING TM ONE Smart Traffic Lights Solutions

Smart Traffic Lights Solutions is a service that **enhances existing traffic control system** by providing central monitoring, data visualization & analytic through a **single platform**

TM ONE Smart Traffic Lights Solutions

Overall Map View indicates Location of Traffic Lights and Real Time Status
Alarm trigger via Telegram to traffic light provider and Local Councils

CKE
KELANTAN

Smart Traffic Lights Solutions

STARS TCUs	Description
KB-D02-DYN	TL PPR KOTA BHARU
KB-D108-DYN	TL GUCHIL BAYAM
KB-F01-DYN	TL PANJI
KB-F01-PPK	TL Taman Maju
KB-F02-PPK	TL HUSM
KB-F07-DYN	TL BILLION
KB-F14-DYN	TL SIMPANG JAMEK MERBAU
KB-F18-DYN	TL Limbat
KB-F19-DYN	TL Peringat
KB-F21-DYN	TL Pasir Tumboh
KB-F24-DYN	TL Persimpangan Balai Islam
KB-F57-DYN	TL UDA MURNI
KB-FT34-DYN	TL JAMBATAN KG PEROL

4:16
LTE

120 Chats
STARS@CKE-Kelantan
6 subscribers

2 STARS_Central, 6:16 PM

Today

STARS@CKE-Kelantan
[NEW ALARM] @ PM-F03-DYN
Type : AMBER ALERT
Time : 19/9/2019 - 1:46:18
Detail : System is running on AMBER

Location : **TL Pasir Mas Bypass**
1 STARS_Central, 1:46 AM

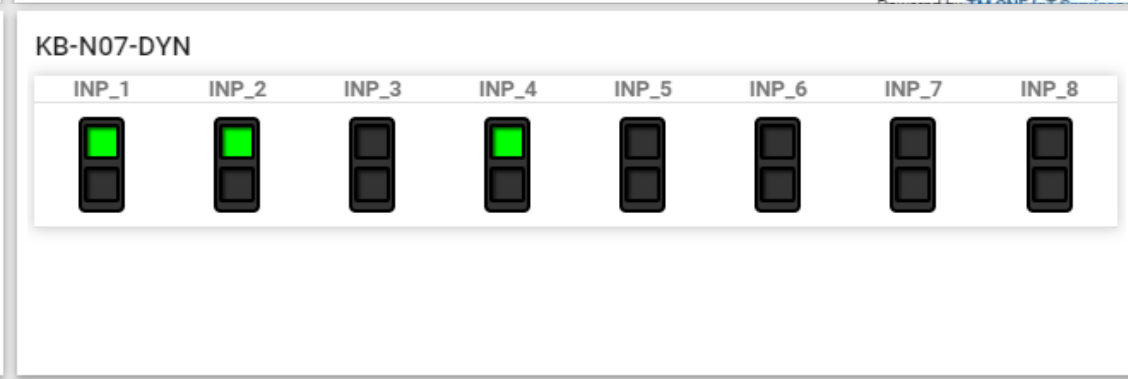
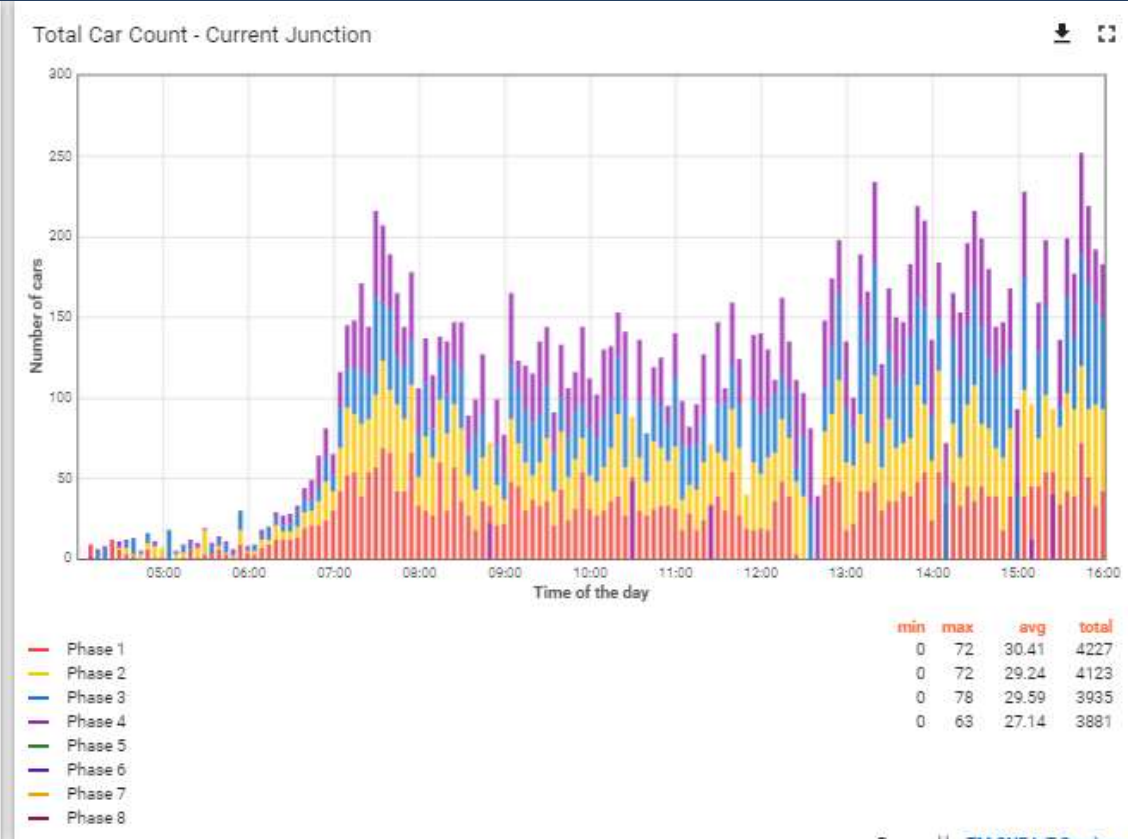
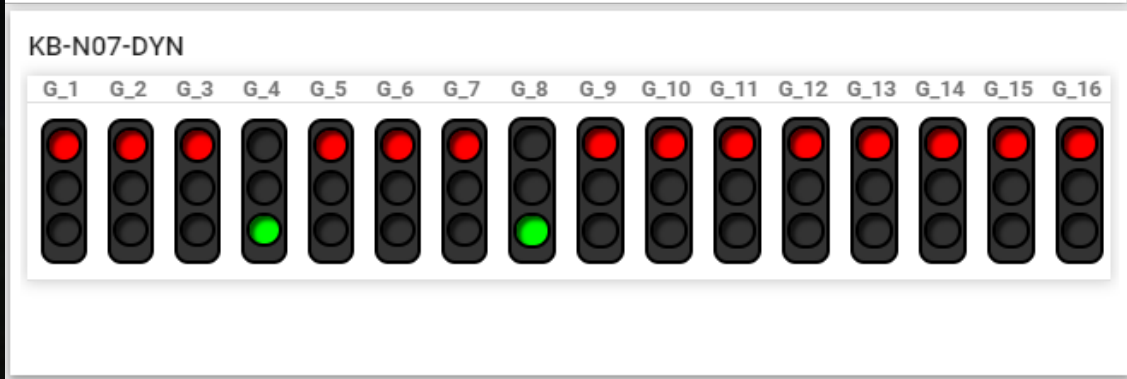
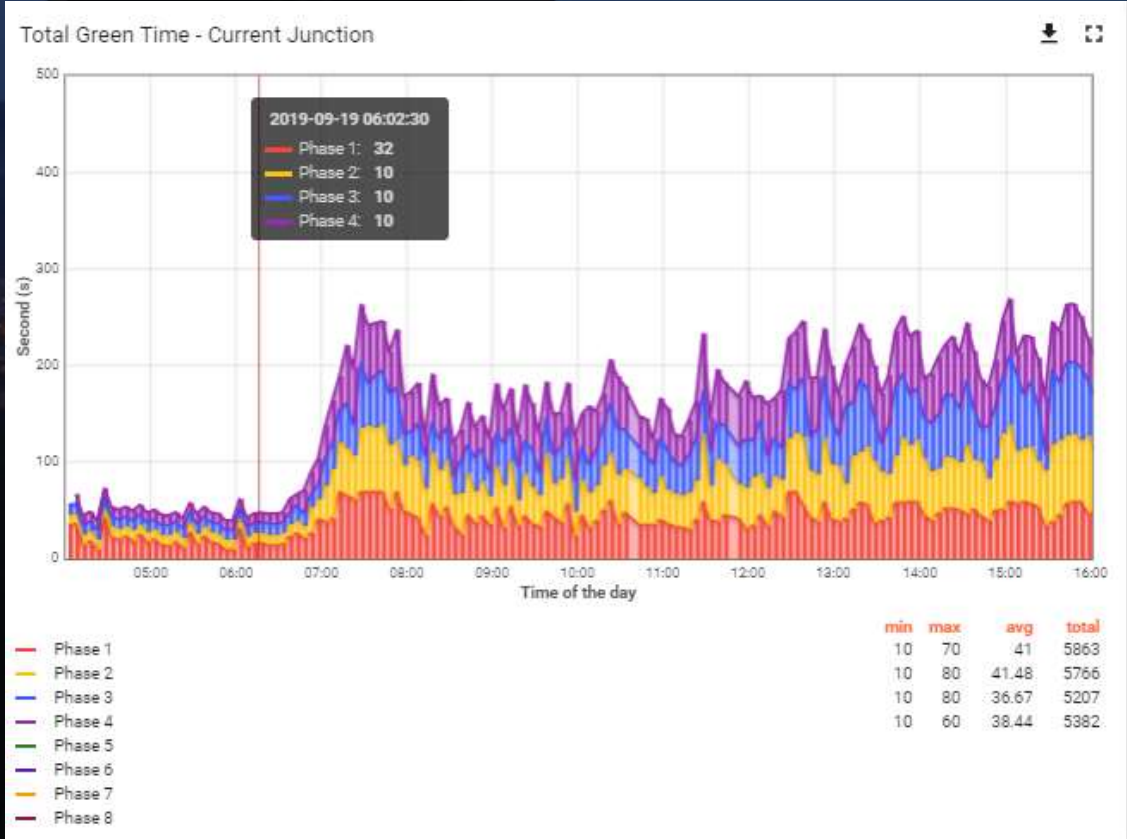
STARS@CKE-Kelantan
[RESOLVED] @ PM-F03-DYN
Type : AMBER ALERT
Time : 19/9/2019 - 10:6:23
Detail : System is back to normal
Resolve Time : 8h 20m 5s

Location : **TL Pasir Mas Bypass**
2 STARS_Central, 10:06 AM

STARS@CKE-Kelantan
[NEW ALARM] @ KB-N006-DYN
Type : MP ALERT
Time : 19/9/2019 - 15:49:38
Detail : Phase 1 is running MP
Route : undefined

Location : **TL BINJAI**
1 STARS_Central, 3:49 PM

Broadcast



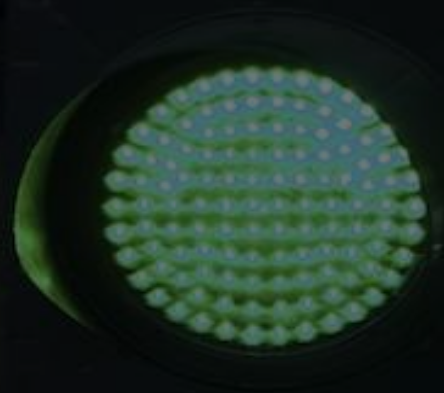
ACCOLADES

30th International Invention, Innovation & Technology Exhibition (ITEX'19), Malaysia (2 – 4 May 2019)

Award Category: Information and Communications Technology, Telecommunications, Audio Visual

Hari Inovasi JKR Malaysia (2 Oct 2018)

Award Category: Kumpulan Inovatif & Kreatif (KIK)



TCU – Traffic Controller Unit

The screenshot shows the official website for the 30th International Invention, Innovation & Technology Exhibition (ITEX'19) in Malaysia. The page is titled 'JABATAN KERJA RAYA MALAYSIA' and 'PORTAL RASMI'. It features a navigation menu with links to Home, Exhibition Info, Visitor Info, Exhibitor Info, Blog, and Contact Us. The main content area displays the results for the 'INFORMATION AND COMMUNICATIONS TECHNOLOGY, TELECOMMUNICATIONS, AUDIO VISUAL' category. A table lists the winning organization, inventors, invention, and award.

PAHANG	RAHISHAM ABDUL RAHMAN, NURUL NADIAH ABDUL HALIM, DANIAL MOHAMED	GROUNDING CRYSTAL	GOLD
ITEX'19			
INFORMATION AND COMMUNICATIONS TECHNOLOGY, TELECOMMUNICATIONS, AUDIO VISUAL			
ORGANISATION	INVENTORS	INVENTION	AWARD
JABATAN KERJA RAYA MALAYSIA	MOHD RUDZUAN BIN ARIFFIN, AZIMI BIN CHE SOH, AHMAD NASRUDDIN BIN MOHAMED, ZAIHAN BIN AWANG, NIK LUQMAN NOORAIMAN BIN MOHSIN, WAN AZIZ BIN WAN AHMAD, MOHD NAZMI BIN HUSSIN, MOHD FAIZOL BIN GHAZALI	SMART TRAFFIC ANALYTICS & RECOGNITION SYSTEM (STARS)	GOLD



TM ONE & JKR TOGETHER...



- Implemented STARS at > 50 junctions (Kelantan, Terengganu, Perlis)
- 20 – 30% cost savings
- Fast to troubleshoot (with alarm generated automatically)
- Future traffic planning (data extracted from the system)
- Ease of operation using TM ONE single monitoring system

REALIZING DIGITAL ERA OF IR4.0

TM ONE & JKR TOGETHER... WHAT'S NEXT?



**Smart Building
Management Solutions**



**Smart Street Lights
Solutions**



Many more...

TM IS NOT JUST ABOUT CONNECTIVITY..



TM is an enabler beyond connectivity



Smart City



Smart Living
& Community



Smart Mobility



Smart Industry



Smart Education

Smart Services



Communication
Services



Network VAS



Managed
Security Services



Business
Analytics &
Insight



Managed
Data Centre



Robotic Process
Automation



Digital Content
Management



Cloud Services



Contact
Centre Facilities

Integrated Services

unifi

Broadband
& Mobile



SDN, Integrated
Data & Internet



Global Connectivity



WiFi



Internet Exchange

Connectivity Services

A long-exposure photograph of a city at night, showing light trails from cars and buildings. The image is dominated by blue and white light trails, with some red and yellow trails visible. The city skyline is visible in the background, with several tall buildings illuminated. The overall scene is dynamic and energetic.

THANK YOU