

Annex E

June 2015

MEDIA FACTSHEET IDA BOOTH AT COMMUNICASIA 2015 HIGHLIGHTS (BASEMENT 2, BOOTH NUMBER BD2-01)

The HetNet Showcase

What will visitors see?

- a) The next phase of the HetNet developments, with trials by partners in the Jurong Lakeside District (JLD).
- b) The updates on the HetNet trials at JLD were provided in the 22 Apr announcement (at Smart Nation Innovations). At the exhibition, we will be displaying a map of the key locations in JLD, where the trials are being deployed, and the respective objectives. For example, the deployments at the JE MRT and Bus Interchange are meant to ease network congestion; the deployments at HDB flats are to provide uninterrupted connectivity to/from home.
- c) At the same time, there will be 3 live demonstrations of the latest wireless technologies:
 - High speed wireless backhaul transmission using mmWave – to demonstrate the capability of backhauling wireless traffic using mmWave where fibre is not readily available. The Institute for Infocomm Research (I²R) will be showing how high-speed (~1.5Gbps) backhaul connection can be established between 2 points reliably.
 - Intelligent switching between Wi-Fi and LTE 4G Cellular – Intelligent switching between Wi-Fi and LTE 4G cellular – to demonstrate continuity of voice over IP calls when handset switches intelligently between Wi-Fi and LTE 4G cellular. Nokia will be showing the ease of providing intelligent switching between LTE 4G cellular and Wi-Fi. This is in line with HetNet objectives of mitigating capacity crunch and optimising scarce spectrum.
 - Relay Node – to demonstrate how LTE coverage and signal can be improved indoors with the use of LTE relay. MyRepublic is considering using this technology on buses to improve LTE signal and thus better data speed inside buses at the

JLD HetNet Trials. During the exhibition one vendor, Airspan, will show how 4G cellular coverage and signal can be improved with the use of LTE relay node-The various elements of the HetNet vision, which includes seamless connectivity to bring E3A (Everyone, Everything, Everywhere, All The Time) to life. We will explain the purpose of the Hetnet trials and demonstrate how E3A can be achieved. For example, the intelligent switching between Wi-Fi and LTE will enable user devices (e.g. smartphones) to stay connected to the best available network, in accordance with the usage needs.

- d) Examples of the various hardware infrastructures including a microcell. A microcell is a small mobile phone base centre that can extend mobile connectivity to limited areas such as a park or an underground mall. Think of a microcell as a miniaturised cell tower in a box.

Why is it relevant?

- The HetNet Programme is part of the Infocomm Media Masterplan.
- HetNet is part of the communication backbone of the Smart Nation Platform (SNP).
- The HetNet Showcase at the IDA booth will highlight the various technologies that can be used to supplement the existing connectivity networks, and thus deliver the vision of true seamless connectivity. Examples include the latest wireless technologies such as High speed wireless transmission using mmWave, Intelligent switching between Wi-Fi and LTE, and LTE Replay (small cells).

The Next Wave in Experiential Job Training:

What will visitors see?

- a) The use of Oculus Rift and Samsung Gear Virtual Reality (VR) glasses that allow for 360-degree immersion in Virtual Reality environments. FX Media, a Singapore start-up, produced customised VR scenarios for training purposes. They will offer a hands-on experience for visitors to the IDA Booth. For example, a cargo ship environment can be used to train users in locating essential items like a first-aid box or a vital control switch, or learn how to quickly retrieve a fire extinguisher to put out a fire.
- b) In another scenario, users will be put in a tour of the Singapore River in the past,

using hand motions to paddle a sampan up the river. This is meant for an educational implementation.

- c) Training in VR environment can now be done in a portable set-up, overcoming issues such as a lack of training space. It is designed to supplement traditional training methods.

Why it's relevant

- This is the new wave of experiential job training, in which virtual training environments can overcome physical constraints and limitations, such as a lack of training space or limited training resources to produce a realistic scenario.
- Virtual training also complements analytics, in that training data can be collated and analysed to provide insights for refinements and improvements to the training programme and scenarios.

IDA Lab on Wheels: Coding for Kids

What will visitors see?

- a) The IDA Lab on Wheels is a specially designed and configured bus that houses technologies for students to learn all about technology through activities such as coding a game or programming a robot.
- b) On Day 1 of the exhibition, a group of 12 students will be creating a sensor gadget that sends a text message to their parent when it detects the home WIFI network (suggesting that the student is safely home).

Why it's relevant

- The IDA Lab on Wheels is a mobile platform that brings technology education to schools and students. It opens up the possibilities of tech tinkering and experimenting.
- In a Smart Nation, tech enables us to improve our quality of life, such as in transportation, use of resources and even in public safety. This demonstration shows that anyone can participate in this, even kids, who are able to create their own sensors to help set their parents' mind at ease.

Sensor Island: Using video analytics to understand traffic patterns and visitor movements

What will visitors see?

- a) A visual display of the collated data collected by video sensors arrayed around the IDA booth. The video sensors will collect the visual data that will be anonymised and analysed by local start-up Kai Square, which will then produce insights into the traffic flow of the IDA booth. The visualisations will include insights on typical traffic flow throughout the booth, keep a count of the number of visitors, and also provide an overview on which are the more and less popular exhibits at the IDA Booth.

Why it's relevant

- The Sensor Island exhibit will show visitors how the collection and analysis of anonymised data can help to provide valuable insights that provide understanding of crowd movements and behaviour at the booth. This can be extrapolated to the concept of Singapore as a Smart Nation, with a nation-wide sensory network that provides valuable data that can be mined for insights into making the lives of citizens better.

For media clarification, please contact:

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