Annex A

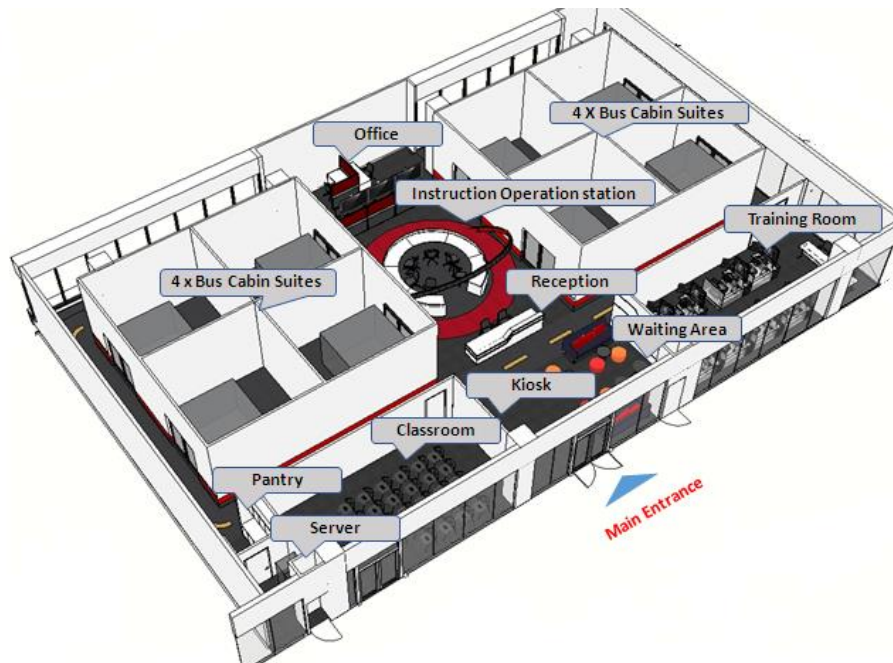**Fact Sheet on the SMRT Bus Training and Evaluation Centre (SMRT BTEC)**
- First Networked & Team-Based Bus Simulator Training Centre in the World
Issued on 2 July 2015 as Annex to the news release titled "Team-Based Simulation Training for Bus Professionals In Singapore"

1. The SMRT BTEC is located on Level 6 of the Devan Nair Institute for Employment and Employability in Jurong East. It covers an area of 6,300 square feet.

2. The centre, Bus Career Development Centre, rebranded to the SMRT BTEC, as it serves as the research, development, training and evaluation centre, allowing for experimentation and validation of bus service tactics, techniques and protocol (TTP), and improvement of operational processes. These will improve bus service safety and reliability.

3. With the help of the Integrated Driving and Service Control (iDSC) simulators, SMRT BTEC ushers in a new era for training of bus drivers, and staff that monitor and control bus services, for better service safety and reliability.

4. The iDSC was developed together with ST Electronics (STE), a company of Singapore Technologies Engineering.

5. Training schemes to be developed also leverage on a Professional Learning Management System (PRO-LEARN) which employs big data analytics to constantly monitor driving performance for continuous improvement. The PRO-LEARN system, developed together with NEC Singapore, empowers bus professionals to take ownership of their learning and mastery of skills.

6. Together, iDSC simulators and PRO-LEARN allow for:

a. Bus captains to familiarise themselves with new routes and improve bus handling skills;
b. Training for day and night driving and various weather and traffic conditions; and
c. Bus operational and service controllers to practise managing bus services on the road from a command centre.

7. Eight Full Cabin Simulators (FCS) for four different bus models will be installed at the centre. These represent all bus types currently fielded by Public Transport Operators (PTOs). Driving simulators replicate the driver's console, instrument panel and driving characteristics of the various bus types so new drivers can gain a better appreciation of their vehicles before hitting the road.

8. In addition, the SMRT BTEC will have eight Bus Simulator Trainers (BST) for basic training of drivers. This introduces them to road conditions they may encounter along their route, for example heavy traffic, narrow roads, high pedestrian volume, etc.

9. It will also have a service control centre that replicates the nerve centre for bus operations, networked with all 16 bus simulators to allow bus controllers a feel of managing bus services in real time, and under challenging traffic conditions.

10. The iDSC Simulator

   a. FCS Features:
      i. Complete replicas of common bus models, providing a wholly immersive training experience
      ii. Full size vehicle cabin, with 180/270/360 field of view
      iii. Real vehicle controls (steering wheel, accelerator & brake, gear shift, instrument panel, in-cabin switches)
      iv. Optional 3 or 6 degree freedom of motion platform

b. BST Features:
   i. Modified, compact bus cabin, with 120/180 degree field of view
   ii. Driving controls (steering wheel, accelerator & brake, gear shift, digital instrument panels)

c. Two Service Control Desktop Stations Feature
   i. Service monitoring and bus timekeeping and deployment
   ii. Communication and coordination with bus drivers
   iii. Incident handling and reporting

d. One Instructor Operation Station Features
   i. Concurrent training, evaluation and assessment
   ii. Real-time monitoring and on-demand scenario injections