

TUESDAY 13 NOVEMBER 2018	
CAFEO 36 Opening Ceremony East Ballroom 1, 2, 3	
09:00 – 10:30	<p>Opening Address Prof. Yeoh Lean Weng, Chairman, ASEAN Federation of Engineering Organisations, President, The Institution of Engineers, Singapore</p> <p>Keynote Address Guest-of-Honour Mr. Teo Chee Hean, Deputy Prime Minister and Coordinating Minister for National Security</p>
10:30 - 11:00	Morning Tea Break
Singapore Rail Technology Conference	
11:00 - 12:30	<p>Plenary Session East Ballroom 2</p> <p>Plenary Chairman: Colin Lim, Managing Director, SMRT Services</p> <p>Keynote Address Guest-of-Honour Dr. Lam Pin Min, Senior Minister of State, Ministry of Health, Ministry of Transport</p> <p>Singapore’s Story on Smart Mobility Chua Chong Kheng, Deputy Chief Executive, Infrastructure & Development, Land Transport Authority</p> <p>Israel Railways Cyber Strategy For years IT networks and OT networks/systems have run as independent networks (air gapped). In recent years we see that these traditionally separated environments start to converge. In the Rail industry for example we see that the critical systems, such as the signaling systems and other mission critical systems, are connected to the IT environments, get remote support from 3rd party suppliers, and sometimes even allow for the integration of IOT devices. This of course pose a great risk to those systems, and because of that, Israel Railways Ltd. decided to mitigate those threats, and with the help of the Israeli NCD (National Cyber Directorate) began to establish a Cyber department that will handle all Cyber aspects, both in the IT and the OT environments, with a good strategy that will include cyber solutions for people, processes and technologies in the company. A big part of this strategy is to build the first in the world SIEM/SOC (Cyber Security Operation Center), that will monitor both IT & OT, including Israel Railways signaling systems.</p> <p>Israel Baron, Head of Cyber Department (CISO), Israel Railways Ltd</p>
12:30 - 13:30	Lunch
13:30 – 15:00	<p>ASEAN Country Updates East Ballroom 2</p> <p>Railway and transit development in ASEAN has witnessed an unprecedented transformation, with huge and ambitious plans for expansion of rail connectivity at national and international levels. While construction and bilateral cooperation is underway, this growth is not devoid of challenges in geographical social & political stability, cost-benefit consideration, technologies adaptation and financing hurdles. Rigorous growth presents not just opportunities but also competitions, social and environmental costs. How ASEAN successfully manoeuvres through these remains a critical and interesting one.</p> <p>Railway Rehabilitation and Development in Cambodia Ray Rom, Chief Office of New Rail Line Office, Railway Department, Ministry of Public Works and Transport, Cambodia</p>

	<p>Implementation of Indonesia's National Railway Master Plan – Progress, Challenges and Opportunities Erni Basri, Deputy Director for State Owned Railway Management of Rolling Stock, Directorate General of Railways, Ministry of Transportation Indonesia</p> <p>Malaysia Rail Projects: Progress and Current Initiatives Yuslizar Daud, Head of Rail Division, Land Public Transport Commission, Malaysia</p>
15:00 - 15:30	Afternoon Tea Break
15:30 – 17:00	<p>Rail Infrastructure Development East Ballroom 2</p> <p>Recent JBIC's Activities on the Infrastructure Sector in ASEAN The presentation provides a description on recent JBIC's financing on the infrastructure sector including railway. Yasuki Kominami, Chief Representative, Singapore Office, Japan Bank for International Cooperation</p> <p>Automation of Metro Lines – 60 Years of Innovation at RATP Group The automation of existing metro lines without traffic disruption is the remarkable outcome of a longstanding story of innovation at RATP Group starting in the late 50's. The presentation will focus on RATP Group's experience in metro modernization and automation (industrial strategy and key success factors) and will offer fresh perspectives on the concept of automation at the age of digitalization and emerging mobility solutions. Mathieu Dunant, Head of Innovation, RATP Group</p> <p>Project Risk Management Large infrastructure projects are complex and long by nature, thus their exposure to risk is very high. Historically, many large infrastructure projects have suffered from significant undermanagement of risk throughout their life cycle. MyHSR and LTA will share their experience in the management of risk and on how important it is to account for it right from the planning stage of the project. In particular the session will look at how project structure and procurement are decisive in the allocation of risk to the best party able to manage it. Stephane Mortier, Engineering Director, MyHSR Corp Tham Kok Yong, Director, Systems & Rail Services, High Speed Rail Group, Land Transport Authority</p>
17:00	End of Day One

WEDNESDAY 14 NOVEMBER 2018		
09:00 – 10:30	<p>RAIL DIGITALISATION East Ballroom 2</p> <p>Rail operators around the world are facing growing demands and challenges to bring about a more reliable service in relation to their aging systems, higher customer expectation, limited engineering hours, and scarce resources. In addition, as rail systems become more complex there is an imminent need to leverage on digitalization to gain an upper hand on assets and system readiness management in terms of better optimizing resources, drawing deeper insights into system faults, highlighting blind spots, recommending remedial actions and to the extent of pre-empting the occurrences of defects.</p>	<p>RAIL ASSET MANAGEMENT EXCELLENCE Virgo 1, 2</p> <p>Innovation precedes evolution, and therefore marks the way forward for most Asset Management leaders. To innovate organisations constantly need a deeper understanding of how to prioritise investments; whether in risk assessment, carbon reduction, condition monitoring, data management and quality, or user satisfaction. With the tidal wave of Big Data, IoT, cyber-physical system in view, the rail sector is set to change on how it strategizes and optimizes asset whole-life cycle performance.</p>

Digitalisation of Urban Rail System

This topic shall share some of SMRT's implemented initiatives and the system architecture of rail digitalization. Pressure on the Public Transport Operators (PTO) to deliver reliable services in a sustainable manner is ever growing, as infrastructure ages, ridership increases and the rail systems getting more complex. The demand is for PTO to develop new capabilities in order to stay ahead of the situations. Introducing sensor networks for condition monitoring, digitizing the operations and maintenance processes, as well as conducting system diagnosis via data analytics are some of the benefits that digitalisation could enable the PTO to bring about better performance and positive experiences to its commuters.

Liong Yuen Ming, Head Future Systems (Capability Development), **SMRT**

Digital Transformation in Rail for a Better Tomorrow

We live in a world of rapid technological change – the rapid growth of “connected” devices, the huge volumes of data generated every second and exponential advances in measurement and computing technology threaten to leave us behind. This rate of change shows no sign of slowing down, and when keeping track of new technology is a challenge in itself, gaining value from it while simultaneously working to deliver existing projects against ever increasing constraints, can be a daunting prospect. Join us then as we explore some of the challenges and opportunities you might face throughout your organisations digital transformation, covering process change, education, communication, digital collaboration, standards and workflows across the rail asset lifecycle: from planning to performance.

Andrew Smith, Manager, Rail Asset Performance, **Bentley Systems, United Kingdom**

Digitalisation for Asset Performance in High Speed Rail

High speed rail projects deliver new modern asset infrastructure, avoiding many of the legacy constraints of existing railways. Those new assets age and degrade, increasing the maintenance burden for an infrastructure owner, which accelerates as more assets reach end-of-life at the same time. By exploiting the latest digital technology during construction, and keeping it joined-up throughout the lifecycle we can achieve and sustain unparalleled asset-performance during operations, maintenance and asset renewal. Illustrated by several high

Tapping into Cutting Edge Technologies and Digitalisation in Transforming Project Delivery

MRT Corp has mandated Level 2 BIM implementation for the Sungai Buloh-Serdang-Putrajaya (SSP) Line with the aim to increase productivity and reduce project life cycle costs. The project leveraged the cutting-edge digital engineering technology comprises Projectwise and Assetwise as the Common Data Environment (CDE) to integrate with other cloud-based technology such as GIS, Reality Modelling (RM), Requirement Management, Computerised Maintenance Management System (CMMS), Issue management, 3D Laser Scanning, Construction Field Management, and mobile Apps. This seamless integration and sharing of the project information in the CDE improve the accuracy and efficiency of the project data/information exchange between different project stakeholders for the entire project life cycle.

Er. Poh Seng Tiok, Planning and Design Director, **MRT Corporation Sdn Bhd**

Singapore Rail Asset Management - Challenges, Opportunities and Delivery

The Singapore rail system is rapidly expanding as the pillar of the Singapore public transport network. It now consists of multiple MRT and LRT lines at different stages of the life cycle. With the rail lines and operating assets coming under LTA asset ownership in the New Rail Financing Framework, LTA has adopted an Asset Management approach based on whole-life management of assets through an integrated technical-financial-operations paradigm. In recent years, the Singapore rail system has improved its service reliability for commuters through multiple asset management and maintenance initiatives by LTA and the Operators. The presentation will share on the challenges and opportunities of managing rail assets in a complex expanding rail (metro) system in Singapore. It will share ideas and practices adopted, and highlight how the multiple asset stakeholders and partners (designer, supplier, owner, manager, operator and maintainer) in the Singapore rail system have contributed to deliver rail excellence and value.

Leow Meng Fai, Deputy Group Director for Rail Assets, Operation & Maintenance and Director for Asset Condition, Renewal and Data, **Land Transport Authority**

	<p>speed rail projects at different stages of development, this presentation examines the range of digital technology capabilities being used to maximise asset performance, and the critical success factors for making it work.</p> <p>David Moran, Associate Director and Digital Advisory Leader, Arup, London</p> <p>Activate the Data Asset, Re-define the Value of Video Surveillance</p> <p>Video surveillance has been widely deployed in the world, and constant innovation of AI technology, video data are heavily created daily, but most of the data will only be use when incidents happen. The accumulated video data were put in hibernation mode. How to utilize the data? How to innovate video and big data? What does innovation of video big data brings to transportation industry?</p> <p>Liu Shu Hung, Video Cloud Industry Solution Manager, Huawei</p>	
10:30 – 11:00	Morning Tea Break	
11:00 – 12:30	<p style="text-align: center;">RAIL OPERATION AND MAINTENANCE East Ballroom 2</p> <p>The transportation sector, especially railways and metro have largely adopted Industry 4.0. The use of smart technologies is leading to improve quality of services, safety assurance, new savings, enhance resource utilisation and efficiency. This segment takes a closer look at how digitalisation and automation as a huge maintenance lever, new entrant technology that will re-shape the sector’s operation and maintenance ecosystem and how individual companies can benchmark frontier players, prepare effectively for capturing value from the new opportunities.</p> <p>SBS Transit North East Line (NEL) Reliability Engineering</p> <p>The reliability engineering journey for metro lines have come a long way since reliability referred to strategies such as redundancy in design, cyclic stress testing and enhanced preventive maintenance based on historical occurrence. Today, the indispensable role that a city metro performs has drastically changed the demands on railway reliability. It is more important than ever to complement railway maintenance with a high level of failure predictability. We too, have begun to build our data analytics capabilities. We begin by looking into past failure data, refining our fault collection processes, ensuring timely, accurate and precise data are captured. One major challenge is the filtering of usable data from unstructured inputs, such as long text fields, into meaningful categories. The other challenge is deriving meaningful clusters of data from such categories. We will present some of our case</p>	<p style="text-align: center;">RAIL ASSET RENEWAL AND UPGRADING Virgo 1, 2</p> <p>Asia has some of the longest, busiest but also oldest rail networks. Utilisation of existing rail systems and the harsh reality of the underperformed, aging first-generation trains have definitely heighten awareness about the need for asset renewal and upgrading exercise. Timely and soundly calculated investment in asset upgrades not only ensure reliability and efficiency but also keep the train functioning to the highest international standards – in safety, convenience and comfort – which is crucial in today’s very globalised and sophisticated travels. Beyond the prominence and buzz of the latest digitally enabled maintenance and operation regimes, here is a less visible – but equally important – aspect on upping the rail performance by replacing and rejuvenating assets for long term gains.</p> <p>Mid-Life Refurbishment of C751A North East Line (NEL) MRT Trains</p> <p>North East Line started in 20 June 2003, to date, it is due for mid-life refurbishment. Apart from improved interior and exterior carbody livery changes, new air-conditioning, public announcement passenger information system and event recorder will be featured. In addition, some improvement on the enhanced operation response during an incident was incorporated. Other scopes include are gangway refurbishment, structural repair and e.t.c. Four key thrusts were identified to determine the scopes of work, namely eliminate vulnerability, improve reliability, enhance operational</p>

studies supplemented by data analytics and the path ahead of us to achieving our overall reliability goals.

Teh Zhi Yu, Assistant Engineering Manager (NEL Rolling Stock), **SBS Transit Ltd, Singapore**

Data Modelling for Urban Rail - An Operator's Perspective

The content will include how SMRT exploits a variety of data types using different methodologies for various applications, e.g., time-series data for predictive maintenance using forecasting algorithms, operation data for passenger behaviour prediction using modelling & simulation, inspection data for automatic fault detection using (deep) machine learning, etc.

Dr. Su Yi, Director, Corporate Technology Management Office, **SMRT**

Data Analytics on Maintenance Data

The presented data analytics use unplanned maintenance orders (MO) as a proxy for fleet health condition. This is placed on a 3D visualisation framework to depict a time-space perspective. The utilities for comparative analysis and outlier identification within a single-frame become apparent. It also facilitates a drill-down to component level accountability and a basis for correlation to operation concerns. The resulting pyramid-shape relation between the MO and delay severity counts, are reflected for three train-borne subsystems.

Dr. Chia Wee Lee, Director, Future Systems. Rolling Stock, **SMRT**

Integration of IRT's Instrumented Revenue Vehicles Condition Monitoring Technologies in Rail Operations

The Instrumented Revenue Vehicle (IRV) Technology developed by the Institute of Railway Technology at Monash University is an intelligent automated condition monitoring tool which is integrated into normal railway operations to reduce risks and improve efficiencies. The IRV reduces downtime during track condition measurements, measures dynamic vehicle responses due to track conditions, measures ride comfort and ride safety and links them to track condition and vehicle dynamics as well as prompts appropriate operational responses, such as the application of temporary speed restrictions when required. The IRV technology is also used to measure the effectiveness of maintenance activities and to identify track deterioration trends to schedule maintenance activities. The presentation will outline the integration of IRV real-time condition monitoring

response and enhance customer experience. Ultimate goal of mid-life refurbishment is to further boost of the NEL reliability.

Simon Lau Chit Siong, Senior Engineering Manager (NEL Rolling Stock), **SBS Transit Ltd, Singapore**

Laser Cladding Technology for Rail Steel Repair Applications

Laser cladding technology has great potential for rail steel repair applications. Laser cladding employs a robot assisted laser heat source and a powder-blown deposition process for metal additive repair of localized rail steel cracks and defects. This talk will present research on reliability tests on laser cladding repair trials at the Bishan Depot Test Track. On-going research work will also be presented for mainline track reliability test trials and the development of a track-based laser cladding repair system targeted for on-site rail crossings and switches repair applications.

Prof. John Pang, Professor, School of Mechanical & Aerospace Engineering, **Nanyang Technological University, Singapore**

Design Consideration for Power Supply Asset Replacement to Rail Transit System

The North-South East-West Line (NSEWL) is the first Mass Rapid Transit line in Singapore. It is approximately 102km long and comprises of 58 stations including the newly opened Tuas West Extension (TWE).

As the power supply system has been in operation for close to thirty years, it is deemed that the system is due for replacement and enhancement. The presentation illustrates the holistic approach on power supply asset replacement to rail transit system. The power supply asset replacement incorporates new designs and condition monitoring provisions taking into consideration of lessons learnt during the past 30 years of NSEWL operations. The holistic approach leverages on the technology and innovation with the intent to ease the operational and maintenance pressure with predictive and analytics features. The presentation also shares the challenges faced and solutions taken to overcome them during the implementation stages of the project while maintaining daily passenger train service. With new design and technologies implemented for the power supply system, NSEWL will be a more resilience and reliable mass rapid transit line in Singapore.

	<p>technology in railway operation and its benefits.</p> <p>Ravi Ravitharan, Director, Institute of Railway Technology, Monash University, Australia</p>	<p>Melvyn Thong, 2 Deputy Group Director, Rail, Electrical & Mechanical, Land Transport Authority</p>
12:30 - 13:30	Lunch	
13:30 – 15:00	<p>RAIL OPERATION AND MAINTENANCE East Ballroom 2</p> <p>The transportation sector, especially railways and metro have largely adopted Industry 4.0. The use of smart technologies is leading to improve quality of services, safety assurance, new savings, enhance resource utilisation and efficiency. This segment takes a closer look at how digitalisation and automation as a huge maintenance lever, new entrant technology that will re-shape the sector's operation and maintenance ecosystem and how individual companies can benchmark frontier players, prepare effectively for capturing value from the new opportunities.</p> <p>Realising Value in Condition in Condition Monitoring</p> <p>The presentation aims to provide an overview of the different usage cases for deployment of condition monitoring technologies on rolling stock assets.</p> <p>It will explore the potential benefits of each usage case from the perspective of value within the context of a performance driven maintenance regime.</p> <p>Robert Allan, Senior Project Manager / Head of Rolling Stock Projects Division, Land Transport Authority Singapore</p> <p>Improving Operational Profitability through Rail Condition Monitoring</p> <p>Bogie rotating components are witnessing accelerated innovative growth, starting from bearings through to life cycle optimisation. This vision guided the development of the SKF bearing IoT rail solution that can enable a digital revolution of bogie rotating systems. This technology is based on an open platform solution and can be easily integrated into third party systems to enable monitoring of the bogie rotating systems condition. This presentation will share some real life examples where Rail Operators have enjoyed maintenance cost reduction, enhanced passenger experience and improved operational efficiency due to practical and effective implementation of SKF Condition Monitoring technology and knowledge.</p> <p>Victor Martinez, Head of Global Competence Centre for Rail Condition Monitoring, SKF</p>	<p>SIGNALLING AND COMMUNICATIONS Virgo 1, 2</p> <p>Nowadays, the use of wireless and internet technologies is increasing in the railway and metro systems enabling bidirectional vehicle-to-ground communications. New signalling and communications solutions such as CBTC are here to alter how trains operates. However the biggest challenge is managing risks associated with the introduction of a new state-of-art CBTC signalling technology over an operating railway which might have been running well for decades. Hence understanding critical operation functions is key when deploying CBTC in defining the right requirements and solutions.</p> <p>The Taipei Metro's Experience with CBTC Systems</p> <p>The Wenhua Line was launched in July 2009. As the first line that used CBTC signaling systems, it experienced considerable instabilities and UPS anomalies in the initial stages of operation. Through our targeted optimization programs, the systems' reliability was finally able to satisfy operation requirements. This report focuses on our problem-solving experiences of the Wenhua Line, and how this experience subsequently fed into the specification requirements, design framework, system testing, and other refinement actions that were taken while building the second CBTC Circle Line.</p> <p>Kuo Tsair-Ming, Vice President, Taipei Rapid Transit Corporation</p> <p>Paris Metro: Adapting New Technologies in a Century-Old Infrastructure</p> <p>Paris metro is one of the oldest networks worldwide, constantly extended and modernized. Pioneering technology in introducing driving automation in the 60's, and computerized vital systems in the 80's, RATP is addressing another modernization cycle, embracing new technologies that allow tremendous capacities for service improvement, but also bring new challenges to face. CBTC is one of those key technologies allowing upgraded transportation capacities together with highest quality of service. Although this "market standard" has been preferably designed for new infrastructures ("green-field" projects), more and more revamping operations ("brown-field" projects) also use CBTC. This is how is doing RATP, which operates today 6 metro lines</p>

	<p>Connecting your Critical Assets with Wireless, Self-Powered Sensors; Moving Safely and Quickly to Condition Based Maintenance</p> <p>Knowledge of the condition of an asset enables the appropriate action to be taken at the appropriate time to enhance safety, enhance reliability and reduce costs.</p> <p>Perpetuum customers have completely eliminated breakdown in service due to the components that Perpetuum monitors and have significantly reduced their operating costs. Perpetuum's system measures vibration to assess the condition of rail assets because vibration is the earliest indicator of degradation of a rotating component. Analysis of the data from a degrading component reveals vibration signatures which indicate the amount of damage in that component. This allows us to give train operators many months of warning of an impending failure enabling them to remove defective components well in advance of failure and so prevent failure in service and move safely and quickly to Condition Based Maintenance.</p> <p>Tony Ward, Australian / NZ / SE Asia Sales Manager, Perpetuum Ltd</p> <p>Non-Contact Monitoring of Power Rail and Running Track Quality using Radio Frequency Induction</p> <p>Based on a patented radio frequency (RF) inductive sensing technology, a non-intrusive train-borne system has been developed. It monitors the quality of moving electrical contact between current collector device (CCD) and power rail, and between running rail and axle wheels. Through the collected data, early signs of potential faults related to power rail and track can be detected.</p> <p>Prof. See Kye Yak, Professor, School of Electrical & Electronic Engineering, Nanyang Technological University, Singapore</p>	<p>revamped with CBTC. The presentation will relate this experience and question the future of this technology.</p> <p>Claude Andlauer, Head of Railway Transportation Systems Engineering, RATP, France</p> <p>CBTC System Simulation and Testing</p> <ul style="list-style-type: none"> • Introduction to Railway Simulation and Testing at Birmingham • CBTC System Simulation • CBTC System Configuration Optimisation • CBTC System Function Testing <p>Dr. Lei Chen, Birmingham Fellow and Head of Railway Operation and Control Birmingham Centre for Railway Research and Education, School of Engineering (EASE), The University of Birmingham</p> <p>Experience in the Successful Implementation of Re-signalling for SMRT NSL & EWL with CBTC System – Brown Field Project</p> <p>As the signalling systems of developed metros in the region reach the age of replacement, it is crucial for the rail operators to implement resignalling. From the design, coordination, migration of the system and the commissioning of the system, the high complexity of the systems and the need to minimise disruption to existing operations, make resignalling a great challenge. By means of the Communications-Based Train Control (CBTC) technology, the exact position of a train is known more accurately and continuously than with the traditional signalling systems. This enables the rail operation to be managed in a more efficient and safe manner with even improved headway.</p> <p>Richard Wong, Principal Fellow, Systems and Technology, SMRT</p>
15:00 - 15:30	Afternoon Tea Break	
	RAIL OPERATION AND MAINTENANCE East Ballroom 2	SIGNALLING AND COMMUNICATIONS Virgo 1, 2
15:30 – 17:00	<p>Novel Non Destructive Testing of Railway Structure using Infrared Thermography</p> <p>Common non-destructive testing (NDT) methods used in rail inspection to detect flaws include visual inspection, ultrasonic testing, eddy current testing, magnetic particle inspection, radiographic testing, and electromagnetic acoustic transducer. Recently, infrared thermography (IRT) was proposed to be a promising NDT method for rail inspection due to its possibility for non-contact, non-radiative and large area inspection, thus implying a shorter</p>	<p>Methodology to Reduce the Influence of Interference in CBTC using Unlicensed Wireless Bands</p> <p>Recently, railways have begun using safety equipment that uses wireless communications for the train control system; this system- Communications-Based Train Control (CBTC)-is classified by whether a licensed or unlicensed band is used. Unlicensed bands, however, are also used for other purposes, which means they cannot guarantee a reliable communication network for CBTC. Our main conclusions are as</p>

	<p>inspection time. In this session, the use of IRT for non-destructive inspection of an old composite railway component will be addressed. This method is believed to either create lighter workload for existing inspectors or open up the possibility of automating the inspection procedures.</p> <p>Dr. Andrew Ngo Chun Yong, Deputy Head, Structural Materials Department, Institute of Materials Research and Engineering, Singapore</p> <p>Innovative Technique of Monitoring Switchgear Condition and Life Span</p> <p>Switchgears, Medium Voltage (MV) or Low Voltage (LV) play an important role in providing reliable power source for mass transit systems. It will be a dream for all engineers if a 'Smart Service Device' could manage maintenance, monitor and analyze the health condition, estimate its remaining life and propose remedy action. In this short sharing session, we will present the technology and innovative way of monitoring the switchgear to make the dream come true. Example, by monitoring the total time taken to close or open the gear, using high speed sampling and tracking of switchgear activation, from the signal received to the end of closing or opening cycle, including the monitoring of output voltage and current behaviors, we can analyze the switchgear health condition and schedule in advance the necessary action.</p> <p>Ong Peck Seng, Chief Technical Advisor, ABB</p>	<p>follows. First, after determining the position of an interference source, the system should be designed to perform CBTC communication in the area away from the location of the interference source. Second, CBTC communication should be performed in a position that can block an interference wave using structures, such as platform screen doors.</p> <p>Prof. Jun-ichi Takada, School of Environment and Society, Tokyo Institute of Technology, Japan</p> <p>Satoshi Nishida, PhD Student, School of Environment and Society, Tokyo Institute of Technology, Chief Engineer, Railway Signal Division, Kyosan Electric Manufacturing Co., Ltd., Japan</p> <p>Approach to Cybersecurity in Operational Technology (OT) System</p> <p>The presentation provides a brief description on Cybersecurity in IT and OT. The challenges in OT with Cybersecurity will be shared. How to manage the OT system wisely will also provide the audiences with better understanding what can be done. An introduction that continuous monitoring, detection and response to cybersecurity is implemented in the system and lastly the preparation towards Cybersecurity Act. This presentation concludes two good practical use cases in cybersecurity for OT system.</p> <p>Lim Thiam Siew, Assistant Vice President, SBS Transit DTL Ltd, Singapore</p>
17:00	End of Day Two	