

Signalling System Failure on 16 October 2018

LegCo Panel on Transport Subcommittee on Matters Relating to Railways

October 2018

Special Fare Days Thanks Passengers for Patience

- Adult Octopus holders enjoy Child Octopus concessionary fares
- Concessionary Octopus holders enjoy a flat fare of \$1 (except for the Airport Express, MTR Feeder Bus, journeys to or from Lo Wu and Lok Ma Chau stations and East Rail Line First Class Premium)





Latest Follow-up and Response

- The Government and the MTR Corporation are concerned about the incident
- Conduct in-depth investigation
- Set up an executive review panel involving overseas signalling experts and local railway experts
- Will review existing contingency plan
- Submit a detailed report in two months

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Brief on Train Service Disruption on 16 October 2018

Time	Issue
5:28 am	Trains on Tsuen Wan Line, Kwun Tong Line and Island Line were unable to receive stable train commands. Trains were switched to manual mode at reduced speed.
5:40 am	Maintenance staff arrived at signalling equipment rooms to look into the signalling fault and conduct repair works.
5:46 am	Maintenance staff informed OCC that the relevant signalling systems required rebooting.
5:52 am	Anticipated a longer recovery lead-time needed, MTRCL notified TD
5:57am	Informed passengers train service information via various channels
6:00am	Amber alert was issued.
6:20am	Rad alert was issued.
9:20 am	The recovery of Island Line was completed.
10:07 am	Signalling fault happened on Tseung Kwan O Line. Trains were switched to manual mode at reduced speed.
11:45 am	The recovery of lines were completed. Train service resumed normal.



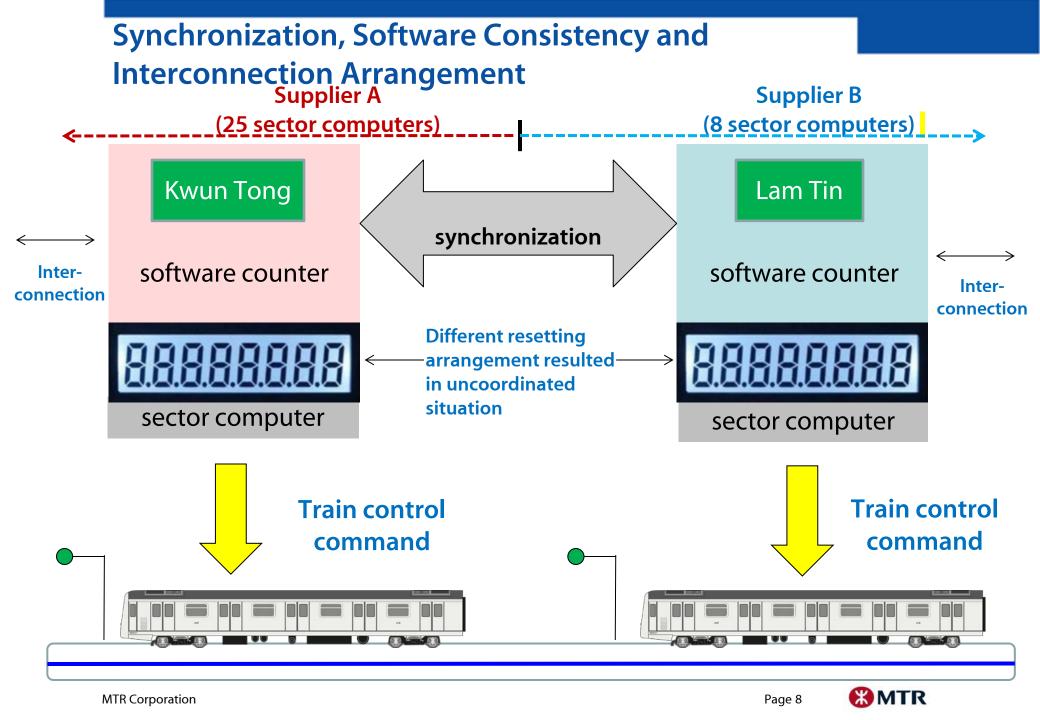
Initial Testing and Data Analysis Result

Sector Computer Distribution in the Signalling System and **Cross-line Network Management** Supplier B: 8 sector comouters (Kwun Tong Line and Network management Tseung Kwan O Line) Aims at deploying trains across lines flexibly and effectively Due to train operation, interconnection is 葵芳 美孚 長沙灣 大窩口 荔景 九龍塘 黄大仙 鑽石山 required 九龍 Mei Foo Cheung Sha Wan Lok Fu Wong Tai Sin Diamond Hill Choi Hung Tsuen Wan Tai Wo Hau Kwai Hing Kwai Fong **Kowloon Tong** 荔枝角 深水埗 石硤尾 Lai Chi Kok Sham Shui Po Shek Kip Mei Inter-connection of 牛頭角 寶琳〇 Ngau Tau Kok Po Lam 太子 Inter-conncection of sector computers from Prince Edward 觀塘 坑口 two suppliers sector computers 旺角 Kwun Tong Hang Hau Mong Kok between Tsuen Wan Line 何文田 藍田 油麻地 Ho Man Tin and Kwun Tong Line Yau Ma Tei Lam Tin 將軍澳 Tseung Kwan O 佐敦 Jordan Whampoa Supplier A: 尖沙咀 Yau Tong Tiu Keng Leng Tsim Sha Tsui 25 sector computers 康城 (Tsuen Wan Line, Island LOHAS Park Line and Kwun Tong Line) 香港大學 西營盤 上環 天后 炮台山 北角 西灣河 Sai Ying Pun Sheung Wan Central Wan Chai Causeway Bay Tin Hau Fortress Hill North Point Quarry Bay Tai Koo Sai Wan Ho Admiralty 筲箕灣 Shau Kei Wan 杏花邨 Inter-conncection of Heng Fa Chuen sector computers between Tsuen Wan Chai Wan MTR MTR Corporation Page 6 Line and Island Line

In-depth Investigation in Three Directions

- Software counters' resetting arrangement and date synchronization of the signalling system undertaken by two system suppliers
- Potential software compatibility problems of two system suppliers
- Interconnection and communication of the railway lines

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Immediate Measures

- Segregated the inter-connection between lines and reset all sector computers,
 all systems along the four lines have returned to stable operation
- Temporarily segregated the inter-connection of sector computers of Tsuen Wan Line, Island Line and Kwun Tong Line, minimizing the chance of lines being affected at the same time

No correlation between the incident and signalling system upgrading project

- Initial testing and data analysis result shows that different resetting arrangement of the software counters resulted in uncoordinated situation
- Through the synchronisation process and inter-connection of the service lines rendered the system unstable
- Incident occurred only after the signalling system was switched back to the existing one and operated normally for some time

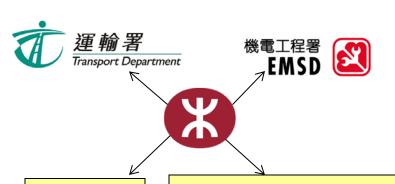
Confirmed by experts and two system suppliers

Page 9 **MTR**



Contingency Plan

Notification and Information Dissemination



Media Pasi

Passengers at stations and inside train compartments

Service disruption notification



Station notice



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▲ 荃灣綫額外行車時間

此訊息發放時間: 2018-10-16 05:56

荃灣越列車預計需要額外行車時間,請為行程預留充裕時間,我們會盡快提供進一步消息。

↑ 觀塘綫額外行車時間

此訊意發放時間: 2018-10-16 05:58

觀達接列車預計需要額外行車時間,請為行程預留充裕時間。我們會盡快提供進一步消息。

▲ 觀塘綫額外行車時間

此訊息發放時間: 2018-10-16 05:58

觀域終列車預計需要額外行車時間,請為行程預留充裕時間。我們會盡快提供進一步消息。

Traffic News

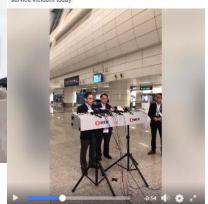


10月16日0

港鐵公司常務總監-車務及中國內地與務金澤培博士、港鐵公司車務 總監劉天成先生就港鐵車務狀況會見傳媒。

Dr Jacob Kam, Managing Director - Operations and Mainland Business and

Mr Adi Lau, Operations Director meet the media regarding the train



Media sessions



Manpower









Deployed an additional 400 staff to assist passengers and 55 maintenance staff to conduct on-site inspection and recover the systems

