



**CONSULTATION PAPER ISSUED BY
THE INFO-COMMUNICATIONS MEDIA DEVELOPMENT AUTHORITY
ON
INCORPORATING COMMON DUCT NETWORK AS AN INTERCONNECTION
RELATED SERVICE**

18 OCTOBER 2019

INTRODUCTION

1. The Info-communications Media Development Authority (“**IMDA**”) works with relevant government agencies to identify suitable sea corridors and landing sites for submarine cables to secure resources to enhance Singapore’s status as a key submarine cable hub. Having diverse submarine cable systems land in Singapore serves to not only keep international telecommunications costs low, but also strengthen the resilience and security of Singapore’s international telecommunications connectivity.
2. For any submarine cable system to land in Singapore, submarine cable operators would have to apply for the relevant permits for the deployment of submarine cable infrastructure, including the beach manhole (“**BMH**”) for the first landing point of the submarine cables. After the BMH, a submarine cable operator will also typically deploy its own terrestrial network (including its own set of ducts and manholes) from the BMH to inland Singapore, and finally to a cable landing station (to terminate the submarine cables). It is well established that such deployments are subject to the availability of space along the road reserves, existing infrastructure in the vicinity, and the approval of the relevant authorities.
3. To optimise the utilisation of the limited space from the Tuas South landing site to inland Singapore and for greater efficiency such as minimising disruptions from road opening works, there is a need for a common set of ducts (the “**Common Duct Network**” or “**CDN**”) to be built to cater for current and future demand by submarine cable operators to bring submarine cables from the BMH to the inland termination points in the Tuas South area or beyond (“**Tuas 9-way CDN**”)

PROPOSED CHANGES TO THE TCC

4. IMDA has appointed Singapore Telecommunications Limited (“**Singtel**”) as the operator for the Tuas 9-way CDN. The construction of the Tuas 9-way CDN is expected to be completed in early 2020. To ensure that the Tuas 9-way CDN will be made available at reasonable terms to Facilities-Based Operators (“**FBOs**”) landing submarine cables, IMDA intends to regulate the offer for the access to the Tuas 9-way CDN under Singtel’s Reference Interconnection Offer (“**RIO**”), whereby the terms and conditions are reviewed regularly and the rates are determined by IMDA (the “**RIO CDN Service**”).
5. Administratively, to regulate the RIO CDN Service, IMDA will need to modify and include the CDN within the schedule of Interconnection Related Services (“**IRS**”) and Mandated Wholesale Services (“**MWS**”) under Appendix 2 of the Code of Practice for Competition in the Provision of Telecommunication Services 2012 (also known as the Telecom Competition Code, or “**TCC**”). The said Appendix 2 specifies the IRS and MWS that the Dominant Licensee must offer under its reference interconnection offer, and the applicable requirements by which the Dominant Licensee must provide these services. The list of IRS currently regulated under the TCC are as follows:

- (a) Physical and Logical Interconnection;
- (b) Origination, Transit and Termination;
- (c) Essential Support Facilities;
- (d) Unbundled Network Elements; and
- (e) Unbundled Network Services.

There is currently no MWS regulated under the TCC.

- 6. IMDA is of the view that the CDN fulfils the characteristics of Essential Support Facilities (“**ESF**”) in the list of IRS. ESF are passive support structures, for which no practical or viable alternatives exist, that enable the deployment of telecommunication infrastructure. Given this, **IMDA proposes to regulate the RIO CDN Service as an ESF under IRS** within Appendix 2 of the TCC.
- 7. The ESF currently regulated under the TCC are (a) lead-in ducts and lead-in manholes, and (b) co-location. Lead-in ducts and lead-in manholes are ESF that house telecommunication transmission cables (e.g., copper, coaxial and/or fibre cables) that connect to buildings. A Dominant Licensee must offer to lease the lead-in ducts and lead-in manholes to FBOs for placing the latter’s own telecommunication transmission cables. Access to lead-in facilities is important to ensure fair and efficient competition amongst licensees, particularly for some locations where the lead-in facilities are “bottleneck” infrastructure and cannot be replicated or built.
- 8. Similar to lead-in ducts, ducts built as part of the CDN will be critical to ensure submarine cables that land have inland access to the submarine cable landing station(s). In the same vein, IMDA proposes to require Singtel, a Dominant Licensee, to offer under its RIO, the lease of the CDN ducts and associated manholes to FBOs for them to deploy their submarine cables from the BMH to the inland termination points.

INVITATION TO COMMENT

- 9. Pursuant to section 6.3.2(b) of the TCC, IMDA will seek public comment prior to adopting any modification to the list of IRS and MWS, and their applicable requirements specified in Appendix 2 of the TCC. Accordingly, IMDA’s proposed drafting changes to Appendix 2 of the TCC to regulate the RIO CDN Service as an ESF under IRS, are appended together with this consultation paper. IMDA hereby invites interested parties to submit written comments regarding the proposed changes.
- 10. All respondents are requested to keep their comments clear and succinct. All views and comments should be submitted in soft copy (in both Adobe PDF and Microsoft Word format) via email to Consultation@imda.gov.sg with the email header “Public Consultation on Incorporating CDN as an IRS”.
- 11. All submissions should reach IMDA by **12 noon, 1 November 2019**. All views and comments should be addressed to:

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12. IMDA reserves the right to make public all or parts of any written submission made in response to this consultation, and to disclose the identity of the respondent. Any part of the submission which the respondent considers to be commercially sensitive must be clearly marked and placed as a separate annex to the comments raised. IMDA will take this into consideration when disclosing the information submitted.