

MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

LICENCE MAPPING OF "IN-BUILDING COMMON ANTENNA SYSTEMS FOR MOBILE NETWORK OPERATORS"

Introduction

1. A Common Antenna System ("CAS") is a system which enables multiple mobile network operators ("MNO") to provide better coverage of their services inside buildings, especially in areas such as car parks and lifts.
2. At present, in most buildings, each mobile network operator has installed separate in-building cellular systems, which consist of a centrally located Base Transceiver Station ("BTS") and a Distributed Antenna System ("DAS") that spreads the radio frequency ("RF") signals from the BTS to individual antennas located at various parts of the building.
3. As an alternative, building owners may appoint a third party to install and operate a single CAS. The third party will negotiate with building owners, design and implement a single multi-band CAS according to the design criteria agreed by the MNOs who want to provide service coverage in a particular building.
4. A CAS consists of a central equipment room where the BTS equipment of MNOs will be housed, a multi-band combiner to combine the RF signals from the different BTS and a multi-band Distributed Antenna System ("DAS") to distribute the combined RF signal throughout the building.
5. Figure 1 shows the basic components of a CAS.

Licence Mapping of the Common Antenna System

6. The CAS will basically consist of antennas distributed at various locations inside a building and cabling from the equipment room in the building to the said antennas.
7. These network facilities are considered as "incidental network facilities" as defined in the Communications and Multimedia (Licensing) (Exemption) Order 2000.
8. An incidental network facility is defined as follows in the above-mentioned Exemption Order:

"Incidental network facility means a network facility which is subordinate and ancillary to the primary purpose of a network facility".
9. Therefore, the Commission is of the view that providers of Common Antenna Systems are exempted from having to hold a network facilities provider licence under the Communications and Multimedia Act 1998.

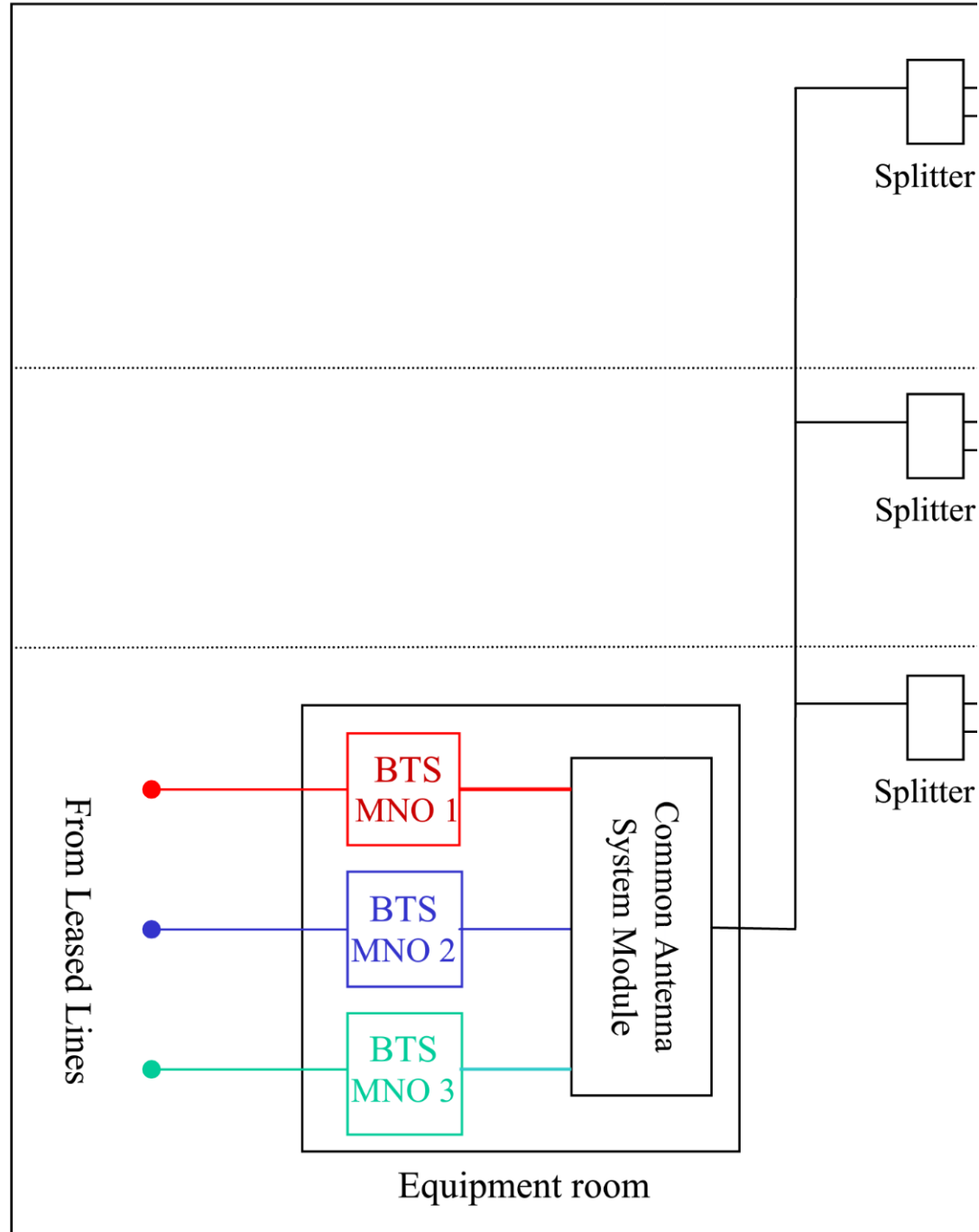
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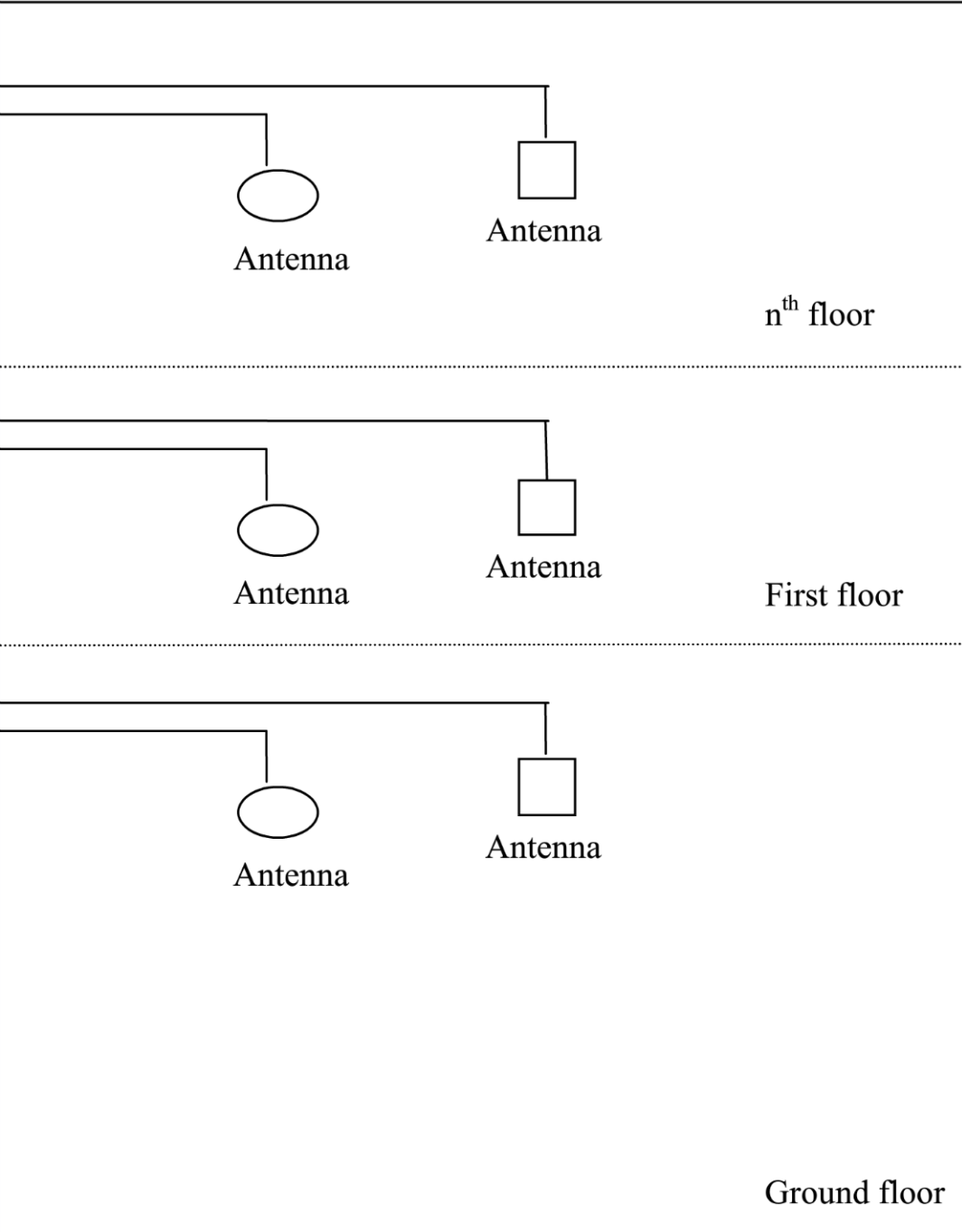
Figure 1 – Common Antenna System Operated by a Third Party



Note: The diagram above shows the basic components of a CAS on a single floor of the building. This is for illustration purposes only. There are other components and configurations that can be used.

Attachment 1

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S installed in a building. Only two antennas are shown on each floor. There can be more antennas on a floor depending on the CAS design.

