

NCC completes consultation on 5G vertical applications in 4.8–4.9GHz bands

Shay & Partners | Tech, Data, Telecoms & Media - Taiwan



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The National Communications Commission (NCC) recently completed its consultation on 5G vertical applications in the designated frequencies of 4.8–4.9GHz. It plans to enact a specific regulation for the operation of the designated mobile broadband networks no later than the end of 2021, subject to the results of spectrum clearance in the 4.8–4.9GHz band.

As illustrated in Figure 1, the NCC distinguishes the designated mobile broadband networks from the licensed use of mobile networks operating in the 3.5GHz and 28GHz bands by defining the designated mobile broadband networks as follows:

- a non-public network;
- a network in the n79 (4.8–4.9 GHz) band;
- a network that adopts 5G mobile communication technology, as defined by the 3rd Generation Partnership Project; and
- an exclusive network for private use in a specific location or geography zone that is accessed by designated user equipment.

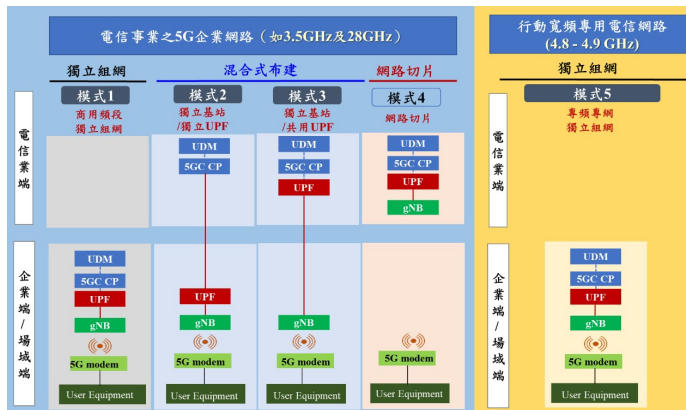


Figure 1: mobile network operator 5G enterprise network (models 1–4 in the blue block) versus designated mobile broadband network (model 5 in the yellow block)⁽¹⁾

A network will be a standalone network with a frequency licence that lasts for up to:

- 10 years, if it is built for the purpose of public service; or
- five years, if it is for private use.

The frequencies will be assigned between 10MHz and 100MHz for each application. The NCC will not process the assignments by auction but will consider carrying out contests for future applications.

The NCC will use the consultation to determine various further details of the new regulation, including:

- whether network slicing is allowed for standalone networks;
- whether the frequency assignment will be carried out on a first come, first served basis where multiple applications are filed for the same location or geography zone;
- categories of private use;
- fee rates of frequency usage;
- frequency coordination (the 4.7–4.8 GHz band and the 4.9–5.0 GHz band would be available for a 5G spectrum auction at a later stage);
- information security requirements; and
- network operator obligations.

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Endnotes

(1) The abbreviations used in Figure 1 are as follows:

- UDN – unified data management;
- CP – control plane;
- gNB – gNodeB;
- UPF – user plane function; and

- 5GC – 5G core network.