Abstract

Key words: Fixed Access Charge, Total Element Long-Run Incremental Cost （TELRIC）, VoLTE/VoIP Interconnection, Next Generation Network （NGN）, Fixed Mobile Convergence （FMC）

Fixed Access Charge （FAC） refers to the cost incurred when a telephony operator uses the network of fixed telephony operator to operate call services. The rates for FAC in 2019 are published as follows: fixed to fixed calls are 0.32NTD/minutes （peak） and 0.09NTD/minute （off-peak）, mobile to fixed are 0.4383 NTD （peak） and 0.2148NTD/minute （off-peak）, and toll or international calls are 0.32NTD/minute irrespective of the call time.

In order to assist the National Communications Commission in ensuring the standardization of FAC and Mobile Access Charge （MAC）, this study will establish a FAC cost model through the findings of previous studies and updates of various parameters previously applied, aiming to estimate the FAC from 2023 to 2026. This study will also renew the calculation logic and parameters setting with references to benchmark countries such as UK, Norway, and Portugal. The research team will subsequently consult via public discussion inviting telecom operators for their practical perspectives on parameter settings and take on advice after careful consideration.

This study recommends the implementation of Pure TELRIC model for FAC calculation. This study will conduct research on the current NGN development in various benchmark countries and will calculate FAC comprised of the cost from network elements implemented in a NGN architecture, enabling the FAC to reflect the advancement of telecom technology.

Moreover, there will also be international case studies on the current trend in IP voice call interconnection within this study. The research team expects to investigate countries that have already achieved complete implementation of VoLTE/VoIP interconnection such as Korea, Japan, and Kuwait, and the findings from aforementioned cases would be the key milestone in propelling Taiwan's development on VoLTE/VoIP interconnection.