

CAT TELECOM AND TOT MERGER

Will value be added?

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CPaaS

Market consolidation and emergence
of new players

CAT TELECOM AND TOT MERGER

In Jan 2020, the Thai government approved the merger of state enterprises CAT Telecom and TOT to form a new company, National Telecom (NT).

The merger is hoped to better prepare and equip CAT and TOT for rapid changes in technology and the telecom industry by allowing both CAT and TOT to explore future business opportunities together. The two operators currently have a small consumer market share, and generate most of their revenue from concession agreements with other domestic telcos.

The merger presents CAT and TOT with a number of opportunities and synergies, both on the revenue and cost-sides. On the revenue side:

- **CAT and TOT may explore new revenue streams from infra-sharing and digital services**, by leveraging their infrastructure assets. NT's combined tower footprint of ~35,000 sites and >3 Million Core-Km of fiber will provide more comprehensive coverage for customers. NT's combined spectrum holdings in the low (700MHz AND 850MHz from CAT), mid (2100MHz and 2300MHz from TOT), and high (26GHz from TOT) bands could also allow it to deploy 5G more reliably and with a higher Quality of Service (QoS). Due to the expiry and termination of CAT and TOT's concessions with the other MNOs (True, AIS, and DTAC), these new revenue streams would also improve the sustainability of their business models.

- **The merger also provides CAT and TOT with the opportunity to establish a more comprehensive portfolio of products and services.** For example, NT will own both domestic and international telephony assets, allowing it to offer a more complete suite of connectivity services. NT will also have a larger network due to the consolidation of CAT and TOT's tower, site, fiber, spectrum, and data centre assets, allowing it to provide better coverage and a higher Quality of Service (QoS).
- **The merger may enable CAT and TOT to offer higher quality 5G**, across the low, mid, and high spectrum bands. In addition to the faster speeds, higher bandwidth capacities, and wider coverage that consumers will enjoy, the rollout of 5G by NT may also help accelerate 5G adoption in Thailand, and support the Thai government's Thailand 4.0 initiative.

Cost-side synergies include:

- **Cost-savings from the elimination of duplicate CAPEX investments** (e.g. towers and sites in similar locations, spectrum in similar bands, duplicate 5G network equipment, lower maintenance and upgrading costs, etc.). NT will have a larger portfolio of assets including but not limited to spectrum bands, tower and site assets, fiber, and data centres. Without the merger, CAT and TOT may each need to invest in additional towers to increase coverage, or data centres to increase capacity. The merger may eliminate this unnecessary additional expenditure by either party.

- **Cost-savings from the streamlining of duplicate or unnecessary operations** (e.g. duplicate functions, headcount, staffing positions, processes, systems, etc.). As a newly formed entity, NT may be able to combine roles and responsibilities, re-organize teams and departments, restructure management and reporting lines, and align company SOPs and processes, so as to improve efficiencies, and align the company towards NT's new objectives and targets. For example, tower and cell site maintenance costs may be reduced, since only one maintenance team is required to service one tower or site per cell, as opposed to two separate teams before the merger (CAT and TOT).
- **Better economies of scale**, leading to reduced procurement costs. With a larger asset base, NT will potentially be able to benefit from lower prices from network equipment vendors, suppliers, and contractors.
- **CAT and TOT face uncertainty regarding their spectrum use rights** after the merger. One solution is currently being explored: whether TOT and CAT can each use existing spectrum until 2025 under their previous deal after the merger (to be decided by the Thai telecom regulator NBTC by Nov 2020).
- **CAT and TOT also have unresolved existing legal disputes** between themselves and between TOT and other private companies, which are still held up in multiple ongoing court cases (to be clarified by Office of the Attorney-General).
- **CAT and TOT have a large number of employees** (CAT with ~12,000+ and TOT with ~5,000+) that would be costly to lay-off, and who will also have to be restructured into the new NT entity.

However, CAT and TOT are likely to face some challenges during and after the merger.

- **CAT and TOT will need to integrate their organizational structures.** In addition to restructuring their existing companies, both companies will also need to accommodate a new business unit under NT's management structure to capitalize on digital and innovative development, as requested by the Thai Digital Economy and Society (DE) Ministry.
- **CAT and TOT may encounter some chain-of-command complications** and potential friction among managers about their roles in the merged company. CAT and TOT will need to combine their existing management structures, and rearrange current management positions. Some units from CAT and TOT may also be made redundant.

The strength of the merged entity NT lies in its infrastructure assets. Whether NT will become a pure infra-sharing provider, or a hybrid player in multiple verticals remains to be seen. What is certain though, is that if it succeeds, the merger of CAT and TOT is likely to have a significant and long-lasting impact on the telecommunications landscape in Thailand.

CPaaS

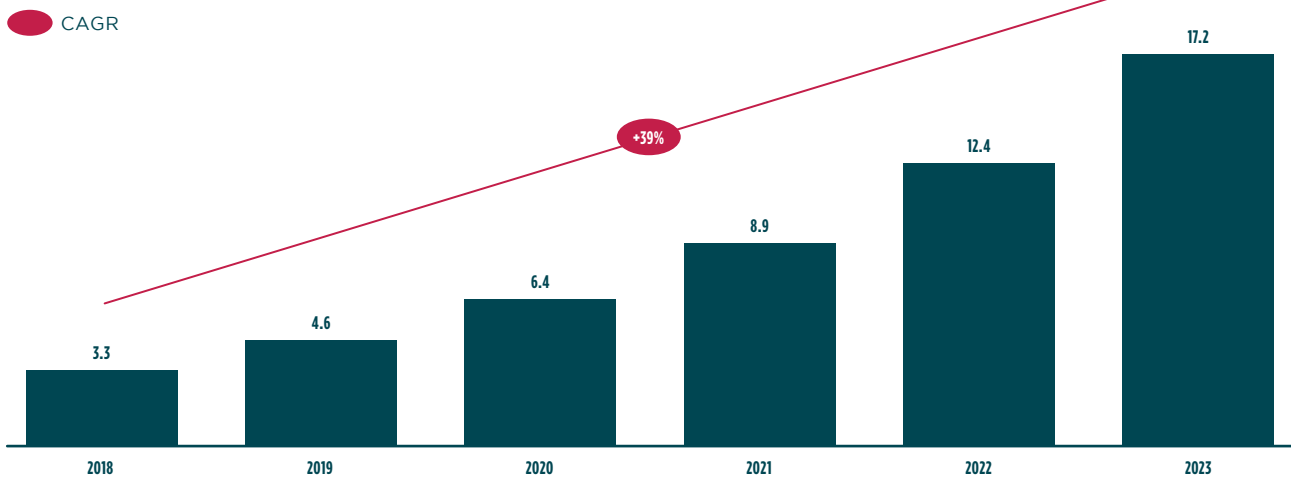
¹ Gartner

The telecommunications industry is entering a new era of digital transformation. Technologies such as cloud computing have enabled new use cases, products, and services. Communications Platform as a Service (CPaaS) vendors are one of the beneficiaries of this technological revolution. CPaaS players “offer application leaders a cloud-based, multilayered middleware on which they can develop, run, and distribute communications software. The platform offers APIs and integrated development environments that simplify the integration of communications capabilities (for example, voice, messaging and video) into applications, services or business processes.”¹

The global CPaaS market is expected to reach ~USD 17.2 Bn by 2023, a CAGR of ~39% from ~USD 3.3 Bn from 2018 (Exhibit 1).

This rapid growth in the CPaaS market is driven by 5 main factors: The increasing adoption of CPaaS solutions by companies across various industries, the increasing integration of new product and service segments (e.g. video and email), the development of new use cases for CPaaS across different industries, e.g. chatbots in e-commerce, IoT in logistics etc., the improving engagement of enterprise developers (e.g. via social media, video & email notifications) with innovative digital solutions for customer engagement, and the migration of communication services to the Cloud to increase delivery rates and speed at reduced cost.

EXHIBIT 1
Global CPaaS market, USD billion



Source: IDC (International Data Corporation), Value Partners analysis.

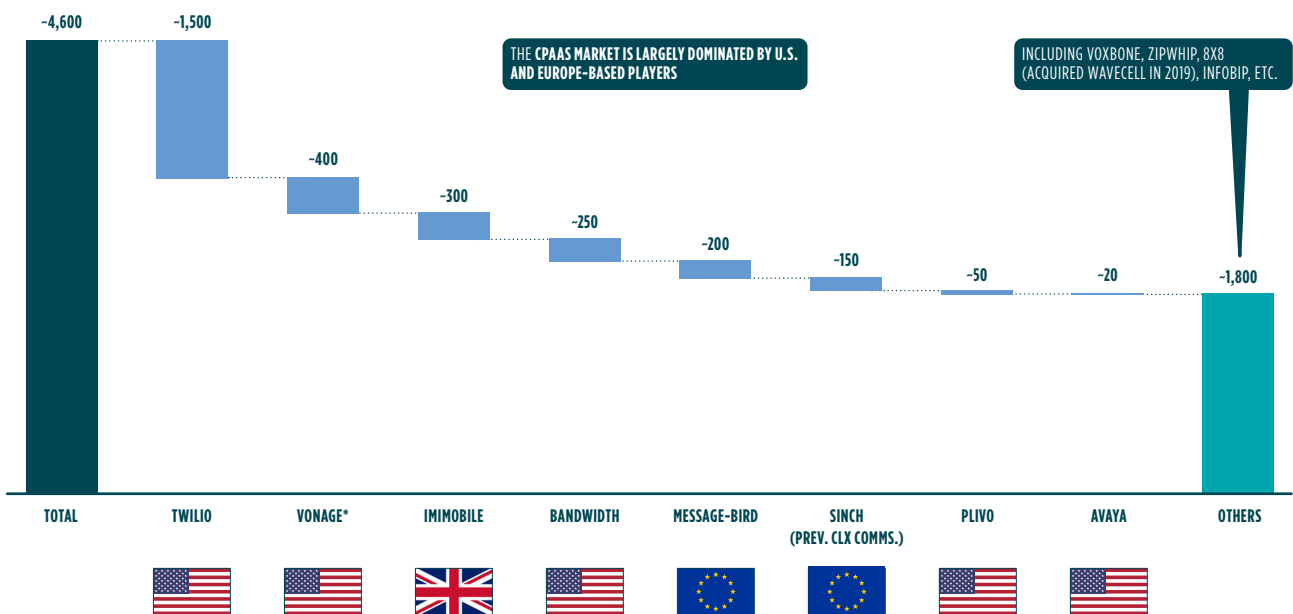
In general, CPaaS players include both telecom operators and CPaaS companies. Telecom operators have more control over connectivity infrastructure, supply, and quality, and have a regulatory advantage as industry incumbents. However, they do not yet have the capabilities to build and provide their own communication APIs (without acquisitions). Therefore, as seen in Exhibit 2, the CPaaS market is still currently dominated by CPaaS companies.

CPaaS companies can provision services via APIs, serve as one-stop shops for developers, and are pioneers in the “Programmable Telecoms” space. However, they have little or no control over their connectivity supply and quality, and face high barriers to entry if they wish to become full-fledged operators.

In recent years, the CPaaS market has undergone significant consolidation. For example, in 2015, Cisco entered the CPaaS market via its acquisition of Tropo for an undisclosed sum. Cisco has since integrated Tropo within its Cisco Webex development hub. In 2016, Vonage acquired Nexmo for ~USD 230 mn, primarily to bolster its position and increase its capabilities in the market. 8x8’s acquisition of Singapore-based Wavecell in 2019 for ~USD 125 mn provided it with access to the fast-growing Southeast Asian market, and a more comprehensive API product portfolio.

In December 2019, MessageBird acquired Telserv for an undisclosed amount, expanded its SMS, voice, and chat solutions to include Telserv’s virtual numbers platform.

EXHIBIT 2
Total CPaaS market, USD million, 2019



Source: IDC, Company financial reports, Synergy Research Group, Value Partners analysis.
Note: (*) Acquired Nexmo in 2016.

As shown, most acquisitions in the CPaaS market are undertaken to enter new markets, consolidate market positions, and enhance the acquirers' product portfolios. CPaaS players, rather than telecom operators, have also been much more active in the M&A market, since it is more likely that CPaaS players recognize the value and growth that is happening in the market, and telecom operators have recently prioritized other digital transformation verticals such as media & content, cloud computing, and cybersecurity (see Value Partners' July 2019 Perspective titled "Leveraging Digital Technologies to Achieve New Growth: How Should Telcos Act?").

CPaaS players are also seen to benefit their customers by enabling enterprises to scale quickly into new market segments through affordable, cloud-based APIs.

Virtual numbers, SMS messaging and voice-based APIs enable enterprises to communicate and engage with their customers directly, and since it is cloud-based, allows enterprises to provide the same (or better) services without the need for expensive landlines or physical infrastructure investments. APIs also allow a faster rollout of customer-centric features without high in-house development costs, accelerating the digital transformation process of many B2C players.

A large majority of CPaaS players are from the US or Europe, where the market is more mature (Exhibit 2). Twilio and Vonage are the largest CPaaS players in the US, with Twilio having a ~33% share of the market. The top 5 players globally make up ~60% of the total CPaaS market.

In the APAC region, the CPaaS market is more fragmented and less developed compared to the US or Europe. CPaaS players in Asia will need to connect directly with each MNO in each market, and manage each of these relationships. Conversely, in the US and Europe, there are companies which serve as aggregators for incoming traffic, and offer reasonable pricing structures for capacity. In addition, the APAC region also has a more fragmented telecoms regulatory structure than the US or Europe. Many countries in Asia have less comprehensive CPaaS-specific regulations, with few pricing guidelines or incentives for MNOs to collaborate with CPaaS players for example.

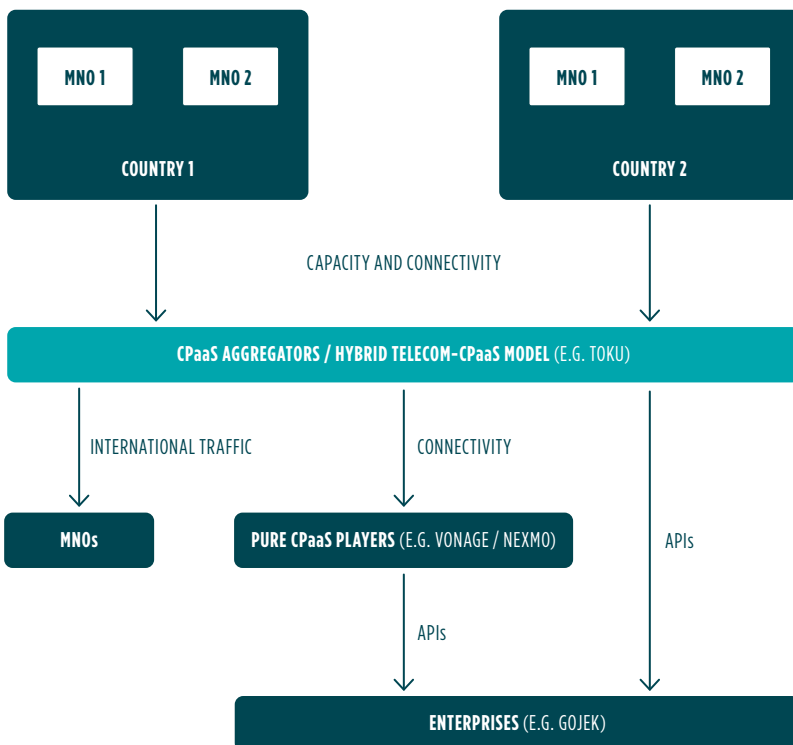
The top 5 players globally make up ~60% of the total CPaaS market, and none of them is Asia-based.

On the other hand, this fragmentation in the APAC market has opened the door for new players in the CPaaS market. New entrants such as Toku, a Singapore-based CPaaS start-up aiming to close a series-A funding round this year, offer wholesale and network connectivity gateway services for enterprise customers such as Gojek.

To differentiate itself from other CPaaS players, Toku positions itself as having both a high control over connectivity supply, as well as a high level of hybrid expertise (as a licensed operator and digital service provider) (Exhibit 3).

The trend of consolidation is likely to continue as the market continues to develop and mature. In the APAC region, partnerships between telecom operators and CPaaS players are also likely to increase as telcos look to enter the growing CPaaS market. Given the increasing demand for better, more modern, and higher quality communications services, especially in Asia, the future of the CPaaS market looks promising.

EXHIBIT 3
APAC landscape and the emergence of CPaaS aggregators



ABOUT

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