

## MILITARY TIES OF MAJOR CHINESE STATE-OWNED TELCOM COMPANIES: CHINA MOBILE, CHINA UNICOM, CHINA TELECOM

February 2, 2021

On June 12, 2020, the U.S. Department of Defense (DoD) added China Mobile and China Telecom to its list of Communist Chinese Military Companies (CCMCs) on the basis of the companies' involvement in China's military-civil fusion national strategy. On August 28, 2020, China Unicom was also added to this list of CCMCs.<sup>1</sup> The three companies' securities are subject to forced divestment by U.S. individual and institutional investors in accordance with Executive Order 13959, entitled "Addressing the Threat from Securities Investments that Finance Communist Chinese Military Companies," (E.O. 13959) issued on November 12, 2020 (and amended on January 13, 2021).<sup>2</sup>

Following a series of reversals, the New York Stock Exchange confirmed on January 6, 2021 that it would delist the American depository receipts (ADRs) of China Mobile, China Telecom, and China Unicom in response to the E.O., effective January 11.<sup>3</sup> All three companies contested the move and filed separate requests on January 21, 2021 – less than a day after Joe Biden was sworn in as the new U.S. President – asking the NYSE to again reverse its decision.<sup>4</sup>

The Pentagon designations of China Mobile, China Telecom, and China Unicom as CCMCs are not without merit. All telecommunications in China are supervised by the Ministry of Industry and Information Technology under the State Council, and the three companies are obliged to comply with government policies and directives, as well as to uphold and protect China's national security and state secrets. In practice, this has resulted in the three companies' participation in national strategic initiatives (military-civil fusion) and strategic infrastructure projects (South China Sea network construction), the enabling of censorship (suspension of

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<sup>1</sup> [https://media.defense.gov/2020/Aug/28/2002486689/-1/-1/1/LINK\\_1\\_1237\\_TRANCHE-23\\_QUALIFYING\\_ENTITIES.PDF](https://media.defense.gov/2020/Aug/28/2002486689/-1/-1/1/LINK_1_1237_TRANCHE-23_QUALIFYING_ENTITIES.PDF)

<sup>2</sup> <https://www.federalregister.gov/documents/2020/11/17/2020-25459/addressing-the-threat-from-securities-investments-that-finance-communist-chinese-military-companies>

<sup>3</sup> <https://www.reuters.com/article/us-china-usa-telecom/nyse-to-delist-three-chinese-telecoms-in-dizzying-about-face-idUSKBN29B1TR>

<sup>4</sup> <https://www.wsj.com/articles/chinese-telecom-carriers-ask-nyse-to-make-another-u-turn-on-delisting-11611223140>

services in selected areas), and alleged involvement in malicious cyber activities (such as the redirecting of internet traffic).

## [China Mobile Communications Group Co., Ltd.](#)

Listed in mainland China, China Mobile is at least 70% state-owned, meaning that the company operates in accordance with government policy. Today, the company has eclipsed both China Telecom and China Unicom in size and controls over 60% of China's domestic phone market. China Mobile has invested considerably in developing robust 4G networks throughout mainland China. These efforts, however, have also included telecom infrastructure work on the artificial islands built and militarized by China in the South China Sea.

## [Military-Civil Fusion Projects](#)

China Mobile has been deeply involved in the efforts of the People's Liberation Army (PLA) to improve military communications. Past projects include constructing local military telephone networks, developing smart military bases, and providing emergency communication support during major military exercises and events.

China Mobile signed a strategic agreement on military-civil fusion with the PLA on December 9, 2016. Under the agreement, China Mobile was to play a role in building an integrated army network information system to bolster multi-domain combat effectiveness. The two sides agreed to cooperate in seven areas: information infrastructure, emergency communications support, command and control, smart military bases, information systems and resource development, information security, and informatization talent training.<sup>5</sup>

The China Mobile Grand Connection Strategy Civil-Military Integration Summit was held in Beijing on July 30, 2018 in commemoration of the 91<sup>st</sup> anniversary of the PLA's establishment. The forum was sponsored by several branches of the company including: China Mobile Beijing; China Mobile Government and Enterprise; China Mobile International; and China Mobile Internet of Things, jointly with the Civil-Military Integration (Beijing) Equipment Technology Research Institute.

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<sup>5</sup> <http://military.people.com.cn/n1/2016/1212/c1011-28941711.html>

- Attendees included representatives from the Civil-Military Integration Promotion Department of China's Ministry of Industry and Information Technology, the Science and Technology Committee of the PLA General Armament Department (renamed the Equipment Development Department), the PLA Air Force Equipment Research Institute, and the PLA Academy of Military Sciences.
- Fan Yunjun, general manager of China Mobile Beijing, gave a speech at the event on the importance of information and communications technology (ICT) in strengthening the PLA. Fan stated that China Mobile "fully implements Xi Jinping Thought on building a strong military" and pledged to deepen the company's participation in the national strategy of military-civil fusion.<sup>6</sup>

### South China Sea Operations

China Mobile provides telecommunications systems in the contested Paracel (Xisha) islands and Spratly (Nansha) islands in the South China Sea, not only to service civilian and military personnel, but also to upgrade daily operations, including signals intelligence and location services. In February 2018, the three operators signed a framework agreement with the PLA Navy (PLAN) South China Fleet to upgrade 4G network coverage in both the Paracels and Spratlys. The PLA predicted that the project would increase the number of 4G+ telecommunications base stations by May 2018, improving conditions for both "civilians and military" on the islands.<sup>7</sup> China has expanded its military presence in the South China Sea with the construction of various military installations including ammunition bunkers, missile silos, airstrips, and aircraft hangers.

### License Denial on National Security Grounds

In May 2019, the U.S. Federal Communications Commission (FCC) denied China Mobile International (USA)'s Section 214 application to provide international telecommunications services between the U.S. and foreign destinations. The decision was made after an extensive national security and foreign policy review by relevant Executive Branch agencies, which concluded that the application "raises substantial national security and law enforcement risks" due to "several factors related to China Mobile USA's ownership and control by the Chinese government."<sup>8</sup>

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<sup>6</sup> [https://www.sohu.com/a/244271478\\_727324](https://www.sohu.com/a/244271478_727324)

<sup>7</sup> [http://www.xinhuanet.com/english/2018-02/02/c\\_136944795.htm](http://www.xinhuanet.com/english/2018-02/02/c_136944795.htm)

<sup>8</sup> <https://www.fcc.gov/document/fcc-denies-china-mobile-telecom-services-application>

According to then-FCC Chairman Ajit Pai: “The Chinese government could use China Mobile to exploit our telephone network to increase intelligence collection against U.S. government agencies and other sensitive targets that depend on this network.”<sup>9</sup>

## [China United Network Communications Group Co., Ltd. \(China Unicom\)](#)

China Unicom was founded by the State Economic and Trade Commission, Ministry of Railways, Ministry of Electronics Industry, Ministry of Electric Power, and Ministry of Post and Telecommunications. It expanded in 2001, when Beijing Shenzhou Great Wall Communications Development Center handed its CDMA mobile communications networks over to China Unicom as part of the PLA’s commercial divestment drive.<sup>10</sup>

### Military-Civil Fusion Projects

China Unicom’s provincial branches have been contracted by the PLA to supply switchboards, fiber-optic cables, smart military base systems, and other equipment for PLA units – in particular, newly formed or reorganized corps-level units. China Unicom also provides PLA engineering training.

- In 2017, China Unicom (Luzhou) requested tenders to procure a smart barrack management system, for the Second Artillery Corps in Luzhou, Sichuan (Unit 96038).<sup>11</sup>
- China Unicom (Liaoning) launched a request for tenders to select a construction contractor to renovate areas of the PLA Shenyang Joint Logistic Support Center, a unit of the Central Military Commission’s Joint Logistic Support Force.<sup>12</sup>
- China Unicom (Guangzhou) made a request for tenders to select a contractor to supply enterprise mobility management (EMM) hardware and software, as well as provide on-site technical guidance and personnel training, to support smart military base

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<sup>9</sup> <https://www.wsj.com/articles/fcc-denies-china-mobiles-bid-to-provide-international-telecom-services-in-the-u-s-11557416760>

<sup>10</sup> <http://www.jstor.org/stable/10.2307/resrep11976.13>

<sup>11</sup> <http://www.zbytb.com/s-zb-1691549.html>

<sup>12</sup> <http://www.huixinsy.com/article/936.html>

construction for the 42<sup>nd</sup> Army's 9<sup>th</sup> Armored Brigade in Huadu, Guangdong (Unit 53263).<sup>13</sup>

- China Unicom (Shandong) partnered with local bureaus and the Yantai Garrison's communications unit to inspect the fiber-optic cables along the Yantai-Weihai intercity railway and promote the importance of national defense communications.<sup>14</sup>
- In January 2018, China Unicom (Huaihua) subcontracted Donghong Information Technology to supply program-controlled switchboards for the 55 Base Second Artillery Force in Huaihua, Henan (Unit 96783).<sup>15</sup>
- China Unicom has a school-enterprise partnership with Changsha Vocational and Technical College (former Hunan Post and Telecommunication College), which serves as a PLA Hunan Reserve Infantry Division communications training base.<sup>16</sup>

## South China Sea Operations

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## Cybersecurity and Espionage

A Mandiant report published in February 2013 found that the APT1 cyber espionage unit was based in the PLA General Staff Department's 3<sup>rd</sup> Department, 2<sup>nd</sup> Bureau (Unit 61398).<sup>18</sup> APT1 has primarily targeted U.S. corporations in various sectors, including aerospace, information technology, government, energy, and transportation. The majority of cyber-attacks by APT1,

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<sup>13</sup> [http://blog.sina.com.cn/s/blog\\_a3f2f5990102y2qa.html](http://blog.sina.com.cn/s/blog_a3f2f5990102y2qa.html);

<http://www.chinaunicombidding.cn/jsp/cnceb/web/info1/detailNotice.jsp?id=2861703300000010774>

<sup>14</sup> <http://www.sdzps.com/knowledge/1503911320832.html>; <http://his.wmxa.cn/h/201506/249239.html>

<sup>15</sup> <http://zx.ejmrh.com/mcjhtml/armyInformationBuild/20180102/21555.html>

<sup>16</sup> [http://changsha.caiep.net/changsha\\_wenjiaodanwei/content.php?id=59787](http://changsha.caiep.net/changsha_wenjiaodanwei/content.php?id=59787)

<sup>17</sup> [http://www.xinhuanet.com/english/2018-02/02/c\\_136944795.htm](http://www.xinhuanet.com/english/2018-02/02/c_136944795.htm)

<sup>18</sup> <https://nsarchive2.gwu.edu/NSAEBB/NSAEBB424/docs/Cyber-083.pdf>

which involve injecting malware and gaining remote desktop or software access, have originated from Chinese IP addresses registered to China Unicom Shanghai Network.<sup>19</sup>

## Activities in Sanctioned Countries

China Unicom reportedly enabled North Korea's first full-time, wide-bandwidth internet connection, linking the country via a connection through China. Subsequent reports showed many IP addresses from the country registered as having been assigned by China Unicom. Pyongyang has since supplemented this connectivity with new links provided by Russian telecommunications company TransTeleCom.<sup>20, 21, 22, 23</sup>

## China Telecommunications Corp. (China Telecom)

The Ministry of Posts and Telecommunications was responsible for the creation of China Telecom in April 1995 as China Directorate General of Telecommunications. China Telecom was the first major state-owned Chinese company to be partially privatized, which took place in 1997 when the company was partially listed on the New York Stock Exchange.

## South China Sea Operations

China Telecom set up internet services in the contested Paracel (Xisha) islands in the South China Sea as early as 2007, enabling access for on-island military personnel and installations. Along with China Unicom and China Mobile, China Telecom also provides telecommunications systems in the Spratly (Nansha) islands, not only to service civilian and military personnel, but also to upgrade daily operations, including signals intelligence and location services. In February 2018, the three operators signed a framework agreement with the PLA Navy (PLAN) South China Fleet to upgrade 4G network coverage in both the Paracels and Spratlys.<sup>24</sup>

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<sup>19</sup> <https://arxiv.org/pdf/1602.07128v1.pdf>

<sup>20</sup> <https://www.38north.org/2017/10/mwilliams100117/>

<sup>21</sup> <https://nknetobserver.github.io>

<sup>22</sup> <https://www.whoishostingthis.com/blog/2016/11/09/north-korea-internet/>

<sup>23</sup> <https://www.northkoreatech.org/2011/06/26/north-koreas-chinese-ip-addresses/>

<sup>24</sup> [http://www.xinhuanet.com/english/2018-02/02/c\\_136944795.htm](http://www.xinhuanet.com/english/2018-02/02/c_136944795.htm)

## Cybersecurity and Espionage

There have been reported cases of China Telecom systematically diverting internet traffic in the U.S., Canada, Italy, Japan, Thailand, and Scandinavia through Chinese-controlled “points of presence” across the country’s internet backbone. According to Yuval Shavitt of Tel Aviv University, who published a paper on the topic in October 2018, China Telecom is “a company that wants to make profits, of course, but it is also owned by the Chinese government and it is used by the Chinese government for these kinds of operations.”<sup>25</sup>

## Activities in Sanctioned Countries

A Nautilus Institute report from 2011 found that the North Korean state-owned Korea Post and Telecommunications Corporation signed a memorandum of understanding with China Telecom in 2010 on expanding bilateral cooperation and internet connectivity to monitor and provide security solutions for internet services.<sup>26</sup>

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<sup>25</sup> <https://scholarcommons.usf.edu/cgi/viewcontent.cgi?article=1050&context=mca>

<sup>26</sup> [http://nautilus.org/wp-content/uploads/2011/12/DPRK\\_Digital\\_Transformation.pdf](http://nautilus.org/wp-content/uploads/2011/12/DPRK_Digital_Transformation.pdf)