

ALIBABA AND ANT GROUP:

INVOLVEMENT IN CHINA'S MILITARY-CIVIL FUSION INITIATIVE

October 2, 2020

Military-Civil Fusion Discussions with Defense Industry Stakeholders

In January 2019, executives from Alibaba and Ant Group met with representatives from the Military-Civilian Fusion Division of the Xi'an Development and Reform Commission and the Xi'an Weapons Science & Technology Industrial Base (西安兵器工业科技产业基地) to discuss the development of next-generation information technology (IT) and opportunities for military-civil fusion.¹

- The Xi'an Weapons Base is a collaboration between Shaanxi Province and state-owned defense conglomerate China North Industries Group Corp. (Norinco), located in Jingwei New City.²
- The Xi'an Weapons Base is the central node for several defense innovation incubators unveiled in November 2018. These include: the Military-Civil Fusion Innovation Center; the Shaanxi Provincial Science and Technology Resource Coordination Center for Military-Civil Fusion; the Military-Civil Dual-Use Technology Transfer Center; the Norinco Science and Technology Resource Coordination Center; and the Norinco Military-Civil Integration and Innovation Demonstration Center.³
- Norinco is a state-owned defense conglomerate that operates hundreds of factories, research institutions, and trading companies. It manufactures a range of weapons and military equipment and serves an important role in China's national defense modernization drive.

¹ <https://kuaibao.qq.com/s/20190117A14NK300>

² <http://cpc.people.com.cn/n1/2017/0615/c64387-29342231.html>

³ http://www.cnr.cn/sxpd/shgl/20181128/t20181128_524429209.shtml;
<http://www.sastind.gov.cn/n112/n117/c6804522/content.html>

Alibaba's Big Data Tech as a Potential Strategic Military Resource

The vice president of Alibaba Cloud Computing, Song Jie, spoke at the inaugural Military Big Data Forum hosted by the Academy of Military Sciences of the People's Liberation Army (PLA) in July 2018, where military, academic, and business leaders deliberated on ways to transition the benefits and technologies of e-commerce to national defense. The forum was co-organized by the Chinese Academy of Sciences, Tsinghua University, and the Chinese Institute of Command and Control. Experts at the forum discussed big data technology as a strategic military resource and agreed that the Chinese military should learn from private companies and should strengthen military-civil fusion efforts.⁴

According to Song, big data plays a significant role in urban governance through the implementation of services such as monitoring and early warning, emergency command, intelligent decision-making, and operational linkage. Alibaba Cloud is China's largest cloud service provider and provides a full suite of big data analytic tools as one of the fastest growing cloud computing platforms in the world.⁵

Role in Developing China's Military Cloud Computing System

Chengdu Westone Information Industry Inc. (卫士通信息产业股份有限公司) is a leading information security equipment provider in China and, according to reports, is a major cybersecurity and communications encryption supplier for the PLA.⁶ The company was established by the 30th Research Institute of CETC (China Electronics Technology Group Corp. is a large state-owned military electronics conglomerate) and is affiliated with the PLA Information Engineering University, which develops military high-tech weapons and information security equipment.⁷

- In May 2018, Westone announced that its parent company CETC had signed a strategic cooperation agreement with Alibaba Cloud to develop a high-security cloud platform known as "Cybersecurity Feitian" for military customers.⁸ According to a report from

⁴ <http://www.d1net.com/bigdata/news/530236.html>

⁵ https://www.researchgate.net/publication/315874578_Big_Data_Analytics_and_Intelligence_at_Alibaba_Cloud; <https://www.alibabacloud.com/solutions/data-analytics>

⁶ <https://www.intelligenceonline.com/corporate-intelligence/2020/06/24/westone-top-pla-cybersecurity-and-encryption-supplier,109240261-art>

⁷ http://dacas.iie.cas.cn/xwdt/kydt/201708/t20170830_381087.html

⁸ https://quotes.money.163.com/f10/ggm_x_002268_4433708.html

October 2018, Westone is planning to expand its military business by collaborating with Alibaba Cloud and other key tech companies to develop the platform.⁹

- Military cloud computing is more complex than civilian cloud computing due to the high requirements for information security and confidentiality, and this joint project with Alibaba would be considered an important achievement in the Chinese military's IT infrastructure construction. China is working to develop a military cloud computing system in a race that parallels the United States.¹⁰

R&D Contributions to Government AI, Biometric Capabilities

In December 2018, the Hangzhou municipal government released a set of implementation opinions on accelerating the development of military-civil fusion. The opinions address eight key industries, including artificial intelligence (AI), and proposes relying on five research institutions, including the Alibaba DAMO Academy, to develop AI operating systems, databases, and application software for use in robotics, unmanned aerial vehicles, unmanned driving, virtual reality, medical assistance, and intelligent security capabilities.¹¹

- The Alibaba DAMO Academy for Discovery, Adventure, Momentum, and Outlook (阿里巴巴“达摩院”) is the company's innovative research initiative composed of global research centers and joint laboratories, in partnership with universities and industry labs, that engage in high-tech R&D in fields such as AI, quantum computing, machine learning, network security, chip technology, and robotics.¹² It was established in October 2017.¹³ Many Ant Group executives and researchers have leadership roles within Alibaba DAMO laboratories.¹⁴
- The Alibaba DAMO Biometric Laboratory, which develops data collection and recognition capabilities across biometric modalities (face, fingerprint, iris, palm, voice,

⁹ http://vip.stock.finance.sina.com.cn/q/go.php/vReport_Show/kind/company/rptid/4392821/index.phtml

¹⁰ <https://www.cnbc.com/2019/08/14/pentagon-eager-to-resolve-jedi-contract-as-china-develops-military-cloud-system.html>

¹¹ <http://hzldzy.com/detail-3961.html>; http://www.hangzhou.gov.cn/art/2019/2/26/art_1629596_4522.html

¹² https://baike.baidu.com/reference/22159003/a0e6uuoPsRwrMfDBvH02vwomE2jZaGerxnL18LAha3o4-lisx_A5OrBl73zt45gaGo4ULclULFC1PhvV8pka3o-xQ8GM9Q0PjjvoAbYzUOlzNlz371W4dwdkZA;
<http://cn.chinadaily.com.cn/a/202006/12/WS5ee321f1a31027ab2a8cfd51.html>

¹³ http://www.xinhuanet.com/tech/2017-10/11/c_1121785713.htm

¹⁴ <http://tech.sina.com.cn/cs/2019-10-16/doc-iicezuev2556238.shtml>; <https://damo.alibaba.com/labs/finance-intelligence?lang=zh>

and behavioral), is heavily staffed with Ant Group researchers. Ant Vice President Jiang Guofei serves as the head of the lab, and the other three members of the team include the general manager of Ant Group's biometrics platform ZOLOZ Asia, an engineer working on machine vision systems at Ant Group, and an algorithm expert responsible for the R&D of Ant's biometric identity authentication system.¹⁵

- The Alibaba DAMO Blockchain Laboratory, which works on technologies such as cryptographic security and privacy protection, is reportedly led by Zhang Hui, the head of Ant Group's blockchain platform division.¹⁶ Other members of the team include Ant Group's former chief data technology architect and current staff engineers.¹⁷

Joint Venture with Norinco, Key Services Provider for Dual-Use BeiDou System

Qianxun Spatial Intelligence Inc. (千寻位置公司) is a high-precision satellite positioning services provider established in August 2015 by China North Industries Group Corp. (Norinco) and Alibaba Group, equally owned by both companies.¹⁸ Qianxun SI uses raw observation data from China's BeiDou Navigation Satellite System and cloud computing to provide precise positioning and location-based services to users across mainland China, including consumers of automobile and mobile phone products.¹⁹

- BeiDou is a national ground-based network developed indigenously for both civilian and military applications and allows the Chinese military to reduce reliance on foreign-controlled communication and navigation networks. BeiDou terminals have been deployed throughout the PLA ground forces, PLA Navy ships, Second Artillery Force, and the PLA Air Force.²⁰
- Qianxun SI operates the BeiDou Ground Base Enhancement System (BGBES), a network consisting of a series of ground base stations, and operating and precision positioning

¹⁵ <https://damo.alibaba.com/labs/biometrics?lang=zh>; <https://www.linkedin.com/in/hui-zhang-4225bb6/>

¹⁶ <https://www.hulianmaibo.com/posts/info/5210>

¹⁷ <https://www.linkedin.com/in/benquanyu>; <https://medium.com/alipay-and-the-world/how-building-real-world-uses-for-the-blockchain-helped-dr-ying-be-named-a-top-woman-in-tech-24e556e571d3>

¹⁸ https://www.sohu.com/a/282423036_475389;

<https://web.archive.org/web/20150824185412/http://www.norincogroup.com.cn/cn/newsdetail.aspx?id=38549&type=1>

¹⁹ <http://autonews.gasgoo.com/70016716.html>; <https://www.gpsworld.com/qianxun-si-u-blox-plan-to-bring-mass-market-high-precision-positioning-to-china/>

²⁰ <https://jamestown.org/program/putting-precision-in-operations-beidou-satellite-navigation-system/>

systems that support BeiDou by providing accuracy, but are not inherently part of BeiDou.²¹

- Norinco was involved in developing BeiDou and announced last year that it was building the BeiDou+ Land and Maritime Defense and Control System with BeiDou at its core to provide border defense personnel and unmanned aerial vehicles with high-precision monitoring and communication capability in border regions, including in Xinjiang and the South China Sea. The system has been adopted by China's frontier troops, public security forces, and coast guards.²²

Presence and Operations in High-Tech Zone with Military-Civilian Focus

Xiong'an New Area in Hebei Province is a new development under the direct management of the CCP Central Committee and the State Council, and is slated to become an urban smart city and regional economic engine.²³ According to a planning outline released in 2018, Xiong'an New Area is positioned to develop emerging high-tech capabilities, promote the development of military-civil fusion, and address China's strategic needs, among other civilian functions.

- Alibaba Group and Ant Group both signed a strategic cooperation agreement with Xiong'an New Area on November 8, 2017 and were among the first 48 entities to set up operations in the area. Alibaba has also registered at least three subsidiaries in Xiong'an: Alibaba Xiongan Technology; Ant Financial Xiongan Digital Technology; and Cainiao Xiongan Network Technology.²⁴
- The head of the local Reform and Development Bureau called for military industrial groups to relocate their R&D bases to Xiong'an.²⁵ Accordingly, dozens of high-tech companies and research institutions launched local projects, including Tsinghua University's National Defense Technology High-End Laboratory and Alibaba's Cainiao Smart Logistics Future Center Project.²⁶

²¹ <https://m.marketscreener.com/quote/stock/SPREADTRUM-COMMUNICATIONS-55453/news/Spreadtrum-Communications-Joins-Forces-with-Qianxun-Weizhi-to-Accelerate-the-Industrialization-of-23212216/>; <http://www.un-spider.org/news-and-events/news/beidou-navigation-satellite-system-ground-system-improves-precision>

²² http://eng.chinamil.com.cn/view/2019-05/24/content_9513199.htm

²³ <https://welcometochina.com.au/xiongan-new-area-6694.html>

²⁴ <http://www.bjlhqc.com/cmi/index.php?ac=article&at=read&did=198>

²⁵ <http://finance.sina.com.cn/china/2018-05-17/doc-iharvfhu6598298.shtml>

²⁶ <http://www.bjlhqc.com/cmi/index.php?ac=article&at=read&did=198>

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