

September 28, 2021

## KKR's Cue Group

### Executive Summary

KKR & Co. Inc. owns and controls Shanghai Kaiyu Information Technology Co., Ltd. 上海开域信息科技有限公司, a Chinese artificial intelligence (AI) and big data company more commonly referred to as Cue Group ("Cue") or Kaiyu.<sup>i</sup>

KKR owns Cue through its KKR Asian Fund III.

Cue and Cue's CEO Shi Kan are partners with the Chinese state security apparatus —Cue and Shi Kan's companies have been developing technology for government surveillance programs jointly with subsidiaries of China's Ministry of Public Security and implementing population surveillance through integrated facial recognition and heat sensor video technology.

1. KKR's Cue – Shanghai Kaiyu Information Technology Co, Ltd. 上海开域信息科技有限公司 - jointly developed surveillance technology with the Video National Engineering Laboratory (Zhuhai) Innovation Center ("Zhuhai Innovation Center"), an arm of China's First Research Institute of the Ministry of Public Security ("First Research Institute"). The First Research Institute was formed in 1978 by the Ministry of Public Security and "has developed a range of surveillance technologies ranging from video cameras to computer network and internet surveillance tools.... The successors to these entities are responsible for planning and implementing technical mass surveillance methods for China's public security apparatus today," according to a report called China's Smart Cities Development, commissioned by the U.S.-China Economic and Security Review Commission.<sup>ii</sup>
2. Cue jointly developed its "CUE Real-time AI Facial & Body Temperature Detector" – which integrates facial recognition, heat detection, and identity matching to identify individuals in crowds – with the Zhuhai Innovation Center and Zhuhai Zhongdun Star Technology, which is Cue CEO Shi Kan's personal company. Cue's technology is used for pandemic surveillance in places like train stations, bus stations, government agencies and businesses, and it has non-pandemic uses for recognizing "blacklisted persons" and surveillance of "mass gatherings".<sup>iii</sup>
3. Cue also sells a product called AI Smart City Solution. China's Smart Cities initiative is described in the report, China's Smart Cities Development: "Chinese government officials are embracing smart cities technologies—especially the Internet of Things (IoT), mobile internet, cloud computing, and big data—to expand, improve, and automate information collection and analysis for mass surveillance."<sup>iv</sup> The Ministry of Public Security plays a governing role in the implementation of China's Smart Cities technology.<sup>v</sup>

4. Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司 is a separate company owned personally by Cue CEO Shi Kan, Shi's father and an investor. Zhuhai Zhongdun Star Technology was a strategic partner with the Zhuhai Innovation Center in development of artificial intelligence and video technology for the Ministry of Public Security's Safe Campus program.<sup>vi</sup> Zhuhai Zhongdun Star Technology was also a joint developer of the CUE Real-time AI Facial & Body Temperature Detector.
5. Cue's subsidiary Huizhou Kaiyu Information Technology Co., Ltd is co-owned by Cue and Shi Kan's Zhuhai Zhongdun Star Technology, formalizing Cue's corporate relationship with Shi's personal surveillance technology company.
6. The state-owned National Engineering Laboratory for Intelligent Video Analysis and Application ("NELIVA") – run by the First Research Institute – has a national scope, and NELIVA founded the Zhuhai Innovation Center as a regional video technology, research and application center.
  - The Ministry of Public Security, the First Research Institute and NELIVA are at the center of the Chinese government's surveillance apparatus, including playing a role in the repression in Xinjiang which has drawn sanctions from the U.S. government. [See section on NELIVA for citations]
    - The state-owned First Research Institute is known as the "National Team of Cyber Security". It developed the "four major platforms' of Xinjiang public security informatization", or "Skynet", in collaboration with the Public Security Department of Xinjiang Uygur Autonomous Region, an entity on the U.S. Treasury Specially Designated Nationals and Blocked Persons List.
    - The Laboratory Director of NELIVA was previously Deputy Director of the Public Security Bureau of the Xinjiang Production and Construction Corps. The U.S. Department of Treasury sanctioned Xinjiang Production and Construction Corps in 2020 for serious human rights violations against Uyghur Muslims.
    - Executives of Hikvision and Huawei, two Chinese companies sanctioned by the U.S. government in 2019, serve as Directors of the ruling Council of NELIVA.<sup>vii</sup>
    - The First Research Institute also co-owns a subsidiary of China Electronics Information Industry Group 中国电子信息产业集团有限公司. The U.S. government deems China Electronics Information Industry Group a threat to U.S. national security, as identified in US Presidential Executive Order 14032 issued in June 2021.
  - Cue has four subsidiaries registered in the city of Horgos 霍尔果斯 located in the Xinjiang Uyghur Autonomous Region. We could not find information on what these Cue subsidiaries founded in Horgos do, or whether they or any other Cue entity is operating in Xinjiang. U.S. companies doing business in Xinjiang have been advised to assess "Supply Chain Exposure to Entities Engaged in Forced Labor and other Human Rights Abuses in Xinjiang."<sup>viii</sup>

Cue and its CEO's role jointly developing artificial intelligence and surveillance technology with the Chinese government's Zhuhai Innovation Center warrants further scrutiny by Cue's investors. At question is whether governmental entities like state and local pension funds in the U.S. should own and finance a Chinese company developing surveillance technology, and whether KKR is transparent with these investors about the full scope of Cue's operations.

## Cue Introduction

- Cue's corporate name is **Shanghai Kaiyu Information Technology Co., Ltd.** 上海开域信息科技有限公司
- Cue's Legal Representative and CEO is Shi Kan 施侃
- 3 KKR executives are on Cue's 5 person Board of Directors: Xu Kang 许康, Cai Song 蔡颂, Sun Zheng 孙铮, according to Chinese corporate records.<sup>ix</sup>
- KKR owns a majority of Cue, according to the most recent Chinese and Singapore corporate records<sup>x</sup>
- Cue owns 60% of Huizhou Kaiyu Information Technology Co., Ltd. 惠州市开域信息科技有限公司 with Shi Kan's personal company, Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司
- See **Appendix 1** for detailed corporate ownership.

Cue was formed in late 2017 by KKR and Shi Kan to acquire four Chinese technology advertising and data companies.<sup>xi</sup> The four companies are described in a KKR press release: "Cue's founding members include Qi-xin, a leading digital ad agency; AnG, a leading digital marketing agency; WIN, a leading brand management company; and Wina Tech, a leading SSP and commercial WiFi operator."<sup>xii</sup>

Xu Kang 许康, KKR's Director of Private Equity in Shanghai, played a significant role in the formation of Cue, and is on the Cue Board of Directors as of August 13, 2021, according to KKR's website.<sup>xiii</sup> According to Cue's corporate records as of August 24, 2021, there are three KKR executives on Cue's five-person Board of Directors: Sun Zheng 孙铮, or Chris Sun, KKR Managing Director of Private Equity in Beijing; Cai Song 蔡颂, or Cathy Cai, Head of KKR Capstone Asia Pacific; and Xu Kang 许康.<sup>xiv</sup>

Cue's Legal Representative, Director and CEO is Shi Kan 施侃, the founder of AnG, a company he sold to internet company Sinnet in 2015.<sup>xv</sup>

Cue's webpage summarizes its business this way:

"As a one-stop digital technology platform, Cue provides professional services and products, which include Smart Digital Marketing Solution, Smart Retail Solution, Smart Entertainment Solution, and AI Smart City Solution."<sup>xvi</sup>

A 2020 Xinhuanet story describes Cue's business as the following:

"Cue Group's CEO Shi Kan indicated that, Cue Group's business covers the area of digital marketing, however, in essence, the DNA of its business comes from big data and artificial intelligence technology. Cue Group is essentially a digital technology company. At present, AI business has already constituted an important part of the Group's continuous efforts."<sup>xvii</sup>

Cue and its CEO Shi Kan won numerous awards and honors in the last couple years, praising Cue's fast growth and its social responsibility for contributing to epidemic control. Shi Kan has a high profile, giving speeches in a number of public fora about Cue's AI and big data work.

In 2020, Cue formed a subsidiary called Huizhou Kaiyu Information Technology Co., Ltd. 惠州市开域信息科技有限公司<sup>xviii</sup> Cue owns 60% of Huizhou Kaiyu, and Shi Kan’s personal company Zhuhai Zhongdun Star Technology Co., Ltd. owns 21%. This Cue subsidiary formalizes Cue’s corporate relationship with Shi’s personal surveillance technology company.<sup>xix</sup>

Cue and Zhuhai Zhongdun Star Technology jointly developed surveillance technology with the Zhuhai Innovation Center, which is run by China’s First Research Institute of the Ministry of Public Security (“First Research Institute”).

### **Cue: Artificial Intelligence, Facial Recognition, & Surveillance**

Cue integrates facial recognition, thermal detection, emotional detection<sup>xx</sup> and identity data in its technology products.

Cue advertises the CUE Real-time AI Facial & Body Temperature Detector on its main Chinese and English webpages, stating that it is “Broadly deployed in various scenarios in China, boosting epidemic prevention.”<sup>xxi</sup>

**cue**  
开域集团

## CUE Real-time AI Facial & Body Temperature Detector

- Efficiently and accurately identify individuals with abnormal body temperature
- Broadly deployed in various scenarios in China, boosting epidemic prevention

Contact us: [contactus@cue.group](mailto:contactus@cue.group)

- Facial Recognition + Infrared Thermometer
- Face mask friendly
- Fast and contact-free temperature measurement
- Efficiently screen and spot individuals with abnormal body temperature
- Simultaneous check temperature up to 20 people to keep the crowd moving more quickly

- Protect passengers’ data privacy by not storing any individual’s private information, i.e. facial data
- Edge computing enables offline operation of the system
- All data encrypted for storage

- Easy to install in various locations, plug & play
- 7\*24 automatic running, no need to monitor manually

Infrared Thermometer Module + Facial Recognition Module

Monitor Module

Controller Module

Cue posts a brief video on its Chinese website which visualizes the application of crowd screening, facial recognition, identity matching through individual identity numbers, and 14-day migration history of passengers: <https://cue.group/index.html>



Caption translation:

Analysis of 14-day migration trajectory of passenger flow  
 Early warning for place of risk origin  
 Real-time surveillance of passenger flow, early warnings for high-density mass gathering

According to Cue, the AI technology for the CUE Real-time Facial & Body Temperature Detector was developed jointly by Cue, the Zhuhai Innovation Center (an arm of the First Research Institute), and Cue CEO Shi's personal company, Zhuhai Zhongdun Star Technology.<sup>xxii</sup>

The fact that the technology for this machine was jointly developed with an arm of the First Research Institute and enables matching facial images to identities raises a question of whether Cue's technology integrates with a national identity infrastructure or provides two-way flow of identity images and data with the state security apparatus.

As background, a report on China's surveillance apparatus references the integration of data from private businesses and national identity databases. According to the 2021 report entitled China's Surveillance State: A Global Project, the Ministry of Public Security proposed a national project to digitalize public security in 1998, called the Golden Shield Project (GSP). Its first phase included the establishment of eight national databases and "a three-level public security information network (ministry, provinces, cities)." The report continues:

"The main goals of the second phase are to introduce a Police Geographic Information System (PGIS), integrate businesses into the public security platform and increase standardisation of the public security system.... The first and second phase of the GSP have laid the foundation for today's safe cities and its rural equivalent the Sharp Eyes Project."<sup>xxiii</sup> [See Appendix 2]

Cue also advertises a product called AI Smart City Solution (AI 智慧城市解决方案) on its Chinese and English websites. Cue does not describe what AI Smart City Solution is, what it does or who utilizes it. China's Smart Cities (智慧城市) initiative is described in the report, China's Smart Cities Development: "Chinese government officials are embracing smart cities technologies—especially the Internet of Things (IoT), mobile internet, cloud computing, and big data—to expand, improve, and automate information collection and analysis for mass surveillance."<sup>xxiv</sup> The Ministry of Public Security plays a governing role in the implementation and integration of China's Smart Cities technology, and the First Research Institute develops video and facial recognition technology and standards for integration of Smart Cities data.<sup>xxv</sup>

Cue's Smart Retail webpage promotes its technology as "Facial recognition algorithms based on deep learning" including "Accurately and swiftly recognize and collect faces in videos", "Facial identification" and "Determinations of age, sex, emotions, etc."<sup>xxvi</sup>



### Cue's Epidemic Surveillance

Cue partnered with the government-run Zhuhai Innovation Center on epidemic control technology in 2020.

Cue CEO Shi Kan spoke to an audience about Cue's ability to expand its business rapidly in the early days of the epidemic, as Xinhuanet reported in October 2020:

"During the epidemic period, the exact time when Cue Group was able to rely on its technical strength and acted quickly. Based on existing capability of facial recognition software development, and the tracking capability of big data, Cue Group, when the epidemic was at its early stage in the nation, was able to quickly form a team during the Spring Festival, be the first to develop the epidemic prevention and control system and deployed it to many large venues in the country."<sup>xxvii</sup>

In an April 2, 2020 press release posted on Cue's website, Cue identifies the "CUE Epidemic Prevention, Control and Temperature Measurement Integrated Machine", also called the "Kaiyu all-in-one" machine, as developed jointly by Cue, Zhuhai Zhongdun Star Technology (Cue CEO Shi Kan's personal company), and the government-run Zhuhai Innovation Center:

"'CUE All-in-One Machine', which has two core capabilities of AI smart contact-free temperature measurement and 14-day migration trajectory tracking, was an epidemic prevention product jointly and urgently researched and developed by Cue Group, Zhuhai Zhongdun Star Technology Co., Ltd and Video National Engineering Laboratory (Zhuhai) Innovation Center. It supports simultaneous temperature measurement of up to 20 people, effectively and accurately screen and identify individuals with abnormal body temperature within area, locking in companions and surrounding individuals, and provide timely warning. At the same time, combine the

massive equipment information and behavior information on Cue's data management platform, detect people traveled from epidemic area, and send alarm in time, thus effectively achieve the preventive measures."<sup>xxviii</sup>

In the same posting, Cue describes the dual use of its Smart Retail technology for epidemic surveillance:

"The AI technology and visual analysis capabilities of the 'CUE All-in-One Machine' are mainly derived from the accumulated new capabilities of Cue's RetailX enterprise."<sup>xxix</sup>

Another Cue website posting dated August 4, 2020 describes the role of the CUE Real-time AI Facial & Body Temperature Detector while announcing an award it received:

"After more than two months and careful reviews by the award review committee, CUE Group, for the outstanding performance of its 'CUE Real-time AI Facial & Body Temperature Detector', was selected to be on the list of "The War on New Corona 'Epidemic'", under the category of "The Most Socially Responsible Enterprise in China's Data Intelligence Industry". Cue Group was awarded with order of merit and medal in recognition of its courage undertaking of social responsibility and the use of the strength of its own advanced technologies in database and AI to make huge contributions to the society. During the epidemic, 'CUE Real-time AI Facial & Body Temperature Detector' served government agencies, businesses, communities, schools, restaurants, shopping malls, train stations, bus stations and other places all over the world, provided safety protection for tens of millions of people during their daily activities. By using the infrared thermometer and facial recognition technologies, it can conduct contact-free and fast temperature measurement; it can accurately screen and spot individuals with abnormal body temperature, even when large area of the face is covered by face mask."<sup>xxx</sup>

A 2020 article from 36Kr media elaborates on the function of the machine:

"36Kr learned that Cue Group, Zhuhai Zhongdun Star Technology Co., Ltd. and Zhuhai Innovation Center, have completed the research and development of an all-in-one system that can handle the facial recognition, automatic body temperature measurement, people flow monitoring and big data linkage all at the same time – an AI Digital Solution for Epidemic Prevention and Control. It can execute real-time monitor of crowd flow in the epidemic area, effectively screen and identify individuals with abnormal body temperature, and provide timely warning. This program, which utilizes AI capabilities, including facial or body shape recognition, automatically monitors body temperature, and simultaneously checks temperatures up to 20 people, is suitable to be used at many places like government, hospitals, etc. APP can simultaneously send out early warnings remotely with monitoring data."<sup>xxxi</sup>

As an example, Shuxin, a town in Shanghai where Cue is based, was an early user of Cue's epidemic control machine in February 2020, according to a press release on Cue's website.<sup>xxxii</sup>

In that release, Cue notes that CUE All-in-One Machine has uses beyond epidemic control, including recognizing "blacklisted" persons (emphasis added):

"Ying Xiangxiang [head of Cue Group's RetailX Products] emphasized that, (she is) very happy to see that the epidemic situation gained some control in the country, but after the epidemic ends, 'CUE All-in-One Machine' will still have wide range of applications. For example, in terms of daily



passenger flow statistics, (it) can collect and analyze passenger flow, record visitors' information, send warnings about abnormal passenger flow, **prevent incidents involving mass gathering**. In terms of personnel management, relying on the capability of "facial recognition", (it) can construct personnel management database for the client, and accomplish the real-name management of their local workers, support the merge into the existing personnel management system and automatically expand the personnel information database; support the merge into the existing access control/clock-in system, door opening/clock-in through facial recognition, **support blacklist warning, when recognize specific blacklisted person(s), (it) will send out real-time warnings.**"<sup>xxxiii</sup>

### Shi's Zhuhai Safe Campus Project

- Cue CEO Shi Kan formed **Zhuhai Zhongdun Star Technology Co, Ltd. 珠海中盾之星科技有限公司** on October 12, 2019 to partner with Zhuhai Innovation Center<sup>xxxiv</sup>
- Zhuhai Zhongdun Star Technology is owned by Shi Kan, his father Shi Jingxi 施景曦 and a partner.<sup>xxxv</sup>
- Zhuhai Zhongdun Star Technology is 21% owner of Cue subsidiary **Huizhou Kaiyu Information Technology.**

Zhuhai Zhongdun Star Technology, the personal company of Cue CEO Shi Kan, partnered with the Zhuhai Innovation Center to develop the technology and applications to implement a Safe Campus system in the Zhuhai region.

Safe Campus is a national policy outlined in the Chinese government's State Council Policy #35 dated in 2017 to protect and surveil campuses, students and school communities. The Policy states:

"(12) Further enhance the cooperation mechanism with the police academies. Education sectors and public security offices at all levels and schools should improve their cooperation in the areas of information sharing, emergency handling and the like, thus enhance the linking mechanisms. Public security offices should further improve the way of setting up the functionally compatible organizations that are to keep campus safe and their cooperation in police force deployment, strengthen the construction of police offices on school site and its surrounding areas, send out experienced civilian police to strengthen work directives on school safety and protection. It must be done that the campus video surveillance systems, emergency alarm installations are linked to those at the public security offices and education departments and share the same platform with public security video surveillance network, step-by-step establish the campus safety online search system, thus be able to have timely control and quick handling of school security related problems."<sup>xxxvi</sup>

According to a 2019 Chinadaily.com article, Zhuhai Zhongdun Star Technology was a strategic partner of the Zhuhai Innovation Center:

"Zhuhai Zhongdun Star Technology Co., Ltd., as a strategic signatory of Video National Engineering Laboratory (Zhuhai) Innovation Center, had already officially participated in the 'Safe Campus' project in 2018, assisted in the implementation of research subjects at the Video National Laboratory, provided technical services and support, promoted the operation of the

subject project, carried out the application of scientific research results. As a representative of strategic partners, Mr. Shi Kan, the President of Zhuhai Zhongdun Star Technology Co., Ltd., attended the opening ceremony of the Zhuhai Innovation Center and participated in the special symposium.”<sup>xxxvii</sup>



A person who appears to be Shi Kan of Zhuhai Zhongdun Star Technology and CEO of Cue speaking at Video National Engineering Laboratory (Zhuhai) Innovation Center (“Zhuhai Innovation Center”).

[picture from:

<https://tech.chinadaily.com.cn/a/201910/28/WS5db690e7a31099ab995e8371.html> ]

The Chinadaily.com article goes on to describe some details of Zhuhai Zhongdun Star Technology’s Safe Campus collaboration. Safe Campus has the reported goal of "campus safety and social governance" including the ability to integrate the "security forces at all levels" (emphasis added):

“The Video National Engineering Laboratory (Zhuhai) Innovation Center teamed up with the Zhuhai Zhongdun Star Technology Co., Ltd., jointly developed the application system for the ‘Safe Campus’ project, and shaped the technology, products and specifications for the research on video information security and video big data application. Up till now, the "Safe Campus" project has been continuously carried out the research and development for more than a year, during that time, the three parties combined the needs for **campus safety and social governance**, integrated the data at various relevant departments, worked together to establish the key personnel information database and protection mechanism, from passive response to active prevention. And selected 6 primary schools, 4 secondary schools as the testing sites for the establishment of informatization project of the ‘Safe Campus’. The pilot project entered the collected information of key dangerous persons in Jinwan District into the security system,

established the database for data comparison, (that would) provide early warnings on key persons passing through the surrounding areas of the campus, intervened in advance to eliminate signs of hidden dangers. Up to now, there has not had any campus safety incident at these pilot schools, and good results have been achieved. The product will also have a full application release by the end of this year, and, in the future, it will be promoted and used in more than 2,000 districts and counties in the country.

“During the 2018 ‘Safe Campus’ strategic cooperation with signed agreement, Zhuhai Zhongdun Star Technology Co., Ltd., relying on the private networks that covered the entire country, through video processing technology, video image information intelligent analysis and sharing technology, mobile Internet technology, big data application technology, video big data technology, cloud architecture technology, **built the “Safe Campus Platform” that met the nationwide application. Through this platform, (it) was able to integrate the security forces at all levels, focus on serving the government, society, schools, parents, further put constraints and solve the hot, difficult and bottleneck issues found the social governance work.**”<sup>xxxviii</sup>

Further evidence of the First Research Institute’s role in the Zhuhai Safe Campus project is a contract awarded by the City of Zhuhai to Beijing Zhongdun Security Technology Development Co, which is wholly-owned by the First Research Institute.

On December 9, 2020, Beijing Zhongdun Security Technology Development Co, owned by the First Research Institute (see below), won a bid for a contract from the city of Zhuhai to provide surveillance equipment for Phase 2 of the Safe Campus project, according to the Jinwan District government website: “‘Safe Campus’

(Phase II) Monitoring Equipment Procurement Project in Jinwan District, Jinwan District Committee of the CPC Zhuhai City Service Scope: The procurement project of monitoring equipment for "Safe Campus" (Phase II) in Jinwan District, Jinwan District Committee of the CPC Zhuhai City.”<sup>xxxix</sup>

中共珠海市公安局金湾区委政法委员会金湾区“平安校园”（二期）监控设备采购项目成交结果公告

来源：本网 发布时间：2020-12-09 17:55:45 浏览次数：136

新浪微博 腾讯微博

- 一、项目编号：ZHZN2020-148
- 二、项目名称：中共珠海市公安局金湾区委政法委员会金湾区“平安校园”（二期）监控设备采购项目
- 三、中标（成交）信息
  - 供应商名称：北京中盾安全技术开发公司
  - 供应商地址：北京市海淀区首体南路1号
  - 成交金额：人民币陆拾柒万元整（¥670,000.00）
- 四、主要标的信息

服务类
名称：中共珠海市公安局金湾区委政法委员会金湾区“平安校园”（二期）监控设备采购项目 服务范围：中共珠海市公安局金湾区委政法委员会金湾区“平安校园”（二期）监控设备采购项目 一项 服务要求：根据采购文件“用户需求书”相关规定执行。 交货期：合同签订生效后起60个日历日内完成安装调试并通过验收交付采购人使用。 服务标准：根据采购文件“用户需求书”相关规定执行。

## **Video National Engineering Laboratory (Zhuhai) Innovation Center (“Zhuhai Innovation Center”)**

The following are private and government partners of the Zhuhai Innovation Center:

### **Private partners:**

- Cue jointly developed its CUE Real-time AI Facial & Body Temperature Detector with the government-run Zhuhai Innovation Center and Zhuhai Zhongdun Star Technology, Cue CEO Shi Kan’s personal company
- Shi Kan’s Zhuhai Zhongdun Star Technology partnered with the Zhuhai Innovation Center to develop the technology and applications to implement a Safe Campus system in the region.<sup>xi</sup>

### **Government partners:**

- National Engineering Laboratory for Intelligent Video Analysis and Application 视频图像信息智能分析与共享应用技术国家工程实验室 (“NEVILA”), run by First Research Institute of the Ministry of Public Security 公安部第一研究所 (“First Research Institute”)
- Beijing Zhongdun Security Technology Development Co 北京中盾安全技术开发公司 (“Beijing Zhongdun Company”), a wholly-owned subsidiary of the First Research Institute
- Political and Legal Committee of the Jinwan District Party Committee
- City of Zhuhai

The Video National Engineering Laboratory (Zhuhai) Innovation Center (“Zhuhai Innovation Center”) was unveiled in 2019 as a joint operation of the Jinwan District Government of Zhuhai and the National Engineering Laboratory for Intelligent Video Analysis and Application (“NEVILA”), an arm of China’s First Research Institute of the Ministry of Public Security (“First Research Institute”). According to the Zhuhai Innovation Center’s About Us page on its website:

“To answer the call from the government to ‘Shift focus downwards to serve the ordinary people; ensure leaning downwards to serve common workers’, on July 1, 2019, the Video National Engineering Laboratory and Zhuhai Jinwan Government jointly formed the Video National Engineering Laboratory (Zhuhai) Innovation Center.”<sup>xii</sup>

The Zhuhai Innovation Center was established to work on Smart Communities, Safe Campus and other state public security initiatives by integrating video technologies and the application of big data, including AI, facial recognition, identity technology and systems integration.<sup>xiii</sup>

An April 2020 press release by the Zhuhai Innovation Center describes its work to develop technology in the early days of the pandemic to assist police in their surveillance of residents:

“After the outbreak of the epidemic, Chen Bin, deputy secretary of the party branch and deputy leader of the public security branch, quickly established the Office of Safety Management and Control for the city’s new Coronavirus Pneumonia Prevention and Control Headquarters to guide the grassroots police to complete community prevention and control tasks. ...

“How to solve the problem of heavy burdens and low efficiency?”

“Chen Bin immediately united with multiple departments to form a scientific research team aiming at tackling key problems. Starting from the first day of the new year, he worked day and night and, in just three days, developed this "Community Persons Quarantine and Inspection APP" and its backend system. ...

“Public security police take the lead in overall planning, to ensure that the work will not be interfered; health workers are responsible for looking into the medical history, collecting the test samples, detecting fingerprints, analyzing the results and providing the feedbacks, etc.; village cadres or community police will find out the targets’ residential information, clearly inform them of their responsibilities, and distribute the leaflets.

“The "Three-Person Team” has clear goals, clear division of the work, and cooperation among them, so that the epidemic prevention work can be carried out in an efficient and orderly manner. ...

"Whatever data each department needs have already been added and formatted in the backend APP. This will help us complete the standardized collection and data entry of all the information at one time." Police explained, if (we) visit them too often, it will make the residents lose patience, and might make them feel nervous, worrying whether the highly frequent visits are caused by the fact that someone around them is infected...

“At the same time, epidemic data can be shared with government departments, districts, and towns (streets), allowing all participating departments to obtain the first-hand authentic, systematic, and comprehensive investigation results simultaneously, avoiding repeated data collection, that not only saves time, but also frees up manpower, thus truly achieves precision and high efficiency.”<sup>xliii</sup>



Working in teams of three



Police registration of household information

Image: Video National Engineering Laboratory (Zhuhai) Innovation Center<sup>xliv</sup>

As of August 19, 2021, Zhuhai Innovation Center website describes its research directions beyond pandemic response this way (emphasis added):

“The direction of the research at the Zhuhai Innovation Center includes: combine the laboratory’s video intelligence analytics and share the comprehensive application platform on security, conduct research on the safety, stable transmission and application of the installation of moving video surveillance system in the sky, on the ground and under the water; use places such as the key government agencies, large-scale event venues, schools and hospitals as the starting locations, and use personal identification verification equipment, facial recognition equipment, visitor equipment and security equipment as the basic settings, conduct research on the multi-dimensional AI video data collections and analytics, and related equipment, system and platform for people and traffic flow controls. Since its establishment, the Innovation Center (including its predecessor Video National Engineering Laboratory Zhuhai Technology Department) has been, one after another, working respectively with many industries to carry out joint research on many subjects, **including comprehensive management of public security, three-dimensional prevention and control for large-scale activities, intelligent communities, safe campus, intelligence safety, AI detection, emergency mass defense and mass control.**<sup>xlv</sup>

The Zhuhai Innovation Center website also describes the function of its Entrance and Exit Safety Management Technology as a “warning of blacklisted personnel”, as of September 2, 2021.

## Video National Engineering Laboratory (Zhuhai) Innovation Center: Entrance and Exit Safety Management Technology [Google Translate, 9/2/2021]<sup>xlvi</sup>

Early-warning data: real-time display of successfully matched personnel, and systemic warning of blacklisted personnel at the same time





## Features

**Comprehensive data management:** unified management of the overall profile management of the entrance and exit management sites, the entry and exit data, the staff attendance data of the unit, the visitor data, the visitor warning data, the video surveillance data, the portrait capture data, etc.

**Visitor management:** It provides information registration, query, verification, background verification and other functions for visitors, and combines with entrance and exit portrait capture to achieve effective management of the visit cycle.

**Video surveillance:** Real-time monitoring of key parts of information such as personnel, vehicles, and risk points outside the unit and surrounding areas through video surveillance.

**Portrait capture:** Automatically capture and intelligently retrieve the portrait of the video screen through the portrait capture technology and the portrait capture camera.

**Personal identification verification:** through the technical means of conforming to the standard certification integration, the portrait of the holder is matched with the ID photo to verify whether the two are the same person.

**Background verification:** Through personnel information implementation, personnel background verification and comparison are carried out, and five-color warning information of personnel is obtained.

**Safety warning:** unified management of personnel warning, hidden danger warning, equipment warning and other information triggered by the entrance and exit management system.

**Architectural 3D visualization:** Establish a high-simulation 3D image model for the unit, which can intuitively grasp the complete 3D space layout inside the unit and respond quickly when related events occur.

The Zhuhai Innovation Center has jurisdiction in the Guangdong-Hong Kong-Macao Greater Bay Area, and its scope describes applying research to “...create a three-dimensional social prevention and control ‘Jinwan Model’”, according to this March 17, 2020 press release on the Center’s website [emphasis added]:

“In the future, the Center will promote the application of results from the scientific and technological research at the Laboratory to the tasks of local social management, also explore and innovate on an information security and controllable sharing basis, build a three-dimensional **“Jinwan Model” for social prevention and control, establish a model for social governance in the Guangdong-Hong Kong-Macao Greater Bay Area.** Furthermore, extend this



throughout the country, bring the video big data industry of the First Research Institute of the Ministry of Public Security and Video National Engineering Laboratory to Beijing-Tianjin-Hebei and Yangtze Delta (areas) for their overall planning.”<sup>xlvii</sup>

Again, within the Zhuhai Innovation Center’s reported jurisdiction is the Hong Kong region. We could not find information on whether the Zhuhai Innovation Center has played a role in government surveillance in Hong Kong.

This question is important because during the same year that the government-run NELIVA founded the Zhuhai Innovation Center, the China-backed Hong Kong government proposed significant changes in its governing laws, which later sparked mass protests in 2019 and 2020. Then in June 2020, the People’s Republic of China imposed a National Security Law [NSL] on Hong Kong, significantly reducing Hong Kong’s autonomy and undermining protected rights and freedoms, in the words of the U.S. government.<sup>xlviii</sup>

An American government advisory warns U.S. businesses of increased risks, including risk of electronic surveillance, following the new law:

“As a result of these changes, they should be aware of potential reputational, regulatory, financial, and, in certain instances, legal risks associated with their Hong Kong operations. These risks fall into four categories: risks for businesses following the imposition of the NSL; data privacy risks; risks regarding transparency and access to critical business information; and risks for businesses with exposure to sanctioned Hong Kong or PRC entities or individuals....

“The NSL empowers Hong Kong law enforcement to conduct searches, including of electronic devices, for evidence in national security cases, and the NSL permits Hong Kong law enforcement to require Internet service providers to provide or delete data and other information relevant to national security cases, both without judicial oversight. Furthermore, businesses and individuals should be aware that the NSL authorizes the Office for Safeguarding National Security, which is staffed by PRC security services, to collect data in Hong Kong.”<sup>xlix</sup>

Additionally, following the imposition of the new security law, there have been arrests of democracy leaders, closing of independent media outlets, and dissolution of outspoken organizations, according to media reports.<sup>1</sup>

## National Engineering Laboratory for Intelligent Video Analysis and Application, Ministry of Public Security & US Banned Companies

- National Engineering Laboratory for Intelligent Video Analysis and Application (“NELIVA”): formed the Zhuhai Innovation Center
- First Research Institute of the Ministry of Public Security (“First Research Institute”): leads NELIVA
- Beijing Zhongdun Security Technology Development Company (“Beijing Zhongdun Company”), a wholly owned subsidiary of the First Research Institute: operates NELIVA

Because of their role in the Zhuhai Innovation Center, it is worth understanding the association of NELIVA, the First Research Institute, and Beijing Zhongdun Company with entities that are listed in the recent US Executive Order and other federal lists denoting Chinese companies that are deemed a threat to U.S. security.

NELIVA formed the Zhuhai Innovation Center with the Zhuhai government.<sup>li</sup>

NELIVA is run by the Director of the First Research Institute<sup>lii</sup> and operated by Beijing Zhongdun Company, a wholly owned subsidiary of the First Research Institute.<sup>liii</sup>

- The Laboratory Director of NELIVA is Qiu Baoli, the Director of the First Research Institute and Deputy Secretary of the Party Committee of the Ministry of Public Security. Qiu was previously Deputy Director of the Public Security Bureau of the Xinjiang Construction Corps.<sup>liv</sup> The Xinjiang Production and Construction Corps was sanctioned by the U.S. Department of Treasury in 2020 for serious human rights violations.<sup>lv</sup>
- NELIVA partners with companies such as Hikvision and Huawei that are on the Non-SDN Chinese Military Industrial Complex Companies List defined by U.S. Presidential Executive Order 14032 dated June 3, 2021 denoting companies that are a threat to U.S. national security.<sup>lvi</sup> Executives of Hikvision and Huawei serve as Directors of the NELIVA’s ruling Council.<sup>lvii</sup> The following companies are described as partners of NELIVA on its website as of August 31, 2021:



“The co-construction units of the laboratory are the First Research Institute of the Ministry of Public Security, the Institute of Automation of the Chinese Academy of Sciences, Hangzhou Hikvision Digital Technology Co., Ltd., Huawei Technologies Co., Ltd., Beijing Zhongxing Microelectronics Co., Ltd., Sun Yat-sen University, and intelligent video image analysis and application Key Laboratory of the Ministry of Technology and Public Security. The First Research Institute of the Ministry of Public Security is a leader in video technology. The Automation of the Chinese Academy of Sciences is at the international leading level in the field of image and biometrics. Vimicro is at the leading level in the design of "China Chip" chips. Hikvision is a leading company in the surveillance industry. Huawei

has a leading position in the communications field and has strong independent innovation capabilities. Sun Yat-sen University has a leading technology in intelligent transportation research. The Key Laboratory of the Ministry of Public Security of Video is a practical application base for public security.”<sup>lviii</sup>

- First Research Institute owns a subsidiary of an entity identified as a threat to U.S. national security by U.S. Executive Order 14032 for a role in the Chinese military industrial complex:
  - First Research Institute owns 37.21% of China Power Smart Card 中电智能卡有限责任公司, which is 58.14% owned by China Electronics Information Industry Group 中国电子信息产业集团有限公司.<sup>lix</sup> China Electronics Information Industry Group is owned by the Chinese government’s State Council 国务院.<sup>lx</sup> China Electronics Information Industry Group is identified as a company that supports the Chinese military and is subject to investment prohibition based on US Executive Order 14032 dated June 3, 2021, entitled “Addressing the Threat From Securities Investments That Finance Certain Companies of the People’s Republic of China”.<sup>lxi</sup>
  - In turn, China Electronics Information Industry Group owns 100% of China Electronics Import and Export Corporation, 中国电子进出口有限公司, which is on the US Treasury Specially Designated Nationals (SDN) List, USA Consolidated Screening List, barring US transactions.<sup>lxii</sup>
- “The First Research Institute of the Ministry of Public Security has been known as the ‘National Team of Cyber Security,’” according to a Beijing News story posted on the official Cyberspace Administration of China’s website on June 1, 2015.<sup>lxiii</sup>
- On July 3, 2019, regional news outlet Greater Bay Insight describes the First Research Institute: “According to the introduction, the First Research Institute of the Ministry of Public Security is a comprehensive research institute, which is a subordinate unit directly under the Ministry of Public Security. It is the largest scientific research and production base for police equipment in China. It mainly provides products, engineering and technical services to public security businesses and social public security departments.”<sup>lxiv</sup>
- First Research Institute is the organ that designs and implements Skynet in Xinjiang, Smart Cities and Safe Campus projects.
  - The First Research Institute announced Skynet in Xinjiang in a January 21, 2015 article posted on the Cyberspace Administration of China’s website with the headline: “First Research Institute of the Ministry of Public Security Set Up Four Platforms; Build Anti-Terrorism Anti-Violence ‘SkyNet’”, stating:

“The timely handling of the Shule incident indeed was benefited from the “Four Major Platforms” of the Xinjiang Public Security’s Informatization, which the First Research Institute of the Ministry of Public Security and Public Security Department of Xinjiang Uygur Autonomous Region built over a period of three years – Video Information Integration Application Platform, Police Geographic Information Application Platform, National Security information Application Platform and Internet Service Platform..”<sup>lxv</sup>

- The Public Security Department of Xinjiang Uygur Autonomous Region is on the U.S. Department of Treasury’s Specially Designated Nationals And Blocked Persons List (SDN).<sup>lxvi</sup>

6/2/2021

The First Research Institute of the Ministry of Public Security builds four platforms to build the "Skynet" of anti-terrorism and anti-violence...



- "Xinjiang Science and Technology Strong Police and Public Security Information Construction" project of First Research Institute<sup>lxvii</sup>
- The First Research Institute helped construct Wuxi’s smart city network, according to a September 21, 2020 news story, including designing the cyber identification platform: “With "Cyber +" Trusted Identities Verification Platform being the supporting guidance from the Cyberspace Administration of China and the Ministry of Science and Technology, organized and implemented by the Ministry of Public Security, and undertook and built by the First Research Institute of the Ministry of Public Security...”<sup>lxviii</sup>

- Beijing Zhongdun Company, also commonly known as China Shield, was founded in 1992 and is wholly owned by the First Research Institute. Its current Chairman is 冯曰铭 Feng Yeuming, deputy director of the First Research Institute.<sup>lxix</sup>

- Beijing Zhongdun Company’s webpage (translated) viewed July 6, 2021, describes its operations as of July 6, 2021:

“Beijing Zhongdun Security Technology Development Co. (hereinafter referred to as Zhongdun Company) was established in 1992 as a national ownership type of high-tech enterprise that was fully funded by the First Research Institute of the Ministry of Public Security, with a registered capital of 180 million yuan. It mainly engages in group management, development of police technology, special-purpose foreign trades, development of special security equipment, development and sales of commercial encryption products, project design and implementation of comprehensive security protection and system integration and other works.

“Zhongdun Company, relying on the First Research Institute of the Ministry of Public Security’s advantages in scientific research, followed the ISO9001 quality management system standard to manage the enterprise, developed (its) core competitiveness, and had, one after another, undertaken multiple national Science and Technology Support Plan projects under “Eleventh Five-Year Plan” and “Twelfth Five-Year Plan”, and established many national-level subject matter

research centers. During that period, Zhongdun Company, as a company that is responsible for setting the national standard, took the lead in formulating many national and industry standards, and obtained many patents and software copyrights, shaped the accumulation of key technologies and reached the leading level in the country.

“Zhongdun Company is one of the earliest companies that engaged in the security business in our country. It has long been committed to the business of serving public security, serving public security frontline, serving social public safety. It operates with integrity and has a good reputation, has been rated many times as an AAA Honest and Outstanding Enterprise in Beijing security industry, as well as a key high-tech enterprise for China Torch Program. Zhongdun Company is the standing director unit of the China Security & Protection Industry Association (CSPIA), the vice chairman unit of Beijing Security and Protection Industry Association (BSPIA), an outstanding engineering company of China’s Smart Cities Pilot Project 3111, and the vice chairman unit of SVAC (Surveillance Video and Audio Codec) Technology Industry Alliance.

“The leading products of Zhongdun Company were rated as "Outstanding Product Recommended for Smart Cities Construction". Among them, the self-developed "Comprehensive Research and Judgement Integration Platform ZD8300V1 for Urban Surveillance and Alarm Network System" and "X-ray Inspection Equipment for Human Internal and External Contents (Toxin) CMEX-70200" won the Special Award for Innovative Products at the China International Exhibition on Public Safety and Security; "High-Definition Network Camera ZD5740HS" and "Intelligent Video Integrated Application System ZD8400" won the Excellence Award for Innovative Products at the China International Exhibition on Public Safety and Security; "Electronic Passport Reader and Writer Equipment" won the Special Award for Innovative Products at the China International Exhibition on Public Safety and Security; "Handheld Second-Generation Resident Identity (ID) Card Reader and Writer Device" won the Outstanding Security Product for Smart Cities Construction.”<sup>lxx</sup>

- Beijing Zhongdun Company has had numerous contracts to provide surveillance equipment in sensitive areas of China. “At the end of 2014, Beijing Zhongdun Company undertook and successfully delivered the materials for the foreign trade exporting services' China Aids to Nepal Engineering Project. At the same time, coordinated with the (First) Research Institute and successfully completed the phase tasks for the Xinjiang Video Integrated Platform System Project.”<sup>lxxi</sup>
- A partial list of Beijing Zhongdun Company government contracts is here: <https://t.wangan.com/c/c08941d7e21ee43a2/t>
- A sample of contracts Beijing Zhongdun Company won in Xinjiang include:<sup>lxxii</sup>
  - “Urumqi City Public Security Bureau classified rapid security inspection information management system construction project”, 4/3/2019<sup>lxxiii</sup>
    - Urumqi Public Security Bureau is on the U.S. Export Administration Regulations Part 744 list restricting trade<sup>lxxiv</sup>
  - “Digital Security Server Procurement Project of Xinjiang Entry-Exit Border Inspection General Station”, 9/8/2020<sup>lxxv</sup>
- A sample of contracts Beijing Zhongdun won in Inner Mongolia includes:<sup>lxxvi</sup>
  - “Xilinguole League Public Security Bureau 24-Channel DNA Sequencers Public Tender Winning Bid Results Public Announcement” 6/6/2019<sup>lxxvii</sup>

- “Xilinguole League Public Security Bureau DNA Database Consumables Winning Bid (transaction) Public Announcement” 11/14/2016<sup>lxxviii</sup>
- “Ordos City Public Security Bureau Personal Identification Verification Machine Winning Bid (transaction) Public Announcement”, 3/9/2017<sup>lxxix</sup>
- “Inner Mongolia Entry-Exit Border Protection Authority Frontier Inspection Station Electronic Document Security Server Procurement Project Winning Bid”, 8/21/2020<sup>lxxx</sup>
- Single Source Electronic Passport for Inner Mongolia Autonomous Region Public Security Department, 12/19/2019
  - “The equipment will write the security key while producing passport for the National Immigration Administration, Exit-Entry Permit for Travelling to and from Hong Kong, Macau and Taiwan and its endorsements, Mainland Travel Permit for Taiwan Residents and other certificates, and it also supports the ID inspection at our country's entry-exit border protection ports. It is the special purpose equipment for the National Immigration Administration and is designated to be produced by Beijing Zhongdun Security Technology Development Co., therefore, needs to apply for the sole source procurement method for the purchase.”<sup>lxxxi</sup>

### **Cue’s Horgos Companies**

A number of Cue subsidiaries were formed in the city of Horgos 霍尔果斯, which is located in the Xinjiang Uyghur Autonomous Region on the border with Kazakhstan:

- 霍尔果斯齐欣互动科技有限公司, Horgos Qixin Interactive Technology Co., Ltd.
- 霍尔果斯奇奕互动科技有限公司, Horgos Qiyihudong Technology Co.,Ltd.
- 霍尔果斯安与吉信息技术有限公司, Horgos AnG Information Technology Co.,Ltd
- 霍尔果斯九木互动科技有限公司, Horgos Jiumu Interactive Technology Co., Ltd

We could not find information on what Cue’s subsidiaries founded in Horgos do, or whether they or any other Cue entity is operating in Xinjiang.

That said, the U.S. government urges companies doing business in Xinjiang to assess their supply chains for products made with forced labor or other human rights violations. For example, the U.S. Department of Treasury has sanctioned the state-run Xinjiang Production and Construction Corps which operates the region for the Chinese Communist Party for:

“...serious human rights abuse against ethnic minorities in Xinjiang, which reportedly include mass arbitrary detention and severe physical abuse, among other serious abuses targeting Uyghurs, a Turkic Muslim population indigenous to Xinjiang, and other ethnic minorities in the region.”<sup>lxxxii</sup>

“The XPCC is a paramilitary organization in the XUAR that is subordinate to the Chinese Communist Party (CCP) and was designated on July 31, 2020 for its connection to serious human rights abuse,” according to the US Department of Treasury’s March 22, 2021 statement.<sup>lxxxiii</sup>



DEPARTMENT  
OF  
STATE



DEPARTMENT  
OF  
THE TREASURY



DEPARTMENT  
OF  
COMMERCE



DEPARTMENT  
OF  
HOMELAND SECURITY

**Xinjiang Supply Chain Business Advisory**

Issued: July 1, 2020

Title: Risks and Considerations for Businesses with Supply Chain Exposure to Entities Engaged in Forced Labor and other Human Rights Abuses in Xinjiang<sup>1</sup>

The U.S. Department of Commerce has also banned import of certain products from Xinjiang because of reports of human rights violations including forced labor, and it warned U.S. companies to investigate their “Risks and Considerations for Businesses with Supply Chain Exposure to Entities Engaged in Forced Labor and other Human Rights Abuses in Xinjiang”<sup>lxxxiv</sup>.

KKR should disclose what Cue’s subsidiaries founded in Xinjiang do, given that Cue and Shi’s Zhuhai Zhongdun jointly developed surveillance technology with the Zhuhai Innovation Center, which was founded by NELIVA, which in turn is controlled by First Research Institute. Recall that the First Research Institute developed Skynet’s “four major platforms’ of Xinjiang public security informatization” in collaboration with the Public Security Department of Xinjiang Uygur Autonomous Region, an entity on the U.S. Treasury Specially Designated Nationals and Blocked Persons List.

## Appendix 1: Corporate Details of Primary Cue and Shi Kan Companies

### Cue Parent Company

The Chinese parent company of Cue-related companies is 上海开域信息科技有限公司  
**Shanghai Kaiyu Information Technology Co., Ltd.**

Shanghai Kaiyu Information Technology Co., Ltd. is owned by **SINO AD INVESTMENT PTE. LTD.** (48.89%) and its Chinese-registered subsidiary **Kaiyu International Holdings** (51.11%).<sup>lxxxv</sup> SINO AD INVESTMENT PTE. LTD owns 90% of Kaiyu International Holdings, and a Cue subsidiary owns the remaining 10%.<sup>lxxxvi</sup>

**SINO AD INVESTMENT PTE.LTD.** is a Singapore company wholly owned by CUE HOLDINGS LTD, a Cayman Islands company, as of June 2021. Singapore’s registration number for SINO AD is 201725890W, and its ID number for CUE HOLDINGS is T18UF0868E.

**CUE HOLDINGS LTD**, Cayman Islands is wholly owned by Sino Ad Investment Holdings Limited, a Cayman Islands exempted limited company, as of September 16, 2019, the latest information filed.<sup>lxxxvii</sup>

Cayman Islands **Sino Ad Investment Holdings Limited** is wholly owned by SINO AD ULTIMATE HOLDINGS PTE LTD, a Singapore company, according to financial statements filed in Singapore in 2019, the latest available.<sup>lxxxviii</sup>

**SINO AD ULTIMATE HOLDINGS PTE LTD** is wholly owned by KKR entities, with KKR Asia III Fund Investments Pte Ltd owning 83%, as of August 18, 2021.<sup>lxxxix</sup>

A 2019 press release by Kaiyu includes as investors KKR, Anchor and PVC. KKR is described as “founding investor” in an online news source.<sup>xc</sup> “Kaiyu Group announced the company's new round of financing. This round of financing was led by Anchor, a well-known investment institution, followed by KKR and PVG.”<sup>xcii</sup>

### Cue Chinese Parent Company

- 1) Shanghai Kaiyu Information Technology Co., Ltd. 上海开域信息科技有限公司  
Unified social credit code: 91310230MA1K019L9R
  - a) Kaiyu International Holdings - 51.11% 开域国际控股有限公司  
Unified Social Credit Code: 91440300MA5G2B3Y9L
    - i) SINO AD INVESTMENT PTE. LTD - 90% (Singapore)
    - ii) Shanghai Jukan Information Technology Co., Ltd.<sup>xciii</sup> 上海聚侃信息科技有限公司- 10%
      - (1) Shanghai Kaiyu Information Technology Co., Ltd – 100%
  - b) SINO AD INVESTMENT PTE. LTD - 48.89% (Singapore)
    - i) CUE HOLDINGS LTD (Cayman Islands)



### **Cue Subsidiary with Zhuhai Zhongdun**

- 2) Huizhou Kaiyu Information Technology Co Ltd 惠州市开域信息科技有限公司 (Cue subsidiary)  
Unified Social Credit Code: 91441302MA556MKU67
  - a) Shanghai Kaiyu Information Technology Co., Ltd. – 60%
  - b) Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司 - 21%
    - i) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司 – 99%
      - (1) Shi Kan 施侃 – 55%
      - (2) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
        - (a) Yuan Hengmei 袁亨美 50%
        - (b) Shi Jingxi 施景曦 50% - Shi Kan's father<sup>xciii</sup>
    - ii) Du Yilin 杜宜霖 – 1%
  - c) Zeng Yinqiang 曾茵强 - 19%

### **Shi Kan Personal Companies**

- 3) Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司  
Unified Social Credit Code: 91440400MA53W8KU8G
  - a) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司 – 99%
    - i) Shi Kan 施侃 – 55%
    - ii) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
      - (1) Yuan Hengmei 袁亨美 50%
      - (2) Shi Jingxi 施景曦 50% - Shi Kan's father
  - b) Du Yilin 杜宜霖 – 1%
- 4) CUE Hong Kong Holdings Limited
  - a) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司
    - i) Shi Kan 施侃 – 55%
    - ii) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
      - (1) Yuan Hengmei 袁亨美 50%
      - (2) Shi Jingxi 施景曦 50% - Shi Kan's father

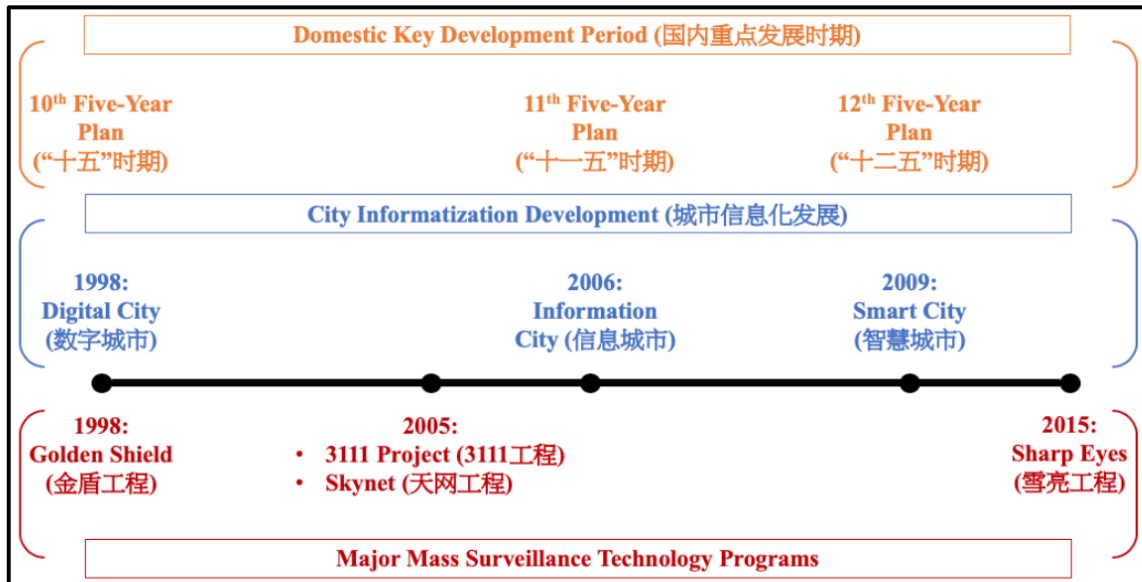
Note: Registered address for Shi's personal company Shanghai Shuchuan Data Technology is a few rooms away from Shanghai Kaiyu's corporate address:

上海市崇明区竖新镇响椿路 116 号 3 幢 310 室 Shanghai Shuchuan Data Technology

上海市崇明区竖新镇响椿路 116 号 3 幢 328 室 Shanghai Kaiyu Information Technology

**Appendix 2: China’s Surveillance Apparatus Diagram<sup>xciv</sup>**

**Figure 4: Chinese City Informatization and Mass Surveillance Technology Programs**



Source: General Office of the Central Committee of the Chinese Communist Party and General Office of the State Council of the People’s Republic of China.<sup>157</sup>

**Appendix 3: Facial Recognition Technical Standards formulated by companies deemed a threat to US national security**

Cue’s business includes development and use of facial recognition technology, which must meet certain technical standards. Technical requirements for the design and use of face capture equipment technology were implemented in 2020 by the China Security & Protection Industry Association (“CSPIA”), a business and social organization that establishes guidance for standardization in the industry, among other functions.<sup>xcv</sup> According to the CSPIA announcement, the requirements were drafted by the government Security and Police Electronic Product Quality Inspection Center of the Ministry of Public Security, its state-owned subsidiary Beijing Zhongdun Security Technology Development Co. Ltd., and leading Chinese technology companies including some that have been identified by the U.S. government as a threat to US national security: Hangzhou Hikvision Digital Technology Co. Ltd., Huawei Technologies Co. Ltd., Zhejiang Dahua Technology Co. Ltd, Suzhou Keda Technology Co. Ltd., and Beijing Geling Shentong Information Technology Co. Ltd.<sup>xcvi</sup>

Zhejiang Dahua Technology Co. Ltd’s facial recognition software is reported to be capable of identifying members of the Uyghur ethnic group, and it is on the U.S. Export Administration Regulations Part 744 Entity List, which restricts trade, for ties to human rights violations in Xinjiang.<sup>xcvii</sup> Keda and Geling Shentong (aka DeepGlint) were added to the Entity list on July 12, 2021 for their Xinjiang roles:

“Specifically, these entities have been implicated in human rights violations and abuses in the implementation of China’s campaign of repression, mass detention, and high-technology

surveillance against Uyghurs, Kazakhs, and other members of Muslim minority groups in the Xinjiang Uyghur Autonomous Region (XUAR).”<sup>xcviii</sup>

#### **Appendix 4: Cue’s business partners include companies deemed a threat to U.S. security**

On Cue’s website as of August 31, 2021, the company identifies “Our Partners”,<sup>xcix</sup> including a number of companies that are identified by the U.S. government as a threat to U.S. national security:

- **ZTE**, a video surveillance and equipment company which is identified by the FCC on 3/12/2021 as a threat to U.S. national security.<sup>c</sup>
- **China Mobile, China Telecom and China Unicom**, all of which are on the Non-SDN Chinese Military Industrial Complex List and identified by Executive Order 14032 as a threat to U.S. national security.<sup>ci</sup>

Among Cue’s key partner list under App Distribution is **Huawei**, which is also on the Non-SDN Chinese Military Industrial Complex List.<sup>cii</sup>

## Endnotes

<sup>i</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021; Singapore records for Sino Ad Investment Pte. Ltd. and Sino Ad Ultimate Holdings Pte. Ltd. accessed 6/8/2021 and 8/18/2021.

<https://jp.reuters.com/article/instant-article/idUSKCN22B0FJ> dated 4/29/2020

<sup>ii</sup> [China's Smart Cities Development](#), Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, p.45. [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) "In 1978, the Ministry of Public Security (MPS) established the 1st, 2nd, and 3rd Research Institutes, each of which has developed a range of surveillance technologies ranging from video cameras to computer network and internet surveillance tools.... The successors to these entities are responsible for planning and implementing technical mass surveillance methods for China's public security apparatus today."

<sup>iii</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/2021

<sup>iv</sup> [China's Smart Cities Development](#), Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) p.2.

<sup>v</sup> [China's Smart Cities Development](#), Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) p.49. "The MPS [Ministry of Public Security] has issued a range of guiding documents and technical standards intended to govern implementation of smart city information technology."

<sup>vi</sup> <http://www.xxwcmw.com/html/news/20191028/4840345126336209838.shtml> The National-level Laboratory of the Ministry of Public Security Promotes the Campus Safety, Heading towards the "Science Defense" Era, dated 10/28/2019

<sup>vii</sup> first sanctioned in 2019: <https://www.reuters.com/article/us-usa-trade-china-exclusive-idUSKBN1WM25M> , dated 10/7/2019

<sup>viii</sup> [https://www.state.gov/wp-content/uploads/2020/07/Xinjiang-Supply-Chain-Business-Advisory\\_FINAL\\_For-508-508.pdf](https://www.state.gov/wp-content/uploads/2020/07/Xinjiang-Supply-Chain-Business-Advisory_FINAL_For-508-508.pdf), dated 7/1/2020

<sup>ix</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021

<sup>x</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021, shows Kaiyu International and SINO AD INVESTMENT own all shares, and Kaiyu International is 90% owned by SINO AD INVESTMENT and 10% owned by a subsidiary of Shanghai Kaiyu. Singapore records for 2021 show ultimate ownership of SINO AD INVESTMENT is KKR.

<sup>xi</sup> Shanghai Kaiyu corporate record, Zhaodao88, accessed 6/8/21, shows first legal representative is Xu Kang and its original Directors were Shi Kan and two KKR executives: Sun Zheng, or Chris Sun, KKR Managing Director of Private Equity in Beijing, and Cai Song, or Cathy Cai, Head of KKR Capstone Asia Pacific. Shanghai Yingkan Enterprise Management Consulting Partnership (Limited Partnership) corporate record Zhaodao88, accessed 3/29/2021 – intermediary acquisition company. Cathy Cai and Cai Song reference:

<https://www.xuehua.us/a/5eb61a2986ec4d1abb675a79?lang=zh-cn> "本周五 (5月18日), KKR大中华区首席运营官蔡颂将亲临2018美元母基金论坛·解密KKR的投资秘籍和投后管理·欢迎扫码观看直播!"

<sup>xii</sup> <https://www.marketscreener.com/quote/stock/KKR-CO-INC-44486777/news/KKR-nbsp-Cue-Completes-Series-A-Round-of-Financing-29058928/>

<sup>xiii</sup> <https://www.kkr.com/our-firm/leadership/kang-xu> , accessed 8/13/2021

<sup>xiv</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021; <https://jp.reuters.com/article/instant-article/idUSKCN22B0FJ> KKR "has three representatives on Cue's five-member board." Cathy Cai and Cai Song reference, accessed 9/1/2021:

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<https://www.xuehua.us/a/5eb61a2986ec4d1abb675a79?lang=zh-cn> “本周五（5月18日），KKR大中华区首席运营官蔡颂将亲临2018美元母基金论坛·解密KKR的投资秘籍和投后管理·欢迎扫码观看直播！”

<sup>xv</sup> [http://quotes.money.163.com/f10/ggmx\\_300383\\_2018017.html](http://quotes.money.163.com/f10/ggmx_300383_2018017.html) Sinnet Registration statement for acquisition of Wushuang Technology and CICC Cloud Data, 2015, Item 1. Accessed 2/22/2021

<sup>xvi</sup> <https://cue.group/en/> accessed 5/26/21, 7/2/21 English website produced by Cue.

<sup>xvii</sup> [http://www.xinhuanet.com/info/2020-10/28/c\\_139470907.htm](http://www.xinhuanet.com/info/2020-10/28/c_139470907.htm) dated 10/28/2020 (professional translation, DNA in the original Chinese)

<sup>xviii</sup> National Enterprise Credit Information Publicity System of China, corporate record for Huizhou Kaiyu Information Technology Co. Ltd., accessed 8/24/21, and <https://www.zhaodao88.com/company/72a40b31-1e83-4775-9c84-a9bcc1d9900d>. Both show Cue owns 60% of Huizhou Kaiyu and Zhuhai Zhongdun owns 21%.

<sup>xix</sup> National Enterprise Credit Information Publicity System records for Zhuhai Zhongdun Star Technology and Shanghai Shuchuan Data Technology Co, Ltd., accessed 8/24/21. <https://www.qcc.com/firm/a9793bcf03b409d5739be32bb337e897.html> Zhuhai Zhongdun Star Technology, accessed 7/2/2021; <https://www.zhaodao88.com/company/8e6b611c-b439-42de-8283-5ec4a5b22202> Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司, accessed 7/8/2021.

<sup>xx</sup> <https://cue.group/en/smartretail/index.html> accessed 9/6/21

<sup>xxi</sup> <https://cue.group/en/> accessed 9/6/21. Quote and image.

<sup>xxii</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/21

<sup>xxiii</sup> Weber, Valentin and Ververis, Vasilis, China’s Surveillance State: A Global Project; How American and Chinese Companies Collaborate in the Construction and Global Distribution of China’s Information Control Apparatus. August 2021.

<sup>xxiv</sup> China’s Smart Cities Development, Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) p.2.

<sup>xxv</sup> China’s Smart Cities Development, Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) p.48-49. “The MPS [Ministry of Public Security] has issued a range of guiding documents and technical standards intended to govern implementation of smart city information technology.”

<sup>xxvi</sup> <https://cue.group/en/smartretail/index.html> accessed 9/6/21

<sup>xxvii</sup> [http://www.xinhuanet.com/info/2020-10/28/c\\_139470907.htm](http://www.xinhuanet.com/info/2020-10/28/c_139470907.htm) dated 10/28/2020, professional translation.

<sup>xxviii</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/21, professional translation.

<sup>xxix</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/21, professional translation.

<sup>xxx</sup> <https://cue.group/news/index.html> 2020年08月04日, accessed 7/8/21, professional translation.

<sup>xxxi</sup> <https://www.36kr.com/newsflashes/3280086532097>, accessed 2/4/2020, professional translation.

<sup>xxxii</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/21, professional translation.

<sup>xxxiii</sup> <https://cue.group/news/index.html> 2020年04月02日, accessed 7/3/21, professional translation.

<sup>xxxiv</sup> <https://tech.chinadaily.com.cn/a/201910/28/WS5db690e7a31099ab995e8371.html> 10/28/2019

<sup>xxxv</sup> Sinnet share sale registration identifies Shi’s father, 施景曦 [http://quotes.money.163.com/f10/ggmx\\_300383\\_2018017.html](http://quotes.money.163.com/f10/ggmx_300383_2018017.html), accessed 2/22/2021. There is no ownership overlap with Beijing Zhongdun Company, which is wholly owned by the First Research Institute of the Ministry of Public Security.

<sup>xxxvi</sup> [http://www.gov.cn/zhengce/content/2017-04/28/content\\_5189574.htm](http://www.gov.cn/zhengce/content/2017-04/28/content_5189574.htm), accessed 3/9/2021, professional translation.

<sup>xxxvii</sup> <https://tech.chinadaily.com.cn/a/201910/28/WS5db690e7a31099ab995e8371.html> dated 10/28/2019, professional translation.

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<sup>xxxviii</sup> <https://tech.chinadaily.com.cn/a/201910/28/WS5db690e7a31099ab995e8371.html> dated 10/28/2019, professional translation.

<sup>xxxix</sup> Press Release Project number: ZHZN2020, Jinwan District government website: [http://www.jinwan.gov.cn/zwzx/czxx/zfcg/content/post\\_2679278.html](http://www.jinwan.gov.cn/zwzx/czxx/zfcg/content/post_2679278.html), accessed 5/24/2021

<sup>xl</sup> <https://tech.chinadaily.com.cn/a/201910/28/WS5db690e7a31099ab995e8371.html>, dated 10/28/2021, professional translation.

<sup>xli</sup> <http://nelivaiczh.com.cn/> 为响应国家工作“重心下移服务基层、保障下倾服务一线”的号召，2019年7月1日，视频国家工程实验室与珠海市金湾区政府联合创建视频国家工程实验室（珠海）创新中心。Accessed 8/19/2021, professional translation.

<sup>xlii</sup> <http://nelivaiczh.com.cn/> About Us. Accessed 8/19/2021, professional translation.

<sup>xliii</sup> <http://nelivaiczh.com.cn/a/xinwenzhongxin/xinwengonggao/50.html>, dated 04/19/2020, professional translation.

<sup>xliv</sup> <http://nelivaiczh.com.cn/a/xinwenzhongxin/xinwengonggao/50.html>, dated 04/19/2020, professional translation.

<sup>xlv</sup> <http://nelivaiczh.com.cn/> About Us. Accessed 8/19/2021, professional translation.

<sup>xlvi</sup> Images from Zhuhai Innovation Center website translated by Google Translate, <http://nelivaiczh.com.cn/plus/view.php?aid=23>, accessed 9/2/2021

<sup>xlvii</sup> 2020/03/17 <http://nelivaiczh.com.cn/plus/view.php?aid=14> accessed 6/1/2021, professional translation.

<sup>xlviii</sup> <https://www.state.gov/risks-and-considerations-for-businesses-operating-in-hong-kong/>, dated 7/16/2021

<sup>xlix</sup> <https://www.state.gov/risks-and-considerations-for-businesses-operating-in-hong-kong/>, dated 7/16/2021

<sup>l</sup> <https://www.theguardian.com/world/2021/aug/15/hong-kong-group-behind-major-pro-democracy-protests-disbands-amid-police-pressure>, dated 8/15/2021

<https://www.france24.com/en/20200707-china-gives-hong-kong-police-sweeping-security-surveillance-powers-under-new-law>, dated 7/7/2020

<https://www.bloomberg.com/news/articles/2021-01-05/ex-hong-kong-lawmakers-among-dozens-arrested-under-security-law>, dated 1/5/2021

<sup>li</sup> <http://nelivaiczh.com.cn/> 为响应国家工作“重心下移服务基层、保障下倾服务一线”的号召，2019年7月1日，视频国家工程实验室与珠海市金湾区政府联合创建视频国家工程实验室（珠海）创新中心。Accessed 8/19/2021, professional translation.

<sup>lii</sup> <http://www.neliva.com.cn/Index/lists/catid/11.html>, accessed 6/2/2021, professional translation.

<sup>liii</sup> <http://www.neliva.com.cn/Index/lists/catid/10.html>, accessed 6/2/2021, professional translation.

<sup>liv</sup> <http://www.neliva.com.cn/Index/lists/catid/11.html>, accessed 6/2/2021, professional translation.

<sup>lv</sup> <https://home.treasury.gov/news/press-releases/sm1073> Treasury Sanctions Chinese Entity and Officials Pursuant to Global Magnitsky Human Rights Executive Order 7/31/20

<sup>lvi</sup> <https://home.treasury.gov/policy-issues/financial-sanctions/consolidated-sanctions-list/ns-cmic-list> Accessed 8/31/21, first sanctioned in 2019: <https://www.reuters.com/article/us-usa-trade-china-exclusive-idUSKBN1WM25M>, dated 10/7/2019

<sup>lvii</sup> <http://www.neliva.com.cn/Index/lists/catid/11.html>, accessed 6/2/2021, professional translation.

<sup>lviii</sup> <http://www.neliva.com.cn/Index/lists/catid/10.html>, accessed 6/2/2021, professional translation.

<sup>lix</sup> <https://www.zhaodao88.com/company/126efe86-5507-4677-8384-390fd2ffe8ce>, accessed 6/7/2021

<sup>lx</sup> <https://www.zhaodao88.com/company/a8542c1a-60bc-49b8-91dd-2517e7da7c00> Zhaodao88 corporate filing documents, accessed 6/7/2021

<sup>lxi</sup> **Federal Register** Vol. 86, No. 107, June 7, 2021, Presidential Documents, “Executive Order 14032 of June 3, 2021: Addressing the Threat From Securities Investments That Finance Certain Companies of the People’s Republic of China”

<sup>lxii</sup> <https://www.treasury.gov/ofac/downloads/sdnlist.txt> CHINA NATIONAL ELECTRONIC IMPORT-EXPORT COMPANY, accessed 8/31/21

<sup>lxiii</sup> [http://www.cac.gov.cn/2015-06/01/c\\_1115476484.htm](http://www.cac.gov.cn/2015-06/01/c_1115476484.htm), dated 6/1/2015, Cyberspace Administration of China website, source Beijing News, professional translation.

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<sup>lxiv</sup> <https://greaterbayinsight.blog/national-engineering-lab-in-zhuhai/> in English; [http://zh.southcn.com/content/2019-07/03/content\\_188189607.htm](http://zh.southcn.com/content/2019-07/03/content_188189607.htm) in Chinese, dated 7/3/2019, professional translation.

<sup>lxv</sup> [http://www.cac.gov.cn/2015-01/21/c\\_1114068012.htm](http://www.cac.gov.cn/2015-01/21/c_1114068012.htm), dated 1/21/2015, Cyberspace Administration of China website, source Science and Technology Daily, professional translation.

<sup>lxvi</sup> <https://www.treasury.gov/ofac/downloads/sdnlist.txt>, accessed 9/24/2021

<sup>lxvii</sup> [http://www.cac.gov.cn/2015-01/21/c\\_1114068012.htm](http://www.cac.gov.cn/2015-01/21/c_1114068012.htm), dated 1/21/2015, Cyberspace Administration of China website, source Science and Technology Daily, professional translation.

<sup>lxviii</sup> <http://www.anicert.cn/news/newsinfo/94.html>, accessed 7/5/2021, professional translation.

<sup>lxix</sup> Zhaodao88 and <http://www.zhongdun.com.cn>, accessed 7/6/2021, professional translation.

<sup>lxx</sup> <http://www.zhongdun.com.cn/about/introduction/> accessed 8/31/21, professional translation.

<sup>lxxi</sup> <http://www.zhongdun.com.cn/news/news/2015/0330/38.html>, accessed 7/6/2021, professional translation.

<sup>lxxii</sup> <https://t.wangan.com/c/b5d98e11cfb744467> [FN 50]  
<https://t.wangan.com/c/b8ec089e6b330457d> [FN 52]  
<https://t.wangan.com/c/bea14da1259cc4044> [FN 52]  
<https://t.wangan.com/c/bae7ec86419af4d5a>

<sup>lxxiii</sup> <https://t.wangan.com/c/b5d98e11cfb744467>, accessed 5/21/2021

<sup>lxxiv</sup> <https://www.bis.doc.gov/index.php/documents/regulations-docs/2326-supplement-no-4-to-part-744-entity-list-4/file>, accessed 9/9/2021

<sup>lxxv</sup> <https://t.wangan.com/c/b8ec089e6b330457d> <https://t.wangan.com/c/bea14da1259cc4044> accessed 5/21/2021

<sup>lxxvi</sup> <https://t.wangan.com/c/bfaf9fb2dbfd04924> [EN 80]  
<https://t.wangan.com/c/bd296642953c84453>  
<https://t.wangan.com/c/bea0ed080fdde44b2> [EN 81]  
<https://t.wangan.com/c/b278576b4a2784c30> [EN 77]  
<https://t.wangan.com/c/b990ae5b01324473f>  
<https://t.wangan.com/c/bd41d1697195f451d> [EN 79]  
<https://t.wangan.com/c/b8993e725da7f442d> [EN 78]

<sup>lxxvii</sup> <https://t.wangan.com/c/b278576b4a2784c30>, accessed 7/6/2021

<sup>lxxviii</sup> <https://t.wangan.com/c/b8993e725da7f442d>, accessed 5/21/2021

<sup>lxxix</sup> <https://t.wangan.com/c/bd41d1697195f451d>, accessed 5/21/2021

<sup>lxxx</sup> <https://t.wangan.com/c/bfaf9fb2dbfd04924>, accessed 5/21/2021

<sup>lxxxi</sup> <https://t.wangan.com/c/bea0ed080fdde44b2>, accessed 5/21/2021

<sup>lxxxii</sup> <https://home.treasury.gov/news/press-releases/sm1073> Treasury Sanctions Chinese Entity and Officials Pursuant to Global Magnitsky Human Rights Executive Order dated 7/31/20

<sup>lxxxiii</sup> <https://home.treasury.gov/news/press-releases/jy0070>, dated 3/22/2021

<sup>lxxxiv</sup> [https://www.state.gov/wp-content/uploads/2020/07/Xinjiang-Supply-Chain-Business-Advisory\\_FINAL\\_For-508-508.pdf](https://www.state.gov/wp-content/uploads/2020/07/Xinjiang-Supply-Chain-Business-Advisory_FINAL_For-508-508.pdf), dated 7/1/2020

<sup>lxxxv</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021 and <https://www.zhaodao88.com/company/af139bac-ce8f-4d89-8a16-7ab6a117dd6a>

<sup>lxxxvi</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd and Kaiyu International Holdings Limited, accessed 8/24/2021, and <https://www.zhaodao88.com/company/15eea766-8d9c-4303-937b-e245ce1e847c>

<sup>lxxxvii</sup> SINO AD INVESTMENT PTE LTD Financial Statements filed with Singapore Accounting and Corporate Regulatory Authority, filed 9/16/2019, p. 22. Singapore company search accessed on 9/24/2021 shows no new financial statements filed since 9/16/2019.

<sup>lxxxviii</sup> SINO AD INVESTMENT PTE LTD Financial Statements filed with Singapore Accounting and Corporate Regulatory Authority, filed 9/16/2019, p. 22. Singapore company search accessed on 9/7/2021 shows no new financial statements filed since 9/16/2019.

<sup>lxxxix</sup> Singapore 2021 Business Profile SINO AD ULTIMATE HOLDINGS PTE LTD, accessed 8/18/2021.

<sup>xc</sup> <https://www.finsmes.com/2019/08/cue-closes-series-a-financing-round.html>

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<sup>xci</sup> <https://cue.group/news/index.html> , dated 8/13/2019 accessed 7/6/2021

<sup>xcii</sup> <https://www.zhaodao88.com/company/868b20ad-3adc-4f02-bcf9-5d3625f2d063> Shanghai Jukan Information Technology, accessed 6/8/2021

<sup>xciii</sup> [http://quotes.money.163.com/f10/ggm300383\\_2018017.html](http://quotes.money.163.com/f10/ggm300383_2018017.html) search\_交易对方施侃的父亲施景曦买卖光环新网股票情况如下. (Page 9 of excerpt document.) Accessed 2/22/2021, professional translation.

<sup>xciv</sup> China's Smart Cities Development, Research Report Prepared on Behalf of the U.S.-China Economic and Security Review Commission, January 2020, [https://www.uscc.gov/sites/default/files/2020-04/China\\_Smart\\_Cities\\_Development.pdf](https://www.uscc.gov/sites/default/files/2020-04/China_Smart_Cities_Development.pdf) p. 46.

<sup>xcv</sup> [www.cciachina.org.cn/nd.jsp?id=259](http://www.cciachina.org.cn/nd.jsp?id=259) CCIADT Technical Standards Release, T/CSPIA 003-2020. CSPIA: <http://xh.21csp.com.cn/c66/200909/24940.html> , accessed 7/13/2021, professional translation.

<sup>xcvi</sup> The EAR Entity list as of 7/19/2021 includes Hikvision, Huawei and Dahua <https://www.bis.doc.gov/index.php/documents/regulations-docs/2326-supplement-no-4-to-part-744-entity-list-4/file> ; Commerce Department added Suzhou Keda and Geling Shentong to the EAR Entity List on 7/12/21 p2 <https://www.govinfo.gov/content/pkg/FR-2021-07-12/pdf/2021-14656.pdf>; FCC Covered List dated 3/12/2021 includes Hikvision, Huawei and Dahua <https://www.fcc.gov/document/fcc-releases-list-equipment-services-poses-security-threat>

<sup>xcvii</sup> The EAR Entity list includes Hikvision, Huawei and Dahua as of 9/9/2021 <https://www.bis.doc.gov/index.php/documents/regulations-docs/2326-supplement-no-4-to-part-744-entity-list-4/file>

Los Angeles Times, 2/10/2021 <https://www.latimes.com/business/technology/story/2021-02-10/senators-amazon-dahua-inquiry-ughurs-rubio-menendez>

<sup>xcviii</sup> Commerce Department added Suzhou Keda and Geling Shentong to the EAR Entity List on 7/12/21 p2 <https://www.govinfo.gov/content/pkg/FR-2021-07-12/pdf/2021-14656.pdf>

<sup>xcix</sup> <https://cue.group/en/> Our Partners and Key Partners on main page of the English version of Cue's website, accessed 8/13/2021.

<sup>c</sup> <https://www.fcc.gov/document/fcc-releases-list-equipment-services-poses-security-threat>, 3/12/2021, FCC press release

<sup>ci</sup> <https://home.treasury.gov/policy-issues/financial-sanctions/consolidated-sanctions-list/ns-cmic-list> accessed 8/31/21

<sup>cii</sup> <https://home.treasury.gov/policy-issues/financial-sanctions/consolidated-sanctions-list/ns-cmic-list> Accessed 8/31/21



## 12/2/2021 Addendum to Cue Report dated 9/28/2021:

### Summary of Cue Ownership based on new documentation outlined below:

KKR owns Cue through Singapore and Cayman Islands companies. KKR does not disclose what percentage of Cue it owns. KKR formed Cue in December 2017, owned 100% of Cue at year end 2018, and brought in Anchor and Princeville as investors in October 2019.<sup>i</sup> In 2020, KKR identifies as subsidiaries Cue's parent companies and two personal companies owned by Cue CEO Shi Kan,<sup>ii</sup> the two we discuss in our 9/28/2021 report. Until November 1, 2021, KKR executives comprised a majority of directors of Shanghai Kaiyu, Cue's Chinese company. As of December 2, 2021, KKR executives remain directors of Cue's 2 Singapore parent companies, and no ownership changes have been made public.<sup>iii</sup>

### New Information

#### 1. **KKR Subsidiaries:**

KKR records identify a number of Cue-related companies as subsidiaries, including companies we mentioned in our September 28, 2021 report.

It is noteworthy that Zhuhai Zhongdun Star Technology Co., Ltd. is identified as a subsidiary of KKR in documents dated February 12, 2020. Zhuhai Zhongdun is the personal company of Cue CEO Shi Kan and his father that developed surveillance technology with the government-run Video National Engineering Laboratory (Zhuhai) Innovation Center, an arm of China's First Research Institute of the Ministry of Public Security.

Chinese documents also show that Zhuhai Zhongdun's parent company, Shanghai Shuchuan Data Technology, pledged its shares to Cue on April 7, 2020. That pledge continues, according to records of the National Enterprise Credit Information Publicity System of China accessed as recently as November 23, 2021.<sup>iv</sup> Shanghai Shuchuan owns 99% of Zhuhai Zhongdun Star Technology.

KKR also identified 4 Cue companies registered in Horgos, Xinjiang as subsidiaries.

**KKR Subsidiaries related to Cue**, according to its February 12, 2020 securities filing<sup>v</sup>:

#### Shi Kan's personal companies

- Zhuhai Zhongdun Star Technology Co., Ltd., 99% owned by Shanghai Shuchuan
- Shanghai Shuchuan Data Technology Co., Ltd., whose capital shares are pledged to Cue (Shanghai Kaiyu Information Technology Co., Ltd.)

#### Cue & its parent companies

- Shanghai Cue Information Technology Co., Ltd.
- SINO AD INVESTMENT PTE. LTD.
- SINO AD ULTIMATE HOLDINGS PTE. LTD.
- Sino Ad Investment Holdings Limited

- Sino Ad Investment II Holdings Limited
- CUE HOLDINGS LIMITED
- Cue RN Investment Limited

Cue subsidiaries

- Khorgos AnG Information Technology Co., Ltd.
- Khorgos Qixinhudong Technology Co., Ltd.
- Khorgos Qiyihudong Technology Co., Ltd.
- Khorgos Qiyihudong Technology Co., Ltd. Beijing Branch
- Shanghai Cue Information Technology Co., Ltd. Beijing Branch
- Shanghai Jukan Information Technology Co., Ltd.
- Shanghai Kaicai Consulting Management Co., Ltd.
- Shanghai Yingjia Advertising Co., Ltd.
- Shanghai Yingjia PR Consulting Co., Ltd.
- Beijing Chaojunheng Digital Media Co., Ltd.
- Beijing Kaiyugongying Technology Co., Ltd.
- Beijing Qixinhudong Technology Co., Ltd.
- Beijing Ruijinmingyuan Information Technology Co., Ltd.
- Beijing Zhongtiankaiyu Sports Advisory Co., Ltd.

2. **Recent changes to Cue and SINO AD INVESTMENT’s Directors:**

Subsequent to our 9/28/2021 report, Cue and its parent companies filed certain changes to directors in their corporate filings in China and Singapore. Publicly available records show no ownership changes in Cue’s parent companies since our report.

We do not know what prompted Cue’s corporate registry changes in November. However, Cue’s changes are occurring during a time of new data security laws and increased regulatory action by the Chinese government over information technology companies, with a goal of restricting access to Chinese data by foreign interests.<sup>vi</sup>

Cue’s Chinese registered parent companies, **Shanghai Kaiyu Information Technology Co. Ltd** and **Kaiyu International Holdings**, updated their directors on 11/1/2021, removing KKR executives and appointing<sup>vii</sup>:

- 邹浩冰 Zou Haobing – Cue executive
- 崔桂勇 Cui Guiyong - Baring PE Asia Managing Director
- 尤舒婷 You Shuting - Baring PE Asia Principal
- KKR continues to identify Xu Kang as “currently a board member of Cue & Co” as of 12/2/2021.<sup>viii</sup>

Cue’s Singapore parent company, **SINO AD INVESTMENT PTE. LTD.** updated its directors on 11/3/2021:

- Xu Kang – appointed 11/3/2021, he is KKR Director of Private Equity and a Cue Board member from its inception<sup>x</sup>

- Shi Kan – appointed 6/1/2021, Cue’s CEO and Legal Representative<sup>x</sup>
- Wang Mengzhi – appointed 6/1/2021, he is affiliated with Anchor Private Equity and a Cue Director from 10/23/2019<sup>xi</sup>
- Cui Guiyong – Baring PE Asia Managing Director, appointed 11/3/2021
- You Shuting – Baring PE Asia Principal, appointed 11/3/2021

## **UPDATED Appendix 1 (p. 24-25): Corporate Details of Primary Cue and Shi Kan Companies**

### **Cue Parent Company**

The Chinese parent company of Cue-related companies is 上海开域信息科技有限公司 **Shanghai Kaiyu Information Technology Co., Ltd.**, which KKR identified as a subsidiary in 2020.<sup>xii</sup>

Shanghai Kaiyu Information Technology Co., Ltd. is owned by **SINO AD INVESTMENT PTE. LTD.** (48.89%) and its Chinese-registered subsidiary **Kaiyu International Holdings** (51.11%).<sup>xiii</sup> SINO AD INVESTMENT PTE. LTD owns 100% of Kaiyu International Holdings, according to November 2021 updated filings.<sup>xiv</sup> KKR identifies SINO AD INVESTMENT PTE. LTD., as a subsidiary in 2020.<sup>xv</sup>

**SINO AD INVESTMENT PTE. LTD.** is a Singapore company wholly owned by CUE HOLDINGS LTD, a Cayman Islands company, as of November 14, 2021.<sup>xvi</sup> KKR identifies CUE HOLDINGS LTD as a subsidiary in 2020.<sup>xvii</sup>

**CUE HOLDINGS LTD**, Cayman Islands is wholly owned by Sino Ad Investment Holdings Limited, a Cayman Islands exempted limited company, as of September 16, 2019, the latest information filed in Singapore.<sup>xviii</sup> KKR identifies Sino Ad Investment Holdings Limited as a subsidiary in 2020.<sup>xix</sup>

Cayman Islands **Sino Ad Investment Holdings Limited** is wholly owned by SINO AD ULTIMATE HOLDINGS PTE LTD, a Singapore company, according to financial statements filed in Singapore on September 16, 2019, the latest filed.<sup>xx</sup>

**SINO AD ULTIMATE HOLDINGS PTE LTD** is wholly owned by KKR entities, with KKR Asia III Fund Investments Pte Ltd owning 83%, as of filings through November 22, 2021.<sup>xxi</sup>

### **Cue Chinese Parent Company**

- 1) Shanghai Kaiyu Information Technology Co., Ltd. 上海开域信息科技有限公司  
Unified social credit code: 91310230MA1K019L9R
  - a) Kaiyu International Holdings - 51.11% 开域国际控股有限公司  
Unified Social Credit Code: 91440300MA5G2B3Y9L
    - i) SINO AD INVESTMENT PTE. LTD - 100%<sup>xxii</sup> (Singapore)
  - b) SINO AD INVESTMENT PTE. LTD - 48.89% (Singapore)
    - i) CUE HOLDINGS LTD (Cayman Islands)

## Cue Subsidiary with Zhuhai Zhongdun

- 2) Huizhou Kaiyu Information Technology Co Ltd 惠州市开域信息科技有限公司  
Unified Social Credit Code: 91441302MA556MKU67
  - a) Shanghai Kaiyu Information Technology Co., Ltd. – 60%
  - b) Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司 - 21%
    - i) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司 – 99%  
**All shares of Shanghai Shuchuan pledged to Shanghai Kaiyu Information Technology Co., Ltd.**
      - (1) Shi Kan 施侃 – 55%
      - (2) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
        - (a) Yuan Hengmei 袁亨美 50%
        - (b) Shi Jingxi 施景曦 50% - Shi Kan's father<sup>xxiii</sup>
    - ii) Du Yilin 杜宜霖 – 1%
  - c) Zeng Yinqiang 曾茵强 - 19%

## Shi Kan Personal Companies

- 3) Zhuhai Zhongdun Star Technology Co., Ltd. 珠海中盾之星科技有限公司  
Unified Social Credit Code: 91440400MA53W8KU8G
  - a) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司 – 99%  
**All shares of Shanghai Shuchuan pledged to Shanghai Kaiyu Information Technology Co., Ltd.**
    - i) Shi Kan 施侃 – 55%
    - ii) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
      - (1) Yuan Hengmei 袁亨美 50%
      - (2) Shi Jingxi 施景曦 50% - Shi Kan's father
  - b) Du Yilin 杜宜霖 – 1%
- 4) CUE Hong Kong Holdings Limited
  - a) Shanghai Shuchuan Data Technology Co., Ltd. 上海数川数据科技有限公司  
**All shares of Shanghai Shuchuan pledged to Shanghai Kaiyu Information Technology Co., Ltd.**
    - i) Shi Kan 施侃 – 55%
    - ii) Shanghai Micong Information Technology 上海美聪信息技术有限公司 – 45%
      - (1) Yuan Hengmei 袁亨美 50%
      - (2) Shi Jingxi 施景曦 50% - Shi Kan's father

Note: Registered address for Shi's personal company Shanghai Shuchuan Data Technology is a few rooms away from Shanghai Kaiyu's corporate address:

上海市崇明区竖新镇响椿路116号3幢310室 Shanghai Shuchuan Data Technology

上海市崇明区竖新镇响椿路116号3幢328室 Shanghai Kaiyu Information Technology

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- <sup>i</sup> <https://cue.group/news/index.html> , dated 8/13/2019 accessed 7/6/2021;  
<https://www.finsmes.com/2019/08/cue-closes-series-a-financing-round.html>; Shanghai Kaiyu corporate record of changes, Zhaodao88, accessed 11/12/2021
- <sup>ii</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020.
- <sup>iii</sup> Singapore filings for SINO AD INVESTMENT, accessed 12/1/2021 <https://www.kkr.com/our-firm/leadership/kang-xu>; Singapore filings for SINO AD ULTIMATE accessed 11/22/2021; <https://www.kkr.com/our-firm/leadership/adam-hyland> <https://www.kkr.com/our-firm/leadership/ck-yan>
- <sup>iv</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Shuchuan Data Technology Co., Ltd., accessed 11/23/2021
- <sup>v</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020.
- <sup>vi</sup> [https://www.wsj.com/articles/chinas-new-power-play-more-control-of-tech-companies-troves-of-data-11623470478?st=fznzb45vjr0lumap&reflink=article\\_email\\_share](https://www.wsj.com/articles/chinas-new-power-play-more-control-of-tech-companies-troves-of-data-11623470478?st=fznzb45vjr0lumap&reflink=article_email_share)  
<https://www.orrck.com/en/Insights/2021/09/Chinas-New-Data-Security-Law-What-International-Companies-Need-to-Know>
- <sup>vii</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd, accessed 11/11/2021
- <sup>viii</sup> <https://www.kkr.com/our-firm/leadership/kang-xu> KKR identifies Xu Kang as a “Board member of Cue & Co.” on its website as of 11/30/2021. Chinese corporate records for Shanghai Kaiyu identify Xu Kang as a Director at formation through 11/1/2021.
- <sup>ix</sup> <https://www.kkr.com/our-firm/leadership/kang-xu> KKR identifies Xu Kang as a “Board member of Cue & Co.” on its website as of 12/2/2021. Chinese corporate records for Shanghai Kaiyu identify Xu Kang as a Director at formation through 11/1/2021.
- <sup>x</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd, accessed 11/16/2021
- <sup>xi</sup> Shanghai Kaiyu corporate record of changes, Zhaodao88, accessed 11/12/2021
- <sup>xii</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020, p. 227.
- <sup>xiii</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd, filed 11/1/2021, accessed 11/11/2021 and Kaiyu International Holdings Limited, filed 11/10/2021, accessed 11/16/2021
- <sup>xiv</sup> National Enterprise Credit Information Publicity System of China, corporate record for Shanghai Kaiyu Information Technology Co., Ltd, filed 11/1/2021, accessed 11/11/2021 and Kaiyu International Holdings Limited, filed 11/10/2021, accessed 11/16/2021
- <sup>xv</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020, p. 231.
- <sup>xvi</sup> Singapore filings for SINO AD accessed 12/01/2021. Singapore’s registration number for SINO AD is 201725890W, and its ID number for CUE HOLDINGS is T18UF0868E.
- <sup>xvii</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020, p. 100.
- <sup>xviii</sup> SINO AD INVESTMENT PTE LTD Financial Statements filed with Singapore Accounting and Corporate Regulatory Authority, filed 9/16/2019, p. 22. Singapore company search accessed on 12/01/2021 shows no new financial statements filed since 9/16/2019.
- <sup>xix</sup> <https://www.traviata-angebot.de/delisting/en/offer/> KKR Offer Document for Public Delisting of Axel Springer, February 12, 2020, p. 231.
- <sup>xx</sup> SINO AD INVESTMENT PTE LTD Financial Statements filed with Singapore Accounting and Corporate Regulatory Authority, filed 9/16/2019, p. 22. Singapore company search accessed on 12/01/2021 shows no new financial statements filed since 9/16/2019.

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<sup>xxi</sup> Singapore 2021 Business Profile SINO AD ULTIMATE HOLDINGS PTE LTD, accessed 11/22/2021. No new filings as of 12/1/2021.

<sup>xxii</sup> National Enterprise Credit Information Publicity System of China, corporate record for Kaiyu International Holdings Limited filed 11/10/2021, accessed 11/16/2021

<sup>xxiii</sup> [http://quotes.money.163.com/f10/ggm300383\\_2018017.html](http://quotes.money.163.com/f10/ggm300383_2018017.html) search 交易对方施侃的父亲施景曦买卖光环新网股票情况如下. (Page 9 of excerpt document.) Accessed 2/22/2021, professional translation.