



“WE CONNECT THE WORLD”

“POINT-LINE-PLANE” STRATEGY ALONG THE SILK ROAD

Digital Silk Road: Technical Competition Analysis Team

Introduction

The purpose of this paper is to raise awareness of the depth and breadth of potential strategic integration between China Merchants Port Holdings Company Ltd. (CMPort) and the Chinese People’s Liberation Army/Navy (PLA/PLAN). Many studies focus on the dual use of technologies for both civilian and military purposes. This paper considers a **fusion of strategic approach** between the People’s Republic of China (PRC) civilian and military strategies. To be a successful authoritarian regime in the digital age, the PRC needs decision support capabilities that ingest, fuse, and display comprehensive data across multiple commercial, government, and military sectors into common centers of gravity.

The strategic fusion of PRC commercial organizations, such as CMPort, and PLA/PLAN requires the U.S. to bring a whole-of-government campaign to mitigate this threat.

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We Connect the World

CMPort, whose mission statement is “we connect the world,” employs a “point-line-plane” strategy to develop its intelligent ports. Chinese military writers also apply a point-line-plane strategy to the military concept of “strategic strong points.” Both strategies are manifest in Djibouti. While use of this identical point-line-plane strategy could be merely coincidence, it also could serve to align military and civilian actors and advance the Chinese Communist Party’s military-civil fusion (MCF) strategy.

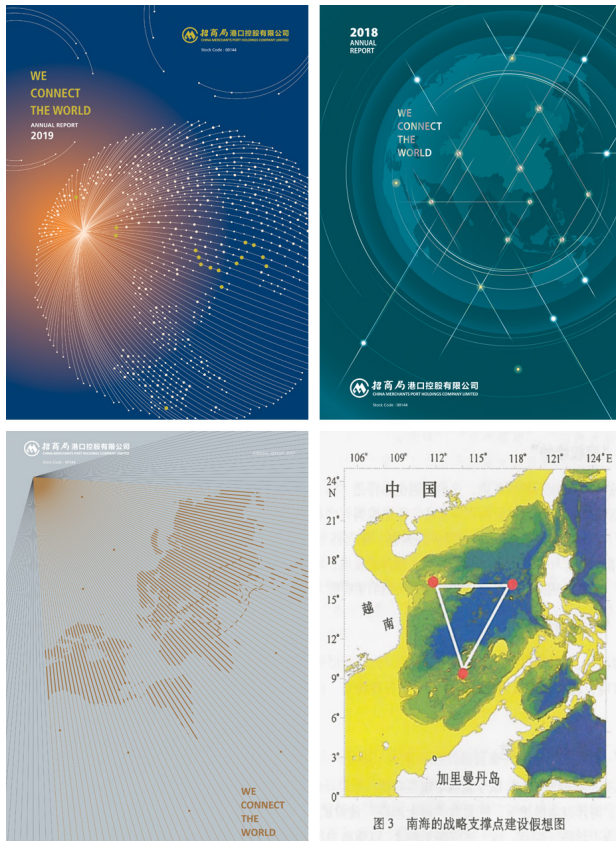


FIGURE 1. THREE CMPORT ANNUAL REPORT COVER DESIGNS, JUXTAPOSED WITH PRC DEPICTION OF INTERLOCKING STRATEGIC STRONG POINTS IN THE SOUTH CHINA SEA (SOURCE: CMPORT, 2019, 2018, 2017; KENNEDY, 2019A)

CMPort Intelligent Port Point-Line-Plane Development Strategy

CMPort, a Hong Kong-based subsidiary of the PRC’s state-owned enterprise (SOE) **China Merchants Group (CMG)**, is a global port developer, investor, and operator. CMPort has a stake in 31 foreign ports (**Figure 2**). CMG and CMPort are known for pioneering the “shekou,” or port-park-city (PPC) model, a “‘full-stream-of-logistics-production-and-urban services’ model (a port in the front, an industrial zone in the middle, and a city at the back)” (Liu et al., 2020). As a “ready-made template that has been exported world-wide,” the PPC model provides investment opportunities for a range of PRC SOEs not directly engaged in financing, building, and operating ports (Liu et al., 2020). Recently, CMPort presented a PPC extension concept, a “co-ordinated port,” to achieve “intra-port and hinterland mobility” and additional digital, mobility, and process optimization (CMPort, 2021b). In the context of smart technologies, the PPC and coordinated port models are conducive to data collection, modeling and analysis, and systems integration (e.g., digital twins) across their associated ports, industrial parks, factories, and residential developments world-wide.

China’s National Development and Reform Commission (NDRC) and Ministry of Industry and Information Technology have promoted the development of 5G and “intelligent port” as one of seven major 5G innovation application upgrading projects (Si, 2020c). CMPort prioritizes the development of intelligent ports (CMPort, 2020) and has several facilities focused on their development: (1) a 5G Intelligent Port Innovation Laboratory; (2) the China Merchants Port Technology Innovation Research Institute; and (3) a port innovation industrial fund, China Port and Shipping Innovation Development



FIGURE 2. CMPort GLOBAL PORT NETWORK (SOURCE: CMPort, 2021B)

Investment Center (Si, 2020b). The 5G Intelligent Port Innovation Laboratory, jointly established by **CMPort**, **China Mobile**, **Huawei**, and others for 5G port industry development, is expected to advance intelligent port technology application and support the development of ports that are participating in China's Belt and Road Initiative (BRI) (Si, 2019). Beginning operations in 2019, the China Merchants Port Technology Innovation Research Institute aims to research and analyze technology-empowered port industry, build the port technology innovation ecosystem, and explore business model innovations and applied technology and digital platforms for the port industry (Si, 2020b). The China Port and Shipping Innovation Development Investment Center is an industrial fund jointly invested and established by CMPort and Chinese port groups (Si, 2020b).

Additionally, CMPort and **Tencent** signed several cooperation agreements to develop intelligent ports, one of which establishes a smart port technology lab to “research and develop digital assistants to provide digital services for port, logistics, trading and consumers” (Si, 2021). This lab aims to develop “unmanned trucks, intelligent port operations, port digital twins and technologies for related areas” (Si, 2021). CMPort also signed a strategic cooperation agreement with **Alibaba** and **Ant Group** to jointly promote the “port + internet” platform by establishing an alliance for trade logistics and the financial sector (Si, 2020c). CMPort distinguishes intelligent ports from smart ports; intelligent ports exceed the automation typically employed in smart ports (Si, 2020b).

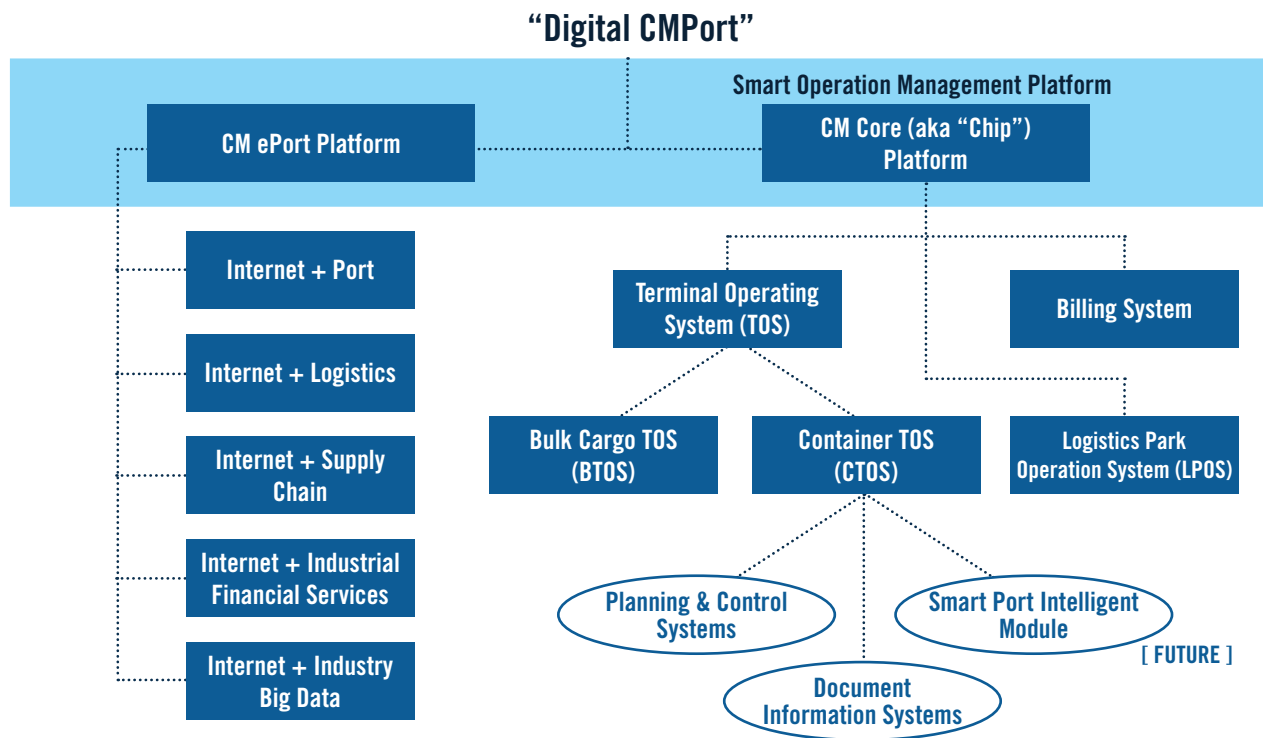


FIGURE 3. DIGITAL CMPORT
(SOURCES: CMPORT, 2021A; CMPORT, 2019; CM EPORT, [ND]; SI, 2020A)

Intelligent ports “sense the environmental changes dynamically to autonomously run examinations, study, make decisions and carry out actions to realize optimise[d] port services and create value” (Si, 2020b). These capabilities allude to underlying technologies, such as the industrial Internet of Things enabling sensors, artificial intelligence—including machine learning enabling autonomy and decision-making—and likely service-based architecture aspects of 5G and software defined networks, enabling further service and value creation. In fact, CMPort has described its model for upgrading traditional docks at home and abroad as consisting of nine smart elements: China Merchants Core (CM Core), China Merchants ePort

(CM ePort), artificial intelligence, 5G application, BeiDou Navigation Satellite System, automation, smart customs, blockchain, and green and low-carbon operation (Si, 2020d).

To realize intelligent ports, CMPort is developing Digital CMPort, consisting of three platforms: CM Core, CM ePort, and a Smart Operation Management Platform (CMPort, 2019; p. 11) (see notional diagram, Figure 3). “CM Core” (aka “CM Chip”)¹ is a port and terminal operation management solution (TOS) to address broad management and production activities encompassing people, finance, cargo, and business (Si, 2020a). TOS is the core component of CM Core (i.e., CM Chip) (Si, 2020a). CMPort

¹We have seen both “CMCore” and “CM Chip” and believe they refer to the same platform (e.g., compare text in CMPort Annual Reports 2019 (p. 29) and 2020 (p. 30)).

²See also, China Merchants International Technology Company Ltd., “Terminal Operations Management System.” <http://www.cmhit.com/en-us/products-and-services/wharf-operation-management-system>.

has several TOS products, including CTOS (Container Terminal Operation System), BTOS (Bulk Cargo Terminal Operation System), and LPOS (Logistic Park Operation System) (CMPort, 2020).² CTOS, for example, uses a modular structure, where the basic functions include a planning and control system, a document information system, and the capacity to expand to a smart port intelligent module (Si, 2020a) (**Figure 3**).

Another platform, “CM ePort,” is the “only and unified platform for external services of CMPort’s terminals.” Operated and maintained by Yingkou Port Integrated Logistics Co., Ltd., CM ePort is accessed via the internet (www.cmeport1872.com) and consists of five business segments: “Internet + Port,” “Internet + Logistics,” “Internet + Supply Chain,” “Internet + Industrial and Financial Services,” and “Internet + Industry Big Data” (CM ePort, ([IND])). The purpose of CM ePort is to support the external services of all CMPort’s ports, wharfs, and parks; improve the customer experience; build a port ecosystem; and promote transactions between logistics parties through the platform (CM ePort, ([IND])). CM ePort aims to “innovate the service models by improving the information service system and adopting the ‘Port + Internet’ approach, so as to explore and develop an open platform for intelligent ports” (CMPort, 2021a) (**Figure 3**).

CMPort is also developing a “Smart Operation Management” platform designed to improve management standards for CMPort and its subsidiaries’ operations. The platform will “improve management standards for operations to develop a world-class operation and management system that sustainably creates value, as well as a value-oriented management headquarters” (CMPort,

2021a). Additionally, the Smart Operation Management system will support CMPort’s ability to focus on its strategies and strengthen management, efficiency, and control across the entire lifecycle of its projects (CMPort, 2021a).

CMPort Executive and Managing Director, Bai Jingtao,³ has articulated the near-, mid-, and long-term strategy for the company’s development of intelligent ports based on a point-line-plane:

“Referring to the intelligent port development, we will follow the ideas of ‘point-line-plane’ and combine industry + technology to push and optimize it. The ‘point’ and ‘line’ is what are doing for short-term development, while the ‘plane’ is our mid and long term development direction.

1. **Focus on single port construction**, to promote intelligent reform of the ports and terminals under CMP. The reform of these ports and terminals will be based on the terminal operation system with proprietary intellectual property rights of CMP, and focus on traditional port upgrading to form a series of reformation plans for our terminals. The intelligent reform of this type of ports and terminals will provide strong support to our affiliated ports and terminals’ services.
2. **Connecting the service line**, developing the digital eco-system circle of a single port and expanding business following logistics chain and trading value chain. We are developing ‘CM ePort’ platform, adopting the pattern of port + internet to connect our affiliated ports in China and overseas, using digital technology to support our customers’ service and realize the innovation on business model, increase regional trade facilitation.

³Mr. Bai Jingtao resigned as Executive and Managing Director effective 26 Aug 2021, and the CMPort Board of Directors appointed Mr. Wang Xiufeng in his place. (Announcement: Change of Executive Director, Managing Director and Member of Board Committees. 26 Aug 2021, <http://www.cmport.com.hk/UpFiles/bpic/2021-08/20210826052616467.pdf>).

3. **Forming the value plane**, which means expanding ‘[C]M ePort’ platform, to attract self-owned and external ports and terminals’ digital ecosystem services to join in, to combine different lines to plane” (quoted in Si 2020b; emphasis added).

The difference between “CM ePort” and “CM Core” delineates the trusted (i.e., PRC-controlled) from non-trusted portions of CMPort’s digital ecosystem. “CM Core” uses a proprietary capability associated with CMPort-affiliated “points” (ports and terminals). “CM ePort’s” five business segments use the internet and thus are externally oriented and help create the line. The internet-enabled pathway supports connecting, regulating,⁴ and optimizing among the proprietary points and nodes in broader logistics and value chains. Bai Jingtao explains,

*“[t]he intelligent port construction **cannot exist excluding the logistics supply chain, it will need each sector of the upstream and downstream industry chain to upgrade synchronously, to break out the traditional cooperation model and realize more data sharing, online coordination and ecological cooperation.** It will need joint efforts from logistics industry chain players and government authorities. Intelligent port is one component of intelligent supply chain, the intelligent supply chain may hurt the vested interests under traditional logistics pattern, but it will bring overall benefits to the whole industry and improve trade facilitation level”* (Si, 2020b, emphasis added).

This quote highlights the role of the logistics supply chain, the “upstream and downstream industry chain,” and digital enhancement associated with the notion of the (value) “plane.” It also suggests the plane has disruptive potential, which also emerges in the military application of the strategy.

PLA Point-Line-Front Strategy for Overseas Strategic Strong Points

In a detailed analysis of Chinese naval strategy and strategic strong points, Conor Kennedy⁵ has identified a point-line-plane strategy (2019a). PRC officials and analysts use the concept of “overseas strategic strongpoints” (海外战略支点) to describe foreign ports with special strategic and economic value that host terminals and commercial zones operated by Chinese firms (Kardon et al., 2020). Kennedy’s definition of strategic strong points comes from the PRC’s *Science of Military Strategy*, which describes these points as locations that “provide support for overseas military operations or act as a forward base for deploying military forces overseas.” Strategic strong points, he notes, are used differently in different contexts, and the term may refer to “a quasi-alliance relationship; in other cases, it is used in the context of overseas ports.” *Science of Military Strategy* states PRC “must build overseas strategic strong points that depend on the homeland, radiate into the surrounding areas, and move toward the two oceans.” PLA military writers suggest strategic strong points will improve the Chinese military’s ability to operate overseas and help create an “overseas support system” (analysis credited to Kennedy, 2019a).

⁴Compare to the strategic strong point’s use of points and lines to “control chokepoints” (Section 1.3).

⁵Conor Kennedy is a research associate at the U.S. Naval War College China Maritime Studies Institute, whose research focuses on Chinese military development and maritime strategy. “Conor M. Kennedy, Biography.” USNWC. <https://usnwc.edu/Faculty-and-Departments/Directory/Conor-M-Kennedy>.

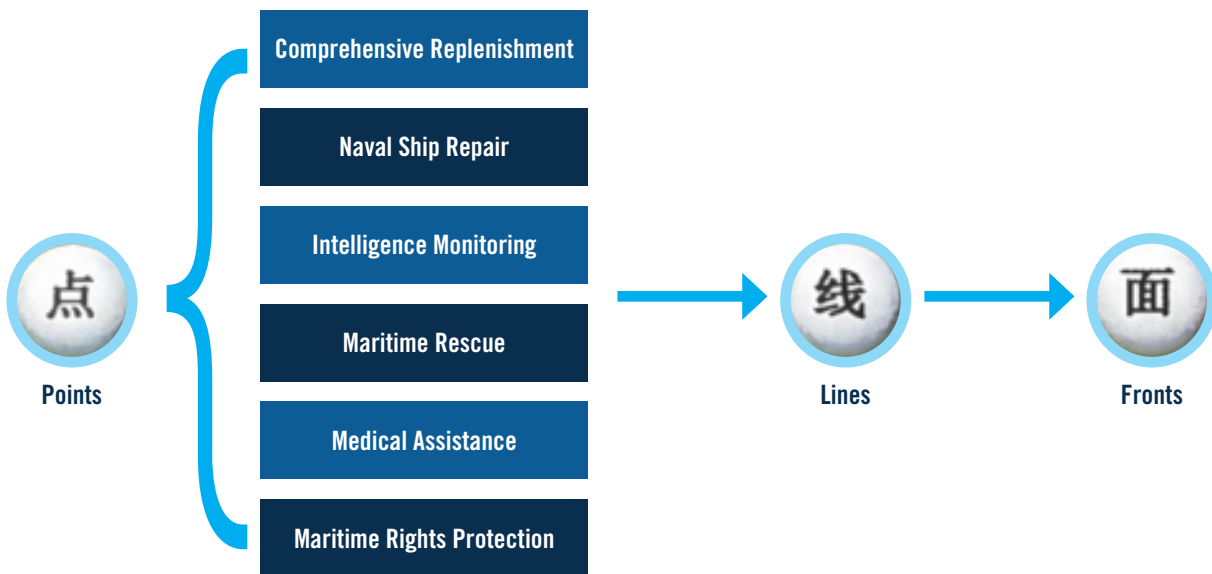


FIGURE 4. POINTS, LINES, AND FRONT STRATEGY FOR ‘MARITIME SILK ROAD’ STRATEGIC STRONG POINT CONSTRUCTION
SOURCE: C. KENNEDY, 2019A, “(ORIGINAL GRAPHIC MODIFIED TO PROVIDE AUTHOR’S TRANSLATION OF THE ORIGINAL CHINESE).” PROCEEDINGS FROM THE 8TH MARITIME POWER STRATEGY FORUM, OCTOBER 21, 2016. [HTTP://CPFD.CNKI.COM.CN/ARTICLE/CPFDTOTAL-EGVE201610001003.HTM](http://CPFD.CNKI.COM.CN/ARTICLE/CPFDTOTAL-EGVE201610001003.HTM)).

Each strategic strong point, according to Kennedy’s analysis, should be established near a crisis region, support escort operations, and stand to play a role in proactively stabilizing local conflicts. Additional strategic strong point functions are visible in **Figure 4**: comprehensive replenishment, naval ship repair, intelligence monitoring, maritime rescue, medical assistance, and maritime rights protection.

Resonant for economic or national security concerns related to smart or intelligent ports, Kennedy notes that PLA strategists see a role for strategic strong points in supporting intelligence support functions. For example, two PRC military strategists have described a “‘sea & space battlefield versatile situation picture’ that integrates various

intelligence sources to provide real-time visualized information support for the PLAN’s overseas actions” and which “will support the PLAN’s defensive strategy in its strategic strong points, maritime passages, and core interest areas” (Kennedy 2019a).

Like CMPort’s strategy for intelligent port development, Chinese military writings discuss a point-line-plane strategy for strategic strong points. Faculty at the Dalian Naval Academy have explained the functions of strategic strong points in what they refer to as the Points, Lines, and Fronts Strategy for ‘Maritime Silk Road’ Strategic Strong Point Construction (Kennedy 2019a). More specifically,

“Chinese strategists are already discussing the need to integrate individual strategic strong points into an overseas support system. The need to connect individual ‘points’ (dian, 点) into ‘lines’ (xian, 线) is a common theme in discussions about strategic strong points (Administrative Reform, June 2016). Officers from the PLAN Command College describe a future basing layout that ‘combines points and lines’ and ‘controls chokepoints.’⁶ Chinese experts also point out that these lines should eventually combine to form ‘fronts’ (mian, 面) (Proceedings from the 8th Maritime Power Strategy Forum, October 21, 2016)” (Kennedy 2019a).

Moreover, Kennedy suggests Chinese strategists are sensitive about broadcasting “grander ambitions” associated with fronts (i.e., planes),

“The subject of ‘fronts’ is currently unclear and somewhat sensitive. Some discussions of a mutually supporting network of strategic strong points intentionally avoid drawing connections between each point, fearing that doing so could raise fears about China’s grander ambitions... China must realistically plan numerous ‘points,’ but only let some of them ‘bloom.’ Some can make developmental breakthroughs, but multiple ‘lines’ should not coincide with each other. The most strategically valuable strategic strong points must be developed first.”⁷

Point-Line-Plane: Theory Meets Practice in Djibouti

Djibouti serves as a manifestation of the CMPort and strategic strong point, point-line-plane strategy.

China considers its Djibouti PLA Navy base as its first overseas strategic strong point (Kennedy, 2019a).

Following this military thread, CMG subsidiary organizations Sinotrans & CSC, CSC RORO Logistics Co., Ltd., and Shanghai Changjiang Shipping contribute to PLA strategic projection support forces for military operations (Kennedy, 2019b). The PEACE cable, a Chinese owned and operated submarine cable connecting Europe and Africa directly to China through Chinese fiber in Pakistan, enables dedicated PRC information and cyber projection and collection in Djibouti (and interconnected locations such as Ethiopia) as well as other PEACE cable landing locations.

Djibouti’s **Doraleh Multipurpose Port (DMP)**, a **CMPort “point,”** is adjacent to the PLAN base and was jointly developed by CMPort and the Djibouti Ports and Free Zones Authority (DPFZA), the asset manager for all Djibouti’s ports. CMPort subsidiary China Merchants Holdings (International) Information Technology Company Limited (CMHIT)⁸ installed **CMPort’s BTOS intelligent port technology** in Djibouti’s DMP in 2017 (CMIT, [2021]). Moreover, CMPort has several other

⁶Kennedy cites the original Chinese for the phrase describing China’s basing layout as “点线结合、控制咽喉、依托城市、重在长远。” See: 谌力, 汪丽, 韦政 [Chen Li, Wang Li, Wei Zheng], “新安全观视域下海外基地转型重塑的影响及启示” [The Impact and Lessons of the Transformation and Reconstruction of Overseas Military Bases Under the New Security Concept], 国防 [National Defense], No. 9, 2017, pp. 41-45.

⁷Original Chinese is “可以多点运筹, 但不宜全面开花; 适宜重点突破, 不能多线并进。” See: 胡欣 [Hu Xin], “中国的海外战略支点建设需要处理好五对关系” [China’s Construction of Overseas Strategic Strong Points Must Deal with Five Relationships], 世界知识 [World Affairs], No. 3, 2018, p. 74.

⁸In 2021, CMHIT changed its name to China Merchants International Technology Co. Ltd. (CMIT) (“About Us: Company Advantage: Development Path: Company 2017.” China Merchants International Technology Company Limited Website, <http://www.cmhit.com/en-us/about-us/company-advantage>).

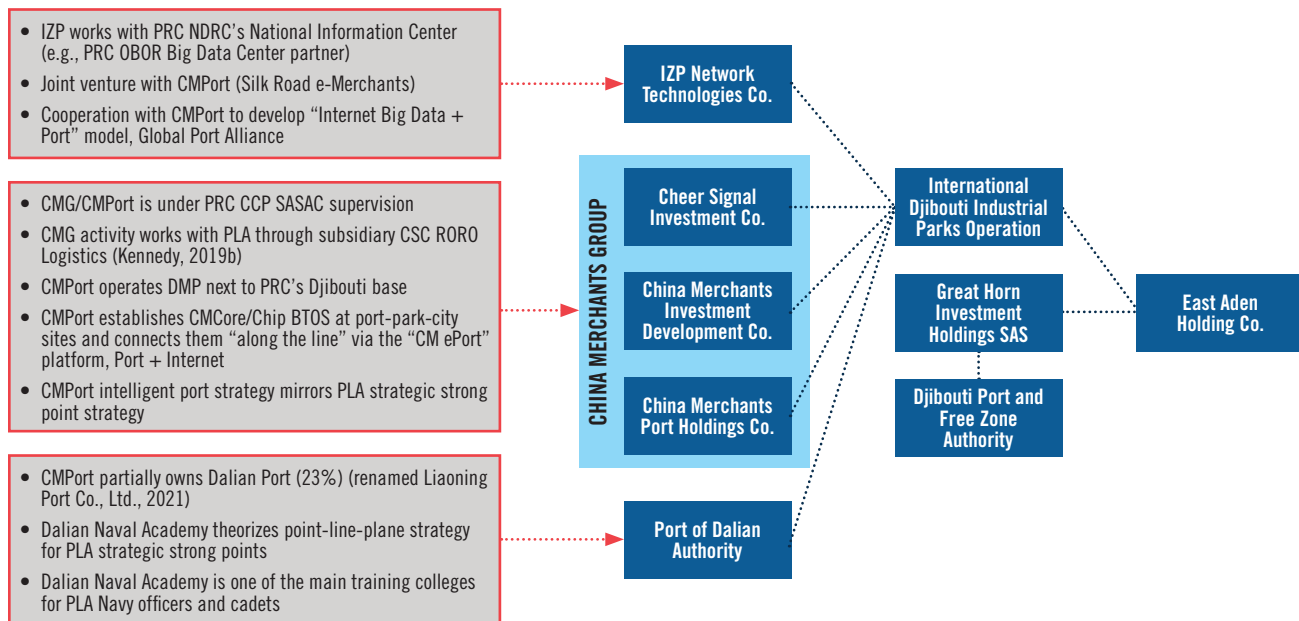


FIGURE 5. ANNOTATING KEY PRC DIFTZ STAKEHOLDERS WITH A ROLE IN THE POINT-LINE-PLANE STRATEGY (SOURCE FOR DIFTZ STAKEHOLDERS (BLUE): PAIRAULT, 2020; SOURCE FOR ANNOTATIONS (RED): AUTHORS)

joint ventures in Djibouti,⁹ including the Djibouti International Free Trade Zone (DIFTZ), which aims to be the largest free trade zone in Africa once complete (DIFTZ, [2021]).

China partners with Djibouti through the East Aden Holding Company (aka O&M Venture), a joint venture in charge of DIFTZ operations and maintenance. The Chinese consortium **International Djibouti Industrial Parks Operation holds 60% of the joint venture**, and Djibouti's Great Horn Investment Holding holds the other 40%. The Chinese consortium comprises three China Merchant entities, so that CMG holds two-thirds majority of the shares. **Port of Dalian Authority Group** and **IZP Network Technologies** (a Chinese technology company) each hold increasingly smaller shares,

respectively (for further information, see Pairault, 2020; IMF, 2021; and CMPort *Annual Reports*) (Figure 5).

Given the PRC members of the DIFTZ joint venture, the Port of Dalian stakeholder is noted because, perhaps coincidentally, Dalian is also home to the Dalian Naval Academy, whose faculty theorized about the point-line-plane strategy for strategic strong points (ref. Figure 4). The Dalian port operator (Port of Dalian Authority Group) changed its name to "Liaoning Port Co., Ltd." in January 2021 (Jiang, 2021) (Dalian is in Liaoning province). According to the Australian Strategic Policy Institute, PLA Dalian Naval Academy is one of the main training colleges for PLA Navy officers and cadets, and its scientists publish on defense topics such as differential global positioning systems for precision

⁹More of CMPort's Djibouti engagements are described in MITRE Report (2021). Djibouti Digital Silk Road Case Study: PEACE Cable Actors and Objectives.

naval weapons, smokescreens for defense against anti-ship missiles, naval electronic warfare systems, underwater acoustics, and anti-submarine warfare.

Another member of the PRC DIFTZ joint venture, IZP Technologies (IZP), is notable for its ties to multiple PRC state-level government organizations to promote BRI (i.e., One Belt, One Road (OBOR)) digital initiatives. IZP’s website indicates it helped launch OBORBIGDATA.com in Xinjiang Uyghur Autonomous Region, People’s Republic of China (IZP, (2016a). This launch is confirmed in a *China Daily* report, although with fewer details (Luo & Shi, 2016). In IZP’s version of this launch, an NDRC representative is reported to have stated that the website “serves the big picture of the ‘Belt and Road’ Initiative” and suggested “analysis should be done in an innovative way and that ministries and relevant departments should share information in a timely manner” (IZP, 2016a). In addition to OBOR proponent NDRC, IZP claims on its website to have connections to high-level PRC organizations, such as the National Ministry of Science and Technology (MOST) (IZP, 2015b) and the SOE China Aerospace Science and Technology Corporation (CASC) (IZP, 2015c).

At the end of 2016, IZP was included in the signing of agreements between China and Djibouti to establish the International Silk Road Bank, the East Africa Financial Centre, and the Africa Big Data Centre headquarters (IZP, 2016b). Djibouti is designated as a “Silk Road Station” through the CMPort-IZP joint venture, Silk Road e-Merchants (CMPort, 2016; IZP ([ND]a). IZP indicates Djibouti is one of the “Global Port Union” ports and one of the 29 ports of their Global Port Alliance partnership with CMPort (**Figure 6**). As a Silk Road Station, Djibouti’s “radiation region” includes Eastern and Southern Africa (IZP ([ND]a) (Figure 6). This “radiation” language echoes the *Science of Military Strategy* imperative that PRC “must build overseas strategic strong points that depend on the homeland, radiate into the surrounding areas, and move toward the two oceans” (Kennedy, 2019a).

In 2015, **IZP CEO and former Huawei employee, Luo Feng**, and **CMG Vice President Hu JianHua** delivered a speech together about “**Internet Big Data + Port**” and **port technology innovation**, indicating IZP and China Merchants planned to cooperate to develop port services through the

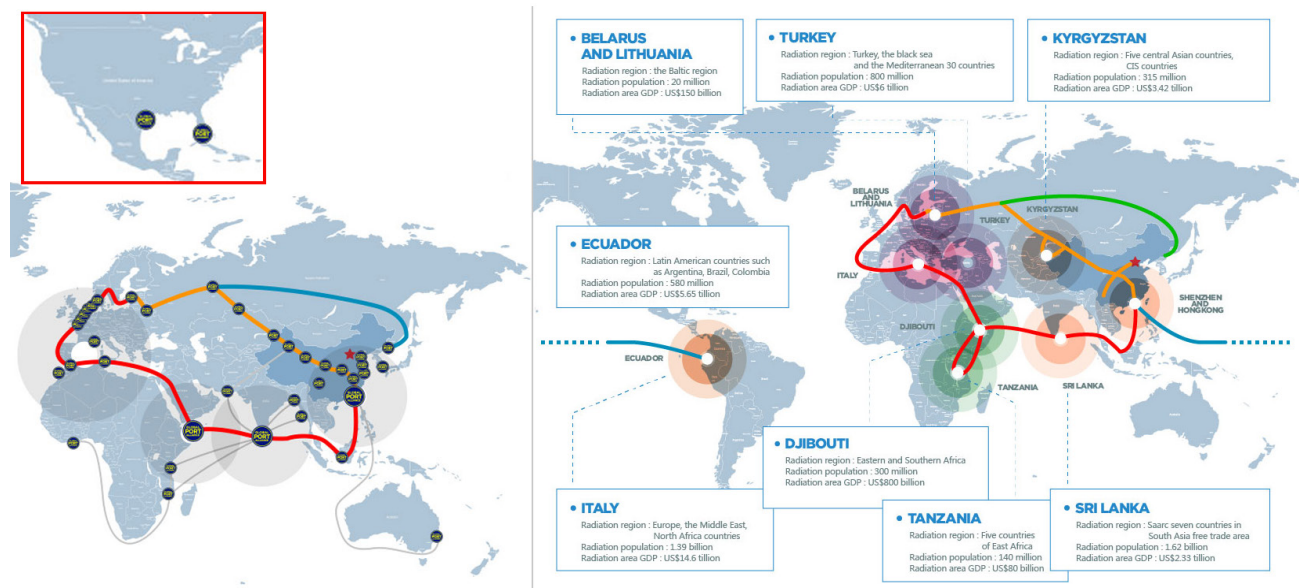


FIGURE 6. IZP, CMG GLOBAL PORT ALLIANCE (LEFT); IZP SILK ROAD STATION “RADIATION REGIONS” (RIGHT)
SOURCE: IZP [ND]A

“Internet Big Data + Port” model (Luo Feng, IZP, 2015). This **“Internet Big Data + Port”** language mirrors language found in the *CMPort Annual Reports* (e.g., 2020), which states, “The ‘CM ePort’ platform will innovate the service models by improving the information service system and adopting the **‘Port + Internet’** approach for the port, to explore and develop an open platform for intelligent ports” (CMPort, 2020, p. 30). The CM ePort website identifies five ePort business segments, all based on “Internet +”, with one specifically focused on “Internet + Industry Big Data” and another on “Internet + Port” (refer to **Figure 3**).

In his interview with *Seatrade Maritime News*, Bai Jingtao refers to Port + Internet when explaining how ports are “[c]onnecting the service line, **developing the digital eco-system circle of a single port and expanding business following logistics chain and trading value chain.**” IZP adopts the point and line metaphor in describing its partnership with NDRC to build the One Belt, One Road Big Database to help the governments and enterprises “along the line” (**Figure 7**).

Elsewhere IZP indicates its OBOR big data platform will **“collect global port trade, finance, GIS information, domestic and foreign statistics and industry business data as well as domestic and foreign internet data...”** and **“give data support and decision-making support to relevant national departments for “OBOR” planning and coordination”** (IZP, ([ND]b); emphasis added).

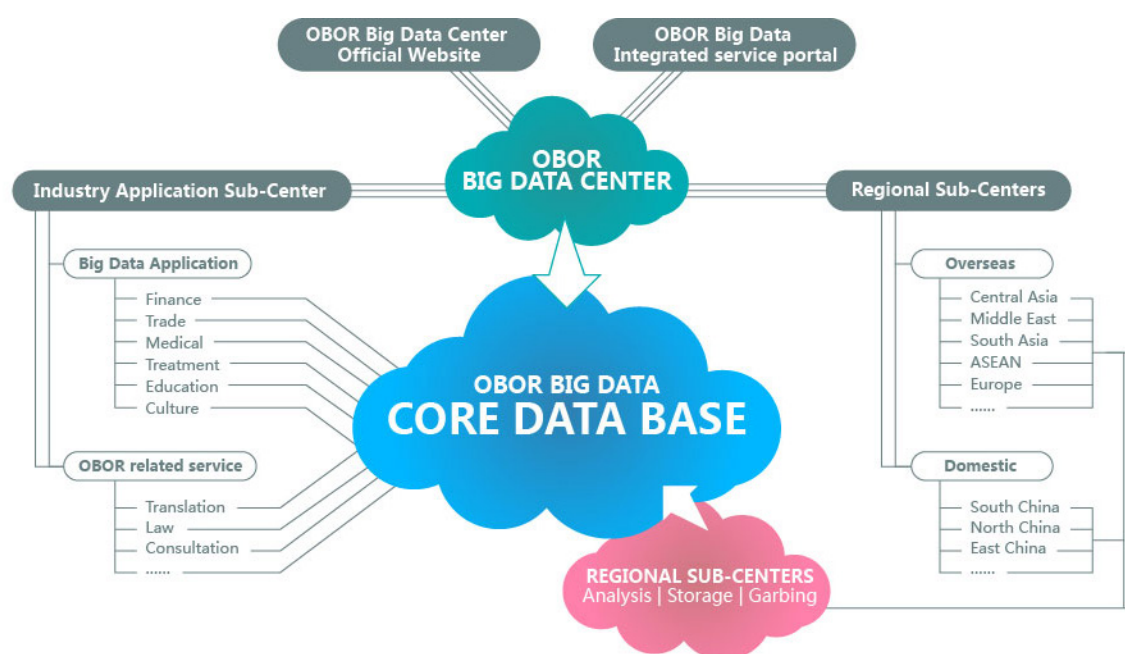


FIGURE 7. “OBOR BIG DATA CORE DATA BASE” CONCEPT. SOURCE: IZP [ND]A

Conclusion

Point-and-line partners CMPort (a PRC SOE- and PLA-affiliated organization) and IZP (with ties to NDRC, MOST, and CASC) are poised to collect and synthesize global information along the Silk Road. CMPort aims to install and develop its digital capabilities along the BRI, as exemplified with IZP, and with the help of its expanding shekou model, a “ready-made” template for use by other PRC SOEs. Combined with other PRC-controlled infrastructure, such as the PEACE cable, the CCP and PLA are poised to augment military collection with logistics, business, and other geographic-specific intelligence associated with CMPort’s business strategy. IZP’s state-level partnerships suggest this massive BRI data collection will be used for high-level PRC decision-making. Beyond intelligence gathering and state planning, strategically placed infrastructure could potentially be manipulated, controlled, or managed by the PRC as part of their military power projection, either alone or as part of multi-domain operations in coordination with overseas forces such as those located in Djibouti. **Table 1** summarizes the civilian and military point-line-plane strategy and its integration.

	CMPort Intelligent Port Strategy	PLA Strategic Strong Point Strategy	Djibouti Manifestations
Point	Focus on single port construction to promote intelligent reform of the ports and terminals	A location to provide support for overseas military operations or act as a forward base for deploying military forces overseas	CMPort: CM Core/Chip: intelligent port TOS implementations and upgrades; in Djibouti, DMP (BTOS) or other PPC CM Core applications IZP: Djibouti Silk Road Station/OBOR Big Data sub-stations PLA: Djibouti Base
Line	Connect the service line, develop the digital eco-system circle of a single port, and expand business following logistics chain and trading value chain	Connecting individual points (dian, 点) into lines (xian, 线) is a common theme in discussions about strategic strong points	CMPort: CM ePort platform, Port + Internet to connect CMPort-affiliated enterprises IZP: Global Port Alliance, Big Data Core Data Base PEACE submarine cable provides Chinese-owned, -operated connection from Djibouti
Plane (i.e., Front)	CMPort uses Smart Operation Management Platform to “create value” and a “value-oriented management headquarters” CM ePort “builds beyond the line” to encompass “external services of all ports, wharfs and parks of CMPort, improve customer experience, build a port ecosystem, promote transactions between logistics parties through the platform, improve efficiency and create port innovative services to achieve port business model innovation” (CM ePort, ND)	Combine points and lines and control chokepoints; these lines should eventually combine to form fronts (mian, 面); fronts are sensitive	CMPort, IZP (or other) OBOR Big Data Core Data Base for CCP, PLA planning, intelligence Military-civilian fusion; enhanced intelligence collection and analysis PRC controlled infrastructure and facilities provide the PLA ability to initiate actions in support of their interests

TABLE 1. SUMMARY OF POINT-LINE-PLANE STRATEGY

The point-line-plane strategy draws on the notion of dimensional geometry,¹⁰ progressing from simple to complex, where a plane is portrayed as “value” or a “mutually supporting network”—a construct associated with cumulative or synergistic advantage and control. Both points and lines can embody dual use potential, providing value in both a commercial and military sense; however, when formed into the plane or front, the combined impact is more powerful as it enjoins other resources, radiating or projecting from any part (or all) of the plane. As previously noted, for intelligent ports, *“attract[ing] self-owned and external ports and terminals’ digital ecosystem services to join in, to combine different lines to plane”* reflects the intent that other entities may be enlisted and leveraged for greater effect. Civilian and military integration amplifies the strategic improvements.

¹⁰Keith G. Calkins (2006). Lesson 1: Undefined: Points, Lines, and Planes. A Review of Basic Geometry. Revised on or after May 17, 2006. <https://www.andrews.edu/~calkins/math/webtexts/geom01.htm>.

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Appendix A: IZP Technologies Organization Chart

The IZP Technologies Organization Chart shows four main business lines (Big Data, Finance, Global Port Union, and Silk Road Station). Djibouti-specific organizations are highlighted: Djibouti Silk Road International Bank (Finance); Djibouti Port (Global Port Union); and Silk Road Station of Djibouti DPFZA (Silk Road Station) (IZP ([IND]a).

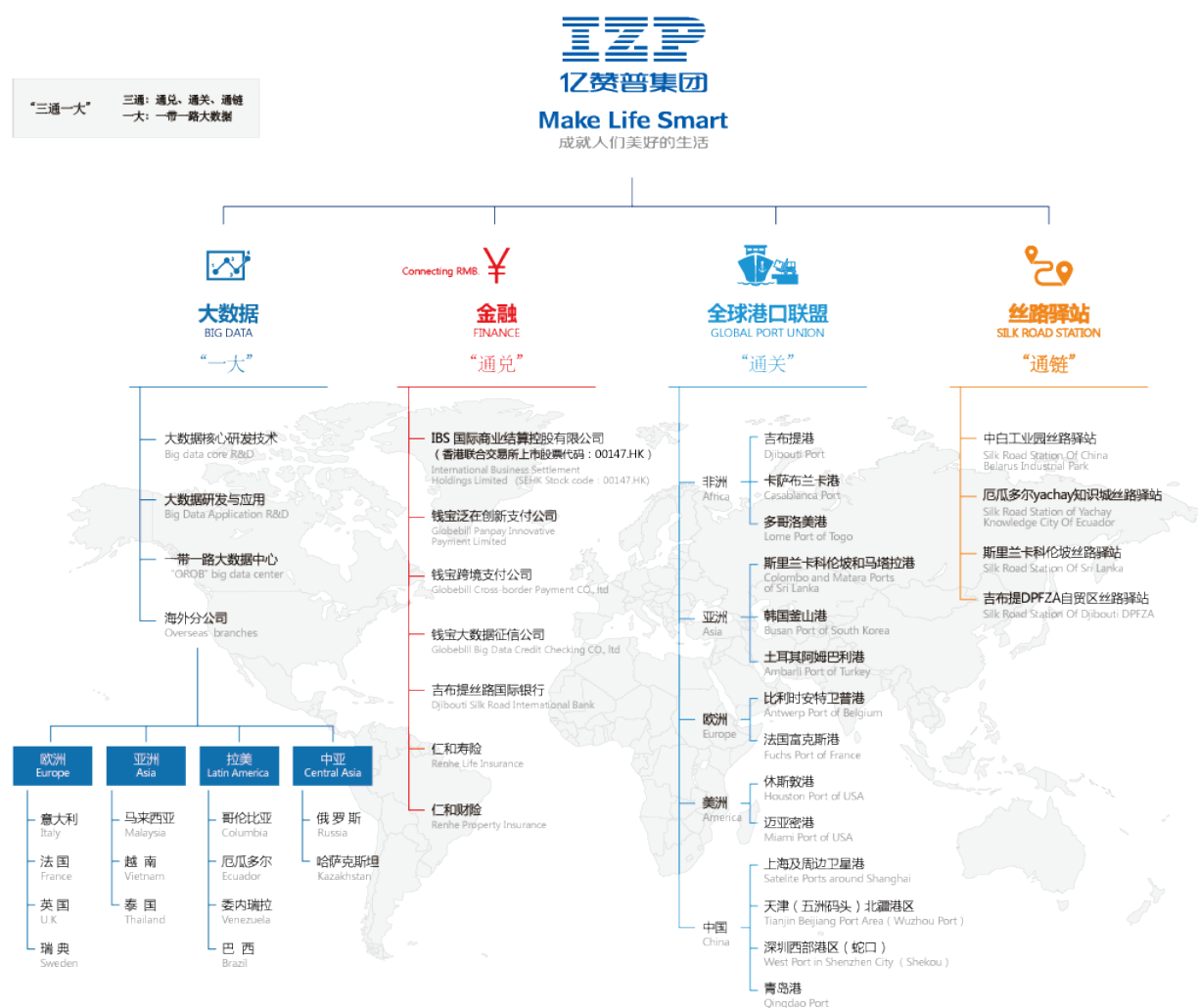


FIGURE 8. IZP TECHNOLOGIES ORGANIZATIONAL CHART

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