

# CHINA'S CLOUD-BASED COMMUNICATIONS SERVICES MARKET

## INDEPENDENT MARKET STUDY

Confidential for

Project Galaxy

**Frost & Sullivan**  
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For and on behalf of  
**Frost & Sullivan (Beijing) Inc., Shanghai  
Branch Co.**

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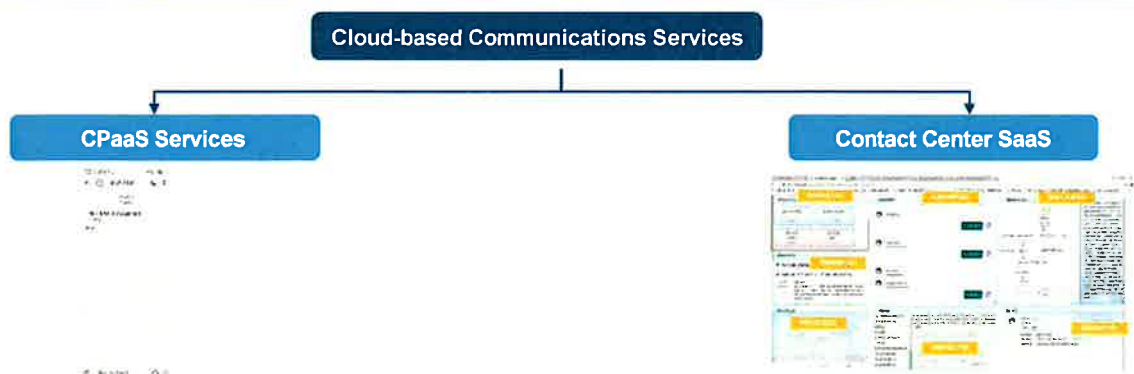
- 1 Analysis of China's Cloud-based Communications Services Market
- 2 Analysis of China's CPaaS Service Market
- 3 Analysis of China's Contact Center SaaS Market
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## Analysis of China's Cloud-based Communications Services Market

### Market Definition and Overview

- Cloud-based communications services refer to communications services and solutions provided to corporate and public organizations based on cloud technologies.
- Cloud-based communications services primarily include (i) CPaaS services, which refer to a technology delivery model that enables companies to embed omnichannel communication functions into their business systems and applications with APIs or SDKs; and (ii) Contact Center SaaS, which refers to an efficient and intelligent contact center solution provided to corporate and public organizations with SaaS as the main deployment method. Cloud-based communications services providers can offer one or more types of services tailored to different customers' requirements and application scenarios. In recent years, with the rapid development of cloud technology and the continuous expansion of application scenarios, the demand for cloud-based communications services have been growing steadily, driving the development of China's cloud-based communications services market.

#### Classification of Cloud-based Communications Services

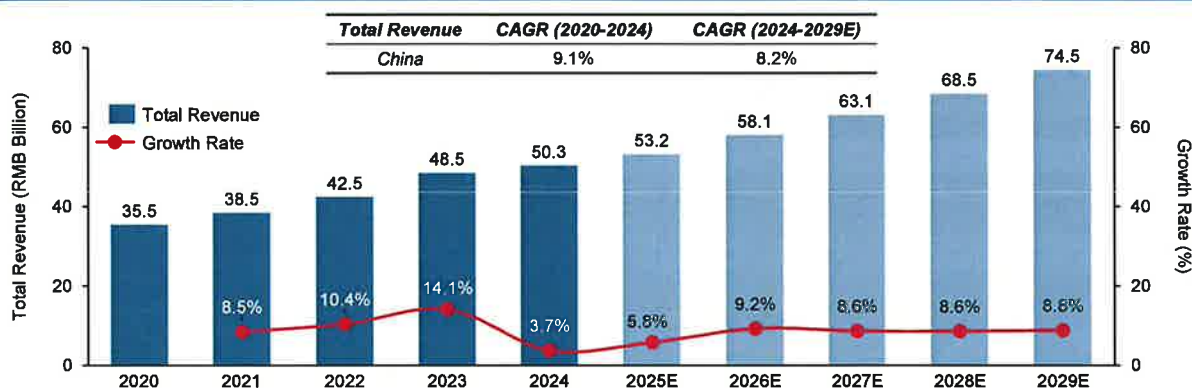


Source: Frost & Sullivan Analysis

# Analysis of China's Cloud-based Communications Services Market

## Market Size of China's Cloud-based Communications Services

Total Revenue of Cloud-based Communications Services Market (China), 2020 – 2029E



- With the expanding application of cloud technologies and increasing demand for cloud migration from downstream customers, China's cloud-based communications services market experienced a continuous growth in recent years. From 2020 to 2024, the total revenue of China's cloud-based communications services market increased from RMB35.5 billion to RMB50.3 billion, growing at a CAGR of 9.1%. In the future, with the further digital transformation and the expanding application scenarios of cloud communication, China's cloud-based communications services market is expected to maintain a rapid growth. In 2029, the total revenue of China's cloud-based communications services market is expected to reach RMB74.5 billion, representing a CAGR of 8.2% from 2024 to 2029.
- The market size of China's cloud-based communications services refers to the total revenue generated by both providers with single service capability and full-suite communications services providers. As of December 31, 2024, there were approximately 800 cloud-based communications services providers in China, among which there were approximately 780 service providers with single service capability and approximately 20 full-suite service providers. The total revenue of service providers with single service capability accounted for approximately 90% of the total revenue of China's cloud-based communications services market in 2024, whilst the total revenue of full-suite service providers accounted for approximately 10% of the total revenue of China's cloud-based communications services market in 2024.

Source: Ministry of Industry and Information Technology; Frost & Sullivan Analysis

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# Analysis of China's Cloud-based Communications Services Market

## Market Drivers

Drivers	Main Content
<b>Stable development of communication infrastructure</b>	<ul style="list-style-type: none"> <li>China has witnessed steady growth in information technology industry and continuous advancement of basic communication infrastructure in recent years, which provides a solid foundation for the development of cloud-based market. IT infrastructure refers to Companies' IT systems and software which enables voice and text messages. The total IT expenditure, which is mainly used in construction of basic IT infrastructure, increased from RMB2,866.7 billion in 2020 to RMB3,736.1 billion in 2024, growing at a CAGR of 6.8%, which reflected the stable development of basic IT infrastructure. Stable communication infrastructure is essential for the development of cloud-based communications services market, as it relies on Internet and cloud computing to acquire and process customers' data so as to provide customized communications services.</li> </ul>
<b>Accelerated cloud migration</b>	<ul style="list-style-type: none"> <li>Cloud technologies are technologies which provide software via cloud server, as opposed to software deployed at a Company's IT system. The application of cloud technologies has gradually expanded over the last few years as cloud technologies have prominent advantages in scalability and flexibility, cost saving, improved security and reliability, and business continuity and disaster recovery compared to traditional on-premises IT infrastructure. Although the penetration of cloud-based communications services in China stays relatively low, the accelerated cloud migration in China will promote the rapid development of China's cloud-based communications services market.</li> </ul>
<b>Strong downstream demand for improving communication capabilities</b>	<ul style="list-style-type: none"> <li>With an increasing number of enterprises and the dynamic changes in customers' needs, the downstream industries are facing intense competition. Therefore, it is crucial to obtain strong communication capabilities, as well as improve customer service quality and satisfaction, so as to enhance competitiveness. Cloud-based communications services provide an intelligent platform to integrate communication capabilities and efficient contact center, which can improve enterprises' service quality and operational efficiency. Meanwhile, more enterprises have been aware of the importance of cloud-based communications services, which has stimulated strong downstream demand for improving communication capabilities.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's Cloud-based Communications Services Market

### Future Opportunities

Future Opportunities	Integration of AI	<ul style="list-style-type: none"> <li>The integration of artificial intelligence, such as generic and specific large language model, with cloud-based communications services is expected to become a market trend in the future. AI-driven communications services refer to the service offerings that employ various AI tools including natural language processing, large language model, among others, to achieve better interaction with people and improve end users' experience. AI-driven communications services can significantly enhance the personalization and intelligence of customer services, improve service efficiency and accuracy, and expand the application scenarios of project-based communications solutions. Therefore, the further integration of AI in China's cloud-based communications services market is expected to transform customers' needs and promote a surge in demand for AI-driven communications services in the future. The cloud-based communications services providers with technical knowledge, expertise and successful experience in AI-driven communications services can easily capture future opportunities to increase their market shares.</li> </ul>
	Expansion of application scenarios	<ul style="list-style-type: none"> <li>With the advancement of enterprise digital transformation, cloud-based communications services are playing an increasingly important role in internal and external communications for enterprises. On one hand, the comprehensive cloud-based communications services can meet the extensive communication needs of enterprises at various growth stages, and on the other, the application scenarios of cloud-based communications services are continuously expanding from empowering communication capabilities to integrated smart solutions such as online education, telemedicine and smart cities.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's Cloud-based Communications Services Market

### Entry Barriers

Entry Barriers	
Initial Capital Investment	<ul style="list-style-type: none"> <li>For new entrants, it is crucial to have sufficient capital to ensure a sustainable business operation for cloud-based communications services. Initial expenses are primarily required in hiring technical talents, software development, business promotion, server leasing or construction, building supply chain, among others. For those players who want to occupy a considerable market share in the cloud-based communications services market, sufficient initial capital is indispensable, which sets up barriers for new entrants.</li> </ul>
Service Capabilities	<ul style="list-style-type: none"> <li>The core of cloud-based communications services lies in the integration of cloud technologies as well as multi-touch communication and AI capabilities into service platforms, which requires market players' strong expertise and sufficient experience in order to provide customized solutions tailored to diversified customers' needs. For new entrants who lack strong service capabilities, their inability to offer effective solutions would be one of the major barriers to their access to China's cloud-based communications services market.</li> </ul>
Marketing Channels and Customer Resources	<ul style="list-style-type: none"> <li>Establishing and maintaining effective marketing channels is vital for cloud-based communications services providers to reach a larger business scale. Therefore, it is particularly important for market players to have a well-functioning sales and marketing mechanism to promote their products and services, and meanwhile maintain long-term cooperative relationships with existing customers. However, new entrants are relatively vulnerable in terms of business operations, making them unable to establish solid marketing channels to expand customer bases.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's Cloud-based Communications Services Market Competitive Landscape

- China's cloud-based communications services market is relatively fragmented with intense competition. Depending on different service capabilities and main business, China's cloud-based communications services providers can be primarily divided into (i) providers with single service capability, who focus on a specific type of cloud-based communications services, such as CPaaS services or Contact Center SaaS; and (ii) full-suite communications services providers, who offer comprehensive cloud-based communications services covering both CPaaS services and Contact Center SaaS.
- As of December 31, 2024, there were approximately 800 cloud-based communications services providers in China.
- In recent years, there have been diversified downstream demands for cloud-based communications services, expanding from the demand for telecommunications resources to comprehensive solutions for both corporate communication and customer services. Compared to purchasing scattered resources and services from different service providers, downstream customers are more inclined to obtain full-suite cloud-based communications services with high efficiency and convenience from a single service provider. In the future, cloud-based communications services providers will be dedicated to developing full-suite service capabilities to meet diverse customers' needs.

Source: Frost & Sullivan Analysis

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## Analysis of China's Cloud-based Communications Services Market Ranking and Market Share

China's Top Five Cloud-based Communications Services Providers By Revenue, 2024

Ranking	Company	Background Information	Core Business	Listing Status	Market Share (%)
1	Company A	Founded in 2001 and headquartered in Shenzhen, Company A is one of the leading CPaaS service providers in China, with major businesses including enterprise cloud-based communication platforms. In 2024, its revenue derived from cloud-based communications services reached approximately RMB3.9 billion.	CPaaS Service	Listed	7.8%
2	Company B	Founded in 1999 and headquartered in Suzhou, Company B is one of the leading CPaaS service providers in China, with clients and partners in various industries such as communications, bank, logistics, retail, Internet, media, public services, among others. In 2024, its revenue derived from cloud-based communications services reached approximately RMB3.4 billion.	CPaaS Service	Listed	6.8%
3	Our Group	See "Business"	Full-suite Communications Services	-	1.8%
4	Company C	Founded in 2012 and headquartered in Wuxi, Company C is one of the leading enterprises focusing on the provision of secure, effective and timely CPaaS services. In 2024, its revenue derived from cloud-based communications services reached approximately RMB0.7 billion.	CPaaS Service	Listed	1.4%
5	Company D	Founded in 2006 and headquartered in Beijing, Company D is a leading provider of customer contact solutions deployed in public clouds, offering a broad array of communications services that enable enterprises to engage in multi-channel customer interactions. In 2024, its revenue derived from cloud-based communications services reached approximately RMB0.5 billion.	Full-suite Communications Services	Listed	1.0%
Top 5					18.8%

- In terms of revenue derived from cloud-based communications services in 2024, the top five cloud-based communications services providers in China accounted for approximately 18.8%, among which our Group ranked third, with a market share of approximately 1.8%. Among these top five providers, our Group had the second highest net profit in 2024, demonstrating strong profitability.

Source: Annual Reports; Frost & Sullivan Analysis

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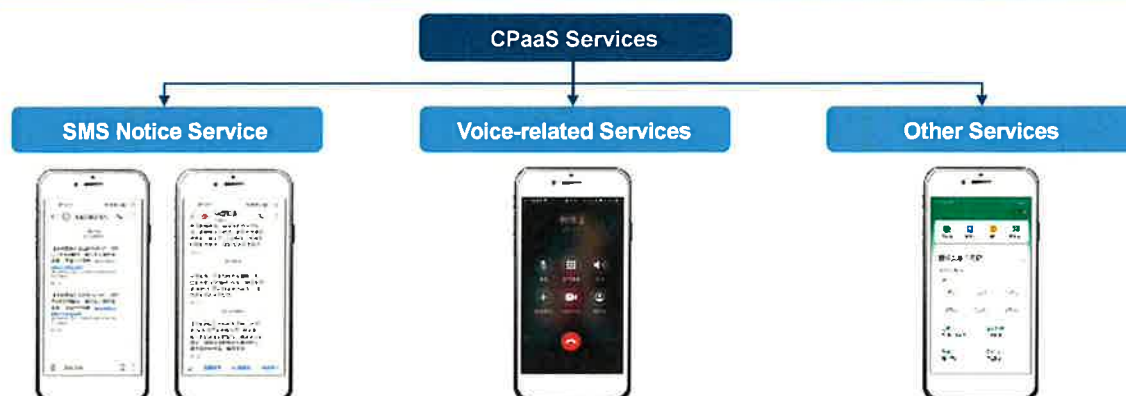
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## Analysis of China's CPaaS Service Market

### Definition and Overview

- Communications platform as a service (CPaaS) refers to a technology delivery model that enable companies to embed omnichannel communication functions into their business systems and applications with APIs or SDKs. CPaaS has prominent advantages for businesses to enhance communication capabilities and customer experience, primarily as (i) CPaaS facilitates integration with existing systems and applications, providing greater agility and flexibility to launch communication functions without having to build the entire infrastructure;(ii) CPaaS eliminates the need for costly telecommunications infrastructure, which reduces development expenses; and (iii) CPaaS integrates various telecommunications resources, which extends reach to end users and offers customized solutions based on customers' needs.
- CPaaS services primarily include: (i) messaging service, which enables customers to send messages to designated mobile numbers; (ii) voice services, which allow customers to build solutions for making and receiving phone calls globally; and (iii) other services, such as mobile data services, IoT SIM card and data, virtual goods top-up, RCS message services, among others.

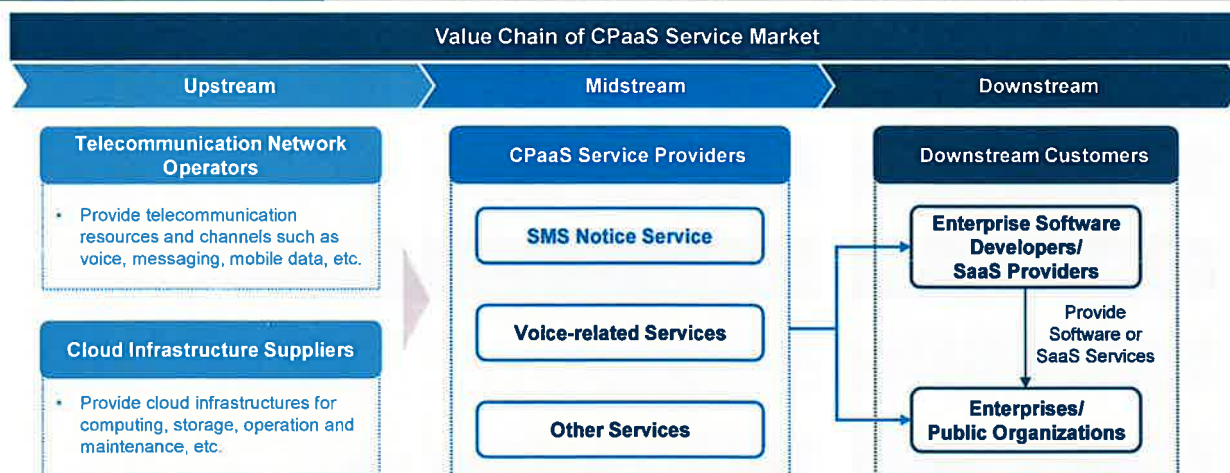
#### Classification of CPaaS Services



Source: Frost & Sullivan Analysis

## Analysis of China's CPaaS Service Market

### Value Chain Analysis



- The value chain of CPaaS service market primarily consists of telecommunications operators and cloud infrastructure suppliers in the upstream, CPaaS service providers in the midstream, and downstream customers including enterprise software developers and SaaS providers, as well as enterprises and public organizations.
- By collaborating with telecommunications operators, CPaaS service providers are able to consolidate telecommunications resources and enable downstream customers to access and utilize their resources via APIs or SDKs, which allows their customers to access and utilize communication capabilities in an easy, efficient and flexible way without incurring enormous costs in establishing and maintaining own communication infrastructure.
- CPaaS service providers can offer communication functions to enterprise software developers and SaaS providers, who then deliver software or platforms to their end customers. In addition, some enterprises and public organizations with relatively strong development capabilities can directly utilize communication functions from CPaaS service providers and embed them into their own business systems and applications. Financial services (includes banking, securities and insurance), logistics, government-related, travel, e-commerce, advertisement and education are the major downstream industries of China's CPaaS service market.

Source: Frost & Sullivan Analysis

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## Analysis of China's CPaaS Service Market

### Analysis of Main Charging Models

- The charging models in China's CPaaS service market primarily include usage-based pricing model and package pricing model. In usage-based pricing model, fees are charged based on the usage of price per unit, such as number of messages, call duration, and amount of data. In package pricing model, fees are charged on a monthly or annual basis, typically including a certain quota for service usage, whilst any usage exceeding the quota is charged based on the amount.

Main Charging Models in China's CPaaS Service Market		
Charging Models	Usage-based Pricing	Package Pricing
<b>Main Features</b>	<ul style="list-style-type: none"> <li>Fees are charged based on the usage of price per unit, such as number of text messages, call duration, and amount of data.</li> </ul>	<ul style="list-style-type: none"> <li>Fees are charged on a monthly or annual basis, typically including a certain quota for service usage. Any usage exceeding the quota is charged based on the amount.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>Payment only needs to be made based on actual usage, suitable for customers with large fluctuations in usage.</li> </ul>	<ul style="list-style-type: none"> <li>Costs are predictable, convenient for budget management, and suitable for customers with stable usage.</li> </ul>
<b>Price Level</b>	<ul style="list-style-type: none"> <li>Relatively high, providing high flexibility without a minimum expenditure requirement.</li> </ul>	<ul style="list-style-type: none"> <li>Relatively low and customers with stable usage can benefit from bulk discounts.</li> </ul>
<b>Applicable Scenarios</b>	<ul style="list-style-type: none"> <li>Small and medium-sized enterprises, startups, or scenarios with uncertain usage.</li> </ul>	<ul style="list-style-type: none"> <li>Medium and large-sized enterprises, with application scenarios that have relatively stable usage.</li> </ul>

Source: Frost & Sullivan Analysis

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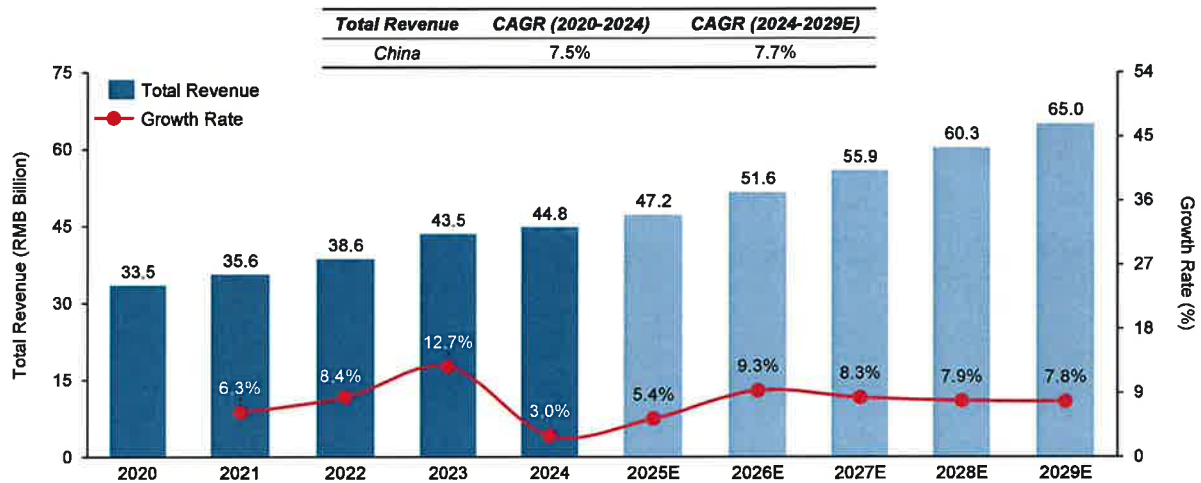
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## Analysis of China's CPaaS Service Market

### Market Size of China's CPaaS Service Market

Total Revenue of CPaaS Service Market (China), 2020 – 2029E



- With the development of cloud communication infrastructure and increasing demand for communication functions from downstream customers, China's CPaaS service market experienced a continuous growth in recent years. From 2020 to 2024, the total revenue of China's CPaaS service market increased from RMB33.5 billion to RMB44.8 billion, growing at a CAGR of 7.5%. In the future, with the further digital transformation of enterprises, the expanding application of cloud communication and the innovative CPaaS services such as RCS messages, China's CPaaS service market is expected to maintain a rapid growth. In 2029, the total revenue of China's CPaaS service market is expected to reach RMB65.0 billion, representing a CAGR of 7.7% from 2024 to 2029.

Source: Ministry of Industry and Information Technology; Frost & Sullivan Analysis

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## Analysis of China's CPaaS Service Market

### Market Drivers

Drivers	Main Content
<b>Supportive Policies</b>	<ul style="list-style-type: none"> <li>In recent years, the Chinese government has continuously introduced policies to support the high-quality development of cloud communication. In 2021, the Ministry of Industry and Information Technology promulgated the "14th Five-Year Plan for the Development of Information and Communication Industry" (《“十四五” 信息通信行业发展规划》), which advocated for the barrier-free transformation and widespread application of information services, stimulating increasing demand for cloud communication. In 2024, the Ministry of Industry and Information Technology issued the "Guidelines for the Construction of Comprehensive Standardization System of Cloud Computing" (《云计算综合标准化体系建设指南》), which encouraged the sustained, rapid and healthy development of cloud computing, laying the technical foundation for the development of China's CPaaS service market. The introduction of these supportive policies promoted the expanding application of cloud communication, thereby facilitating the development of China's CPaaS service market.</li> </ul>
<b>Expanding Downstream Applications of CPaaS Services</b>	<ul style="list-style-type: none"> <li>With growing communication demands from various industries, downstream applications of CPaaS services have extended to industries such as banking, insurance, automotive, e-commerce and the Internet, leading to a continuous increase in downstream demand. Moreover, the services offerings of CPaaS service providers have expanded from traditional messaging and voice services to diversified services such as mobile data and virtual goods services, further driving the continuous growth of the CPaaS service market.</li> </ul>
<b>Technological Advancements</b>	<ul style="list-style-type: none"> <li>In recent years, technological advancements have significantly improved the efficiency and quality of CPaaS services, thereby promoting the development of China's CPaaS service market. For instance, some leading CPaaS service providers have started to utilize LLMs to generate content and review templates for messaging and to conduct quality inspection, which helps their customers further improve communication efficiency.</li> </ul>
<b>Increasing Demand for Corporate Communication</b>	<ul style="list-style-type: none"> <li>In recent years, mobile Internet in China has witnessed a remarkable development. The number of mobile Internet users in China increased from 985.8 million in 2020 to 1,105.0 million in 2024, representing a CAGR of 2.9%, with the penetration rate of mobile Internet growing from 69.8% to 78.5%. By 2029, the penetration rate of mobile Internet in China is expected to reach 90.0%. The growth in number of mobile internet users has continuously enlarged the scale of end users that corporate and public organizations could reach, which has stimulated substantial demand for corporate communications including voice and messaging.</li> </ul>
<b>Advancement of Cloud Infrastructure</b>	<ul style="list-style-type: none"> <li>Cloud infrastructures in China have experienced continuous improvement. Cloud infrastructure, as the foundation of CPaaS services, can ensure the reliability and stability of services through technological advancements. With the enhancing flexibility and scalability of cloud infrastructures, China's CPaaS service providers can further expand the application scenarios as they can offer customized communication functions with flexible deployment and satisfy the demands of large corporate customers for high scalability such as sending millions of messages per minute.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's CPaaS Service Market

### Future Opportunities

Future Opportunities	Globalization of CPaaS Service Capabilities	<ul style="list-style-type: none"> <li>With the continuous advancement of globalization, Chinese enterprises have been accelerating their overseas expansion and exploring international markets. With the increasing demands for CPaaS services in overseas countries, global service capabilities of CPaaS will become one of the main development directions for CPaaS service providers in the future. These providers will establish cooperative relationships with global telecommunications operators to secure global telecommunications resources, which can fulfill the overseas needs of enterprises in cross-border e-commerce, online social networking, logistics, finance, among others.</li> </ul>
	Integration of AI Technology	<ul style="list-style-type: none"> <li>In recent years, artificial intelligence (AI) technology such as large language model and machine learning has experienced a rapid development, and gradually been applied in CPaaS services. By leveraging the capabilities of large-scale AI models, CPaaS services are evolving towards higher level of intelligence, which can provide downstream customers with more efficient and comprehensive communication solutions. For instance, incorporating AI technology into information distribution systems of CPaaS can enable the tagging of information recipients, significantly improving the efficiency of enterprise communication.</li> </ul>
	Increasing Market Concentration	<ul style="list-style-type: none"> <li>With the gradual maturity of China's CPaaS service market, large CPaaS service providers have continuously consolidated their market position through technological innovation, market expansion and resource integration. Moreover, the increasing costs of telecommunications resources may reduce the profitability of CPaaS service providers, especially those small-sized service providers who cannot benefit from scale effect. Therefore, the concentration rate in China's CPaaS service market is expected to continue to increase in the future.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's CPaaS Service Market

### Entry Barriers

Entry Barriers	
Qualification Barrier	<ul style="list-style-type: none"> <li>CPaaS service providers offer communication functionalities to their customers by integrating telecommunications resources, which are subject to stringent regulations. New entrants have to undergo reviews by relevant government departments and obtain necessary licenses, such as the value-added telecommunications services license. It is rather difficult for new entrants to pass the relevant departments' reviews and acquire these qualifications in short time.</li> </ul>
Telecommunication Resource Barrier	<ul style="list-style-type: none"> <li>The service capabilities of CPaaS service providers primarily relies on the integration of upstream telecommunications resources. Leading providers generally establish long-term cooperative relationships with telecommunications operators, and enter into business agreements with provincial branches covering major geographical areas, which can ensure end customers with nationwide business operations to secure comprehensive communication functions. New entrants may face challenges in establishing stable cooperation with telecommunications operators nationwide.</li> </ul>
Technology Barrier	<ul style="list-style-type: none"> <li>Technologies are vital to CPaaS services, which can effectively improve the service efficiency and quality. For instance, online status check and number blocking technologies help to prevent customers from reaching inactive or specific mobile numbers based on data analysis. Established CPaaS service providers have been dedicated to enhancing technological capabilities and developing new technologies to maintain their competitiveness, which is one of major entry barriers for new entrants.</li> </ul>
Customer Resource Barrier	<ul style="list-style-type: none"> <li>Existing participants in China's CPaaS service market typically have extensive customer networks and significant customer loyalty, which are results of their sales and marketing capabilities. They have a deep understanding of customer needs, and can quickly meet these specific needs. Therefore, relatively durable partnerships are established between CPaaS service providers and their customers, and they usually are not easily replaced.</li> </ul>

Source: Frost & Sullivan Analysis

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# Analysis of China's CPaaS Service Market

## Ranking and Market Share

China's Top Five CPaaS Service Providers By Revenue, 2024

Ranking	Company	Background Information	Listing Status	Market Share (%)
1	Company A	Founded in 2001 and headquartered in Shenzhen, Company A is one of the leading CPaaS service providers in China, with major businesses including enterprise cloud-based communication platforms. In 2024, its revenue derived from CPaaS services reached approximately RMB3.9 billion.	Listed	8.7%
2	Company B	Founded in 1999 and headquartered in Suzhou, Company B is one of the leading CPaaS service providers in China, with clients and partners in various industries such as communications, bank, logistics, retail, Internet, media, public services, among others. In 2024, its revenue derived from CPaaS services reached approximately RMB3.4 billion.	Listed	7.6%
3	Our Group	See "Business"	-	1.8%
4	Company C	Founded in 2012 and headquartered in Wuxi, Company C is one of the leading enterprises focusing on the provision of secure, effective and timely CPaaS services. In 2024, its revenue derived from CPaaS services reached approximately RMB0.7 billion.	Listed	1.6%
5	Company E	Founded in 2010 and headquartered in Guangzhou, Company E is a comprehensive intelligent CRM services providers capable of providing CPaaS services and contact center SaaS services. In 2024, its revenue derived from CPaaS services reached approximately RMB0.4 billion.	Listed	0.9%
Top 5				20.6%

- As of December 31, 2024, there were approximately 400 CPaaS service providers in China. In terms of revenue derived from CPaaS services in 2024, the top five CPaaS service providers in China accounted for approximately 20.6%, among which our Group ranked third, with a market share of approximately 1.8%.

Source: Annual Reports; Frost & Sullivan Analysis

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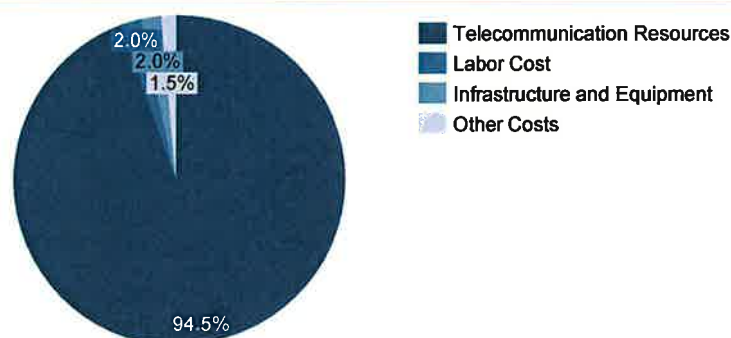
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# Analysis of China's CPaaS Service Market

## Cost Structure Analysis

Cost Structure of CPaaS Service Market (China), 2024



- The costs of CPaaS service market primarily include cost of telecommunications resources, labor cost, cost of infrastructure and equipment and other costs, among which cost of telecommunications resources accounted for approximately 94.5% of the total cost in China's CPaaS service market in 2024. Labor cost and cost of infrastructure and equipment accounted for approximately 2.0% and 2.0%, respectively.
- The cost of telecommunications resources dominates the cost composition of CPaaS service providers. On one hand, CPaaS service providers have high dependency on telecommunications operators to aggregate telecommunications resources, and on the other, CPaaS service providers have relatively limited autonomy in cost control mainly as the pricing of telecommunications resources may have direct impact on their operating costs and profitability.
- It is an industry norm for CPaaS service providers to make advance payments to telecommunication resource providers to ensure that they can obtain sufficient telecommunication resources. Additionally, it is not uncommon for telecommunications resource providers to issue refunds after CPaaS service providers make payments due to insufficient resources. It is not uncommon for small-sized suppliers of telecommunications resources to go out of business. These small-sized suppliers heavily rely on their relationships with the three major telecommunications operators. As market competition intensifies, if they are unable to establish stable partnerships with these operators, they may quickly go out of business.

Source: Frost & Sullivan Analysis

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## Analysis of China's Contact Center SaaS Market

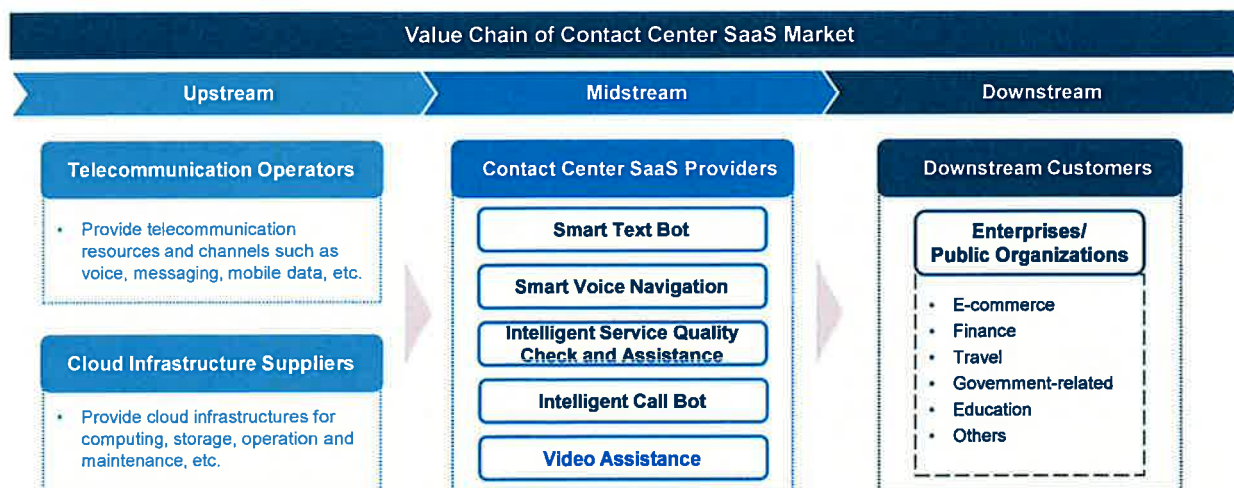
### Market Definition and Overview

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- Contact Center SaaS refers to an efficient and intelligent contact center solution provided to corporate and public organizations with SaaS as the main deployment method. Contact Center SaaS solutions primarily include various intelligent functions applied in contact center, such as smart text bot, smart voice navigation, intelligent service quality check and assistance, intelligent call bot and video assistance, which can fully satisfy the diversified customers' needs for business consultation, after-sales service, marketing and promotion, sales management, among others. Contact Center SaaS can enable enterprises to reduce the operating costs, improve the qualities of customer services and enhance competitiveness.
- Contact Center SaaS providers primarily charge software deployment fee and communication service fee, among which software deployment fee covers the cost of integrating Contact Center SaaS into customers' IT systems, and varies depending on the number of AI customer representatives the customers purchase and the specific functions they require to employ; and communication service fee is based on the duration of the call, which depends on the usage of voice services within the Contact Center SaaS. The charging models for software deployment fee depend on different deployment methods. For public cloud deployment, the pricing model for software deployment is generally based on the number of AI customer representatives and the specific functions to employ, whilst for private cloud deployment, Contact Center SaaS providers generally charge the total solution as a sales package, based on the overall costs and the customers' needs during the bidding or commercial negotiations. Moreover, the charging models for communication service fee in Contact Center SaaS are similar to those for CPaaS services, generally based on the call duration, multiplying the price per unit.
- As of December 31, 2024, there were approximately 400 Contact Center SaaS providers in China. In terms of revenue derived from Contact Center SaaS in 2024, the top five Contact Center SaaS providers in China accounted for approximately 15.1%. Our Group ranked sixth, with a market share of approximately 1.3%.

# Analysis of China's Contact Center SaaS Market

## Value Chain Analysis



- The value chain of Contact Center SaaS market primarily consists of telecommunications operators and cloud infrastructure suppliers in the upstream, Contact Center SaaS providers in the midstream, and downstream customers including enterprises and public organizations.
- Upstream participants including telecommunications operators and cloud infrastructure suppliers are crucial, among which telecommunications operators provide basic infrastructure and channel to Contact Center SaaS service providers.

Source: Frost & Sullivan Analysis

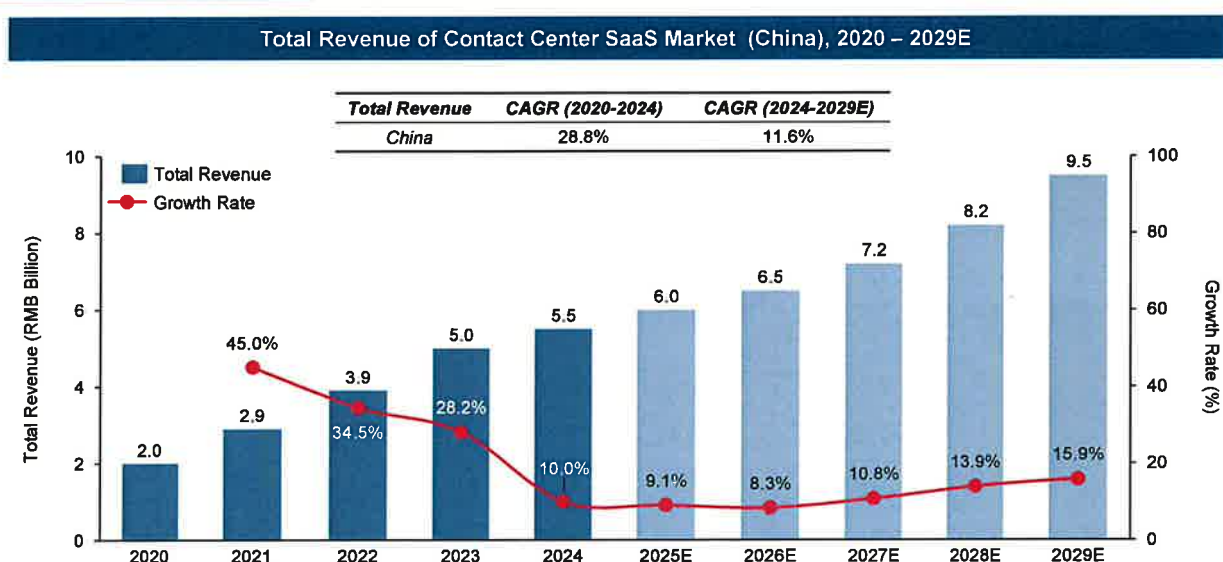
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# Analysis of China's Contact Center SaaS Market

## Market Size of China's Contact Center SaaS



- Driven by further improvement of laws and regulations, growing requirements for response speed of customer services and continuous technological development, China's Contact Center SaaS market experienced a significant growth in recent years. From 2020 to 2024, the total revenue of China's Contact Center SaaS market increased from RMB2.0 billion to RMB5.5 billion, growing at a CAGR of 28.8%. In the future, the total revenue of China's Contact Center SaaS market is expected to reach RMB9.5 billion in 2029, representing a CAGR of 11.6% from 2024 to 2029.

Source: Frost & Sullivan Analysis

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## Analysis of China's Contact Center SaaS Market

### Market Drivers

Drivers	Main Content
<b>Further improvement of laws and regulations</b>	<ul style="list-style-type: none"> <li>Contact centers involve the collection and usage of a large amount of user information. With the increasing national emphasis on citizens' information security, a series of laws and regulations, such as the "Interim Measures for the Management of Generative Artificial Intelligence Services" (《生成式人工智能服務管理暫行辦法》), the "Personal Information Protection Law" (《個人信息保護法》) and the "Notice on Strengthening Call Center Business Management" (《關於加強呼叫中心業務管理的通知》) have been issued, aiming to regulate the industry development and protect the rights and interests of end users and service providers.</li> </ul>
<b>Growing requirements for response speed of customer services</b>	<ul style="list-style-type: none"> <li>End users have growing requirements for the immediacy and responsiveness of services. Traditional contact centers are limited by human resource allocation and service duration, and are unable to provide real-time customer services around the clock. Contact Center SaaS can respond to consumers' needs in a timely manner, intelligently answer some repetitive and structural questions, shorten the waiting time and optimize the experience of customer services.</li> </ul>
<b>Continuous technological development.</b>	<ul style="list-style-type: none"> <li>The deep integration of technologies such as cloud computing and AI with contact centers further enhanced the intelligence level of contact centers. Contact Center SaaS utilizes general and specific LLMs to assist manual customer services through smart text bot, smart voice navigation, intelligent service quality check and assistance, among others, which not only reduces the costs in human resources, but also improves the response efficiency. With the continuous technological development, Contact Center SaaS are transforming towards AI-driven digital operations, and continuously expanding their service scope, which drives the growth of China's Contact Center SaaS market.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's Contact Center SaaS Market

### Future Opportunities

<b>Future Opportunities</b>	<b>Data security</b>	<ul style="list-style-type: none"> <li>Data security is an important development direction for China's Contact Center SaaS market. As customers' concern for data security continues to rise, Contact Center SaaS providers have been dedicated to strengthening the protection of customer data and providing data security guarantees according to the diverse customers' needs. For instance, Contact Center SaaS providers offer the cloud deployment through private cloud or virtual private cloud for customers who are more sensitive to data security.</li> </ul>
	<b>Synergistic development with manual customer service</b>	<ul style="list-style-type: none"> <li>The application of Contact Center SaaS has become a new trend in customer service. AI technology will continue to have widespread and deep application in Contact Center SaaS. Meanwhile, Contact Center SaaS will combine with manual customer service representatives to establish a synergistic mechanism to provide end users with a better service experience. AI technologies such as machine learning will enable manual customer service representatives to acquire the information and solutions they need quickly, thereby effectively improving customer satisfaction.</li> </ul>
	<b>Integration of multiple channels</b>	<ul style="list-style-type: none"> <li>Contact Center SaaS providers need to provide multiple communication channels, such as messaging, voice, email, social media, among others, to provide comprehensive solutions of Contact Center SaaS. The integration of multiple channels also enables Contact Center SaaS providers to offer customized solutions tailored to specific customers' needs.</li> </ul>

Source: Frost & Sullivan Analysis

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## Analysis of China's Contact Center SaaS Market

### Entry Barriers

#### Entry Barriers

##### Brand Barrier

- It is crucial to establish brand reputation and obtain customer trust in technical capabilities, data security and privacy protection in China's Contact Center SaaS market. Brand reputation requires long-term accumulation by providing high-quality solutions and superior customer experience. New entrants need to invest a lot of time and resources to obtain customer trust and establish brand reputation to have sufficient customer bases.

##### Technology Barrier

- Contact Center SaaS market involves various advanced technologies, such as software development, communications, cloud computing, among others. The development and integration of such technologies requires the accumulation of profound professional expertise and sufficient experience. It is difficult for new entrants to master these core technologies to ensure high efficiency and reliability of services in a short time. In addition, continuous technological improvement is required to fulfill the growing requirements from downstream customers.

##### Talent Barrier

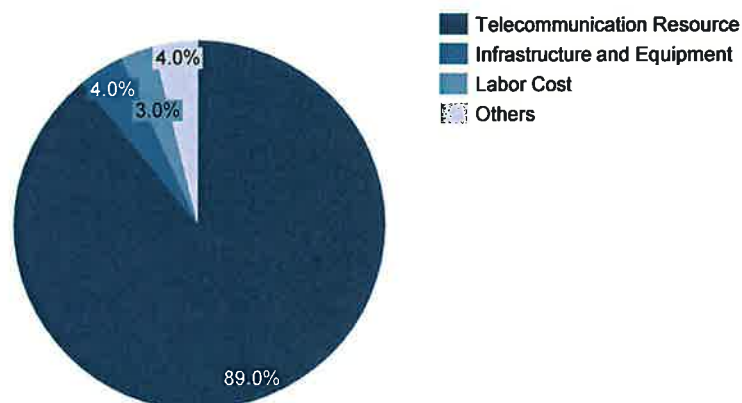
- Talent is one of the key factors to enter China's Contact Center SaaS market. These talents are able to integrate multiple advanced technologies to provide efficient and intelligent contact center solutions with an in-depth industry understanding. Attracting and retaining these talents is a challenge for new entrants. Moreover, established enterprises generally have sufficient talent reserve and effective training mechanisms, which enable them to better cultivate and maintain a professional talent team.

Source: Frost & Sullivan Analysis

## Analysis of China's Contact Center SaaS Market

### Cost of China's Contact Center SaaS

#### Cost Structure of Contact Center SaaS Market (China), 2024



- The costs of Contact Center SaaS market primarily include cost of telecommunications resource, infrastructure and equipment, labor cost, and other costs, among which cost of telecommunications resource accounted for approximately 89.0% of the total cost in China's Contact Center SaaS market in 2024. Infrastructure and equipment and labor cost accounted for approximately 4.0% and 3.0%, respectively. Cost of telecommunications resource, consisting of expenses relating to voice services, Internet broadband, and dedicated leased lines, dominates the cost composition of Contact Center SaaS providers.

Source: Frost & Sullivan Analysis

- 1 Analysis of China's Cloud-based Communications Services Market
- 2 Analysis of China's CPaaS Service Market
- 3 Analysis of China's Contact Center SaaS Market
- 4 Analysis of China's Project-based Communication Solution Market
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## Analysis of China's Project-based Communication Solution Market

### Definition and Overview

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- Project-based communications solutions refer to the provision of communication-based solutions that combine software and hardware, with the integration of advanced technologies such as cloud computing, IoT and AI. Project-based communications solutions leverage high scalability and flexibility of cloud technology to provide comprehensive communication capabilities for corporate and public organizations, and realize functions such as intelligent voice recognition, facial recognition and behavioral monitoring, thereby providing intelligent solutions based on communication capabilities.
- Project-based communications solutions have widespread application scenarios, primarily including smart campuses, smart municipal governance, smart transportation and smart finance. When selecting project-based communications solutions, downstream industries will consider their compatibility with existing systems, service stability and reliability, level of intelligence and cost-effectiveness. In addition, the project-based communications solutions should be able to meet the specific industry needs and support future expansion and upgrading.
- China's project-based communication solution market is highly fragmented with plenty of market participants primarily including technology service providers, equipment manufacturers, and product and solution providers. Our Group primarily competes with product and solution providers.

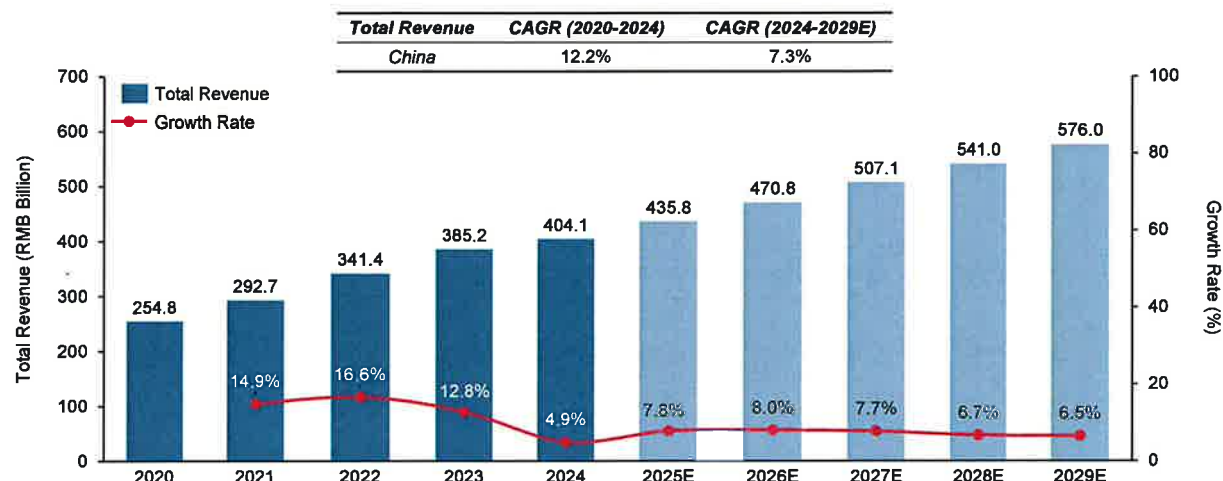


Source: Frost &amp; Sullivan Analysis

# Analysis of China's Project-based Communication Solution Market

## Market Size of China's Project-based Communication Solution Market

Total Revenue of Project-based Communication Solution Market (China), 2020 – 2029E



- Driven by the increasing demand for digital transformation and the innovative applications of project-based communications solutions, the total revenue of China's project-based communications solutions market increased from RMB254.8 billion in 2020 to RMB404.1 billion in 2024, growing at a CAGR of 12.2%. In the future, with the integration of advanced technologies such as cloud computing, AI and IoT, project-based communications solutions providers can offer comprehensive solutions to empower communication capabilities in smart cities, which is expected to promote the stable growth in China's project-based communications solutions market. In 2029, the total revenue of China's project-based communication solution market is expected to reach RMB576.0 billion, with a CAGR of 7.3% from 2024 to 2029.

Source: Ministry of Industry and Information Technology; Frost & Sullivan Analysis

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# Analysis of China's Project-based Communication Solution Market

## Market Drivers

Drivers	Main Content
<b>Technological Innovation</b>	<ul style="list-style-type: none"> <li>Technological innovation is a key driving force for the development of project-based communication solution market. The rapid development of technologies, including 5G, IoT, AI, big data, and cloud native, provides strong technical support for project-based communication solutions. For instance, AI is used in voiceprint recognition, image recognition and motion recognition, which enables the monitoring and analysis of user behaviors, thereby improving the intelligence level of communication solutions. Moreover, the combination of these technologies can lead to more application scenarios of cloud communication. Therefore, technological innovation not only greatly expands the application scope, but also significantly enhances user experience.</li> </ul>
<b>Demand for enterprise digital transformation</b>	<ul style="list-style-type: none"> <li>In the wave of digital economy, the digital transformation of enterprise office modes, as well as management and business models has become an inevitable trend, facilitating the rapid development of project-based communication solution market. For instance, with the increasing popularity of remote work and collaboration, the audio and video conferencing function in cloud communication platform has become an indispensable tool for daily operation of enterprises. Along with the evolving enterprises' needs, project-based communication solutions will play a more critical role in enterprise digital transformation.</li> </ul>
<b>Innovation in product and service models</b>	<ul style="list-style-type: none"> <li>With the continuous technological improvement and growing customers' requirements, project-based communication solution providers have to innovate their product features and delivery methods to maintain competitiveness. For instance, AI technology is applied to provide intelligent customer services and automated workflows. The innovation in service model can be reflected in providing more flexible subscription options, on-demand services, and service models that are easy to deploy and expand, in order to adapt to enterprises with different sizes and needs.</li> </ul>

Source: Frost & Sullivan Analysis

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# Analysis of China's Project-based Communication Solution Market

## Entry Barriers

### Entry Barriers

#### Expertise and Innovation

- Project-based communication solutions involve the integration of multiple disciplines such as cloud computing, communication technology, AI. It is crucial for enterprises to have a team composed of innovative professionals, and new entrants may face challenges in accumulating industry experience and recruiting professionals.

#### Capital

- Sufficient capital is a key factor for the sustainable development of project-based communication solution market. In the initial stage, enterprises need to invest a large amount of financial resources. In the development stage, sufficient financial support is equally important for market promotion, brand building, and customer relationship maintenance, which helps enterprises to expand market shares, enhance brand reputation, and establish a solid customer base.

#### Ecosystem Construction

- Ecosystem construction requires enterprises to not only integrate a wide range of resources, including infrastructure, technology platforms, developer tools and industry applications, but also cultivate stable partner network. This process requires substantial experience accumulation and strategic coordination to ensure solutions and related services can meet diverse needs across different industries, thereby increasing user stickiness.

Source: Frost & Sullivan Analysis

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## Content

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## Appendix Relating to the Company

- We were one of the first providers of cloud-based communications services in China, according to F&S. We are one of the few providers in China capable of delivering AI-driven communications services, according to the same source.
- According to the F&S Report, the total revenue of China's cloud-based communications services market in 2024 amounted to RMB50.3 billion, comprising China's CPaaS service market of RMB44.8 billion and China's Contact Center SaaS market of RMB5.5 billion. From 2020 to 2024, the total revenue of China's cloud-based communications services market increased from RMB35.5 billion to RMB50.3 billion, growing at a CAGR of 9.1%. In 2029, the total revenue of China's cloud-based communications services market is expected to reach RMB74.5 billion, representing a CAGR of 8.2% from 2024 to 2029. We ranked third in China's cloud-based communications services market measured by revenue in 2024, with a market share of approximately 1.8%. Among the top five providers, we had the second highest net profit in 2024.
- It is common practice for cloud-based communications service providers like us to procure telecommunication services from other cloud-based communications service providers, according to F&S.
- According to the Notice on Issuing the Supporting Implementation Rules (Trial) for the Operation and Access Management of Port-Type Short Message Services (《關於印發〈端口類短信息服務經營行為及接入管理配套實施細則(試行)〉的通知》) promulgated by MIIT on 26 September 2023, all SMS messages must comply with filing and management requirements, including real-name registration. According to F&S, such trial practices were not widely adopted in the industry until March to April 2025.
- We have built a full suite of cloud-based communications capabilities because, according to F&S, compared to our competitors with single service capability, we can offer multiple, integrated telecommunications resources and multiple delivery channels that cater to the growing and increasingly diverse communication needs of private and public organizations.
- Our CPaaS services can handle up to 100,000 messages and calls concurrently in a single second, satisfying the demands of large corporate customers. According to F&S, our concurrency capability is higher than the industry average.
- According to the F&S Report, most players in China's cloud-based communications market primarily rely on voice or messaging resources. However, there are a limited number of players offering services that provide messaging, voice and mobile data capabilities simultaneously.
- The market size for cloud-based communications services in China grew from RMB35.5 billion in 2020 to RMB50.3 billion in 2024 and is expected to reach RMB74.5 billion by 2029, according to F&S.
- According to F&S, as of December 31, 2024, there were approximately 800 cloud-based communications services providers in China.

## Appendix Relating to the Company

- According to the F&S Report, from 2020 to 2024, the revenue of CPaaS service market in Southeast Asia increased from RMB6.4 billion to RMB9.5 billion, growing at a CAGR of 10.4%. In 2029, the revenue of CPaaS service market in Southeast Asia is expected to reach RMB14.5 billion, representing a CAGR of 8.8% from 2024 to 2029. From 2020 to 2024, the revenue of Contact Center SaaS market in Southeast Asia increased from RMB0.3 billion to RMB0.9 billion, with a CAGR of 31.6%. In the future, with the growing demand for smart contact center in finance and IT industries, the revenue of the Contact Center SaaS market in Southeast Asia is expected to maintain rapid growth and reach RMB1.6 billion in 2029, growing at a CAGR of 12.2% from 2024 to 2029. The reasons for expected market growth of CPaaS services and Contact Center SaaS markets in Southeast Asia primarily include: (i). the sustainable economic growth and accelerated digital transformation in Southeast Asia have brought broad development opportunities for cloud-based communications services. The nominal GDP in Southeast Asia is expected to reach USD5.3 trillion in 2029, growing at a CAGR of 6.0% from 2024 to 2029, whilst the foreign direct investment in Southeast Asia is expected to reach USD463.3 billion in 2029, growing at a CAGR of 11.9% from 2024 to 2029. Economic growth and digital transformation have promoted the development of many industries in Southeast Asia, such as e-commerce, tourism and financial services, which stimulates robust demand for cloud-based communications services; (ii). many countries in Southeast Asia have released and implemented a series of policies to encourage the development of cloud computing, AI and big data, which facilitates the advancement of cloud infrastructure as an important foundation of cloud-based communications services. For instance, the Ministry of Trade in Indonesia issued the "2021-2024 Indonesia Digital Roadmap", which calls on all Indonesians to enhance professional skills in areas such as cloud computing, and encourages the technological innovation of cloud computing related enterprises; and (iii). the penetration rate of Internet in Southeast Asia increased from 59.8% in 2020 to 76.6% in 2024, which provides a large potential user base for cloud-based communications services market in Southeast Asia.
- The total revenue of cloud-based communications services markets in Indonesia, Malaysia and Vietnam are expected to reach approximately RMB5.6 billion, RMB1.6 billion and RMB1.7 billion in 2029, growing at a CAGR of 7.5%, 7.8% and 5.5% from 2024 to 2029, respectively.
- The CPaaS services markets in Indonesia, Malaysia and Vietnam are relatively fragmented. There are approximately 100, 80 and 50 market participants in the CPaaS services market in Indonesia, Malaysia and Vietnam, respectively. The market participants in the CPaaS services markets in Indonesia, Malaysia and Vietnam can be mainly categorized into international CPaaS services providers and local CPaaS services providers, among which international CPaaS services providers have a higher market share in Indonesia, Malaysia and Vietnam due to their early market entry and mature technologies, while local CPaaS services providers have relatively weaker competitiveness due to their limited capabilities to meet large-scale demands. In recent years, some CPaaS services providers in China have also started to expand their business layout in Southeast Asia's markets, gaining a certain market share in the CPaaS services market in Indonesia, Malaysia and Vietnam.
- The development of Contact Center SaaS market in Southeast Asia is at an emerging stage. There are approximately 50, 30 and 20 market participants in the Contact Center SaaS markets in Indonesia, Malaysia and Vietnam, respectively. The market participants in the Contact Center SaaS markets in Southeast Asia can be mainly categorized into international Contact Center SaaS providers and local Contact Center SaaS providers, among which the Contact Center SaaS providers in China can have competitive advantages in Southeast Asia due to strong technological capabilities and competitive prices.

## Appendix Relating to the Company

- According to F&S, it is the industry norm for global telecom operators to classify enterprise customers with annual spending over USD500,000 as key.
- According to F&S, our levels of prepayments are not uncommon in China's cloud-based communications services market.
- According to F&S, the pricing methodology we adopted, specifically the price determination process based on usage and volume, is a clear driver and a common practice for determining the price.
- According to F&S, China's cloud-based communications services market has experienced continuous growth in recent years. From 2020 to 2024, the total revenue of China's cloud-based communications services market increased from RMB35.5 billion to RMB50.3 billion, growing at a CAGR of 9.1%. China's cloud-based communications services market is relatively fragmented with intense competition. Depending on their different service capabilities and main business, China's cloud-based communications services providers can be primarily divided into (i) providers with single service capability, who focus on a specific type of cloud-based communications services, such as CPaaS services or Contact Center SaaS; and (ii) full-suite communications services providers, who offer comprehensive cloud-based communications services covering both CPaaS services and Contact Center SaaS. We face competition from both types of cloud-based communication services providers.
- According to F&S, the total market size of China's project-based communications solutions market increased from RMB254.8 billion in 2020 to RMB404.1 billion in 2024, growing at a CAGR of 12.2%. China's project-based communications solutions market is highly fragmented with plenty of market participants primarily including technology service providers, equipment manufacturers, and product and solution providers.
- According to F&S, it is a common and reasonable business practice in China for large corporate enterprises to designate other affiliated companies within their group to make payments in the normal course of business.
- According to F&S, public sector customers who have no paying authorization or capabilities are required to pay through designated treasury centers.
- According to the F&S, market drivers of China's CPaaS services include technological advancement and increasing demand for corporate communication. Market drivers of China's Contact Center SaaS include growing requirements for response speed of customer services and continuous technological development.
- According to F&S, in light of market conditions in 2024, our major customer group, including many technology service providers, software and information technology companies, and telecommunications operators, has prolonged their payment terms to improve their cash flow, further affecting their payment cycles.
- According to the F&S Report, one of the market drivers is the deep integrations of technologies such as cloud computing and AI. They may enhance the intelligence level of contact centers. Contact Center SaaS utilizes general and specific LLMs to assist manual customer services through smart text bot, smart voice navigation, intelligent service quality check and assistance, among others, which reduces the costs in human resources and improves the response efficiency.

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## Abbreviations and Terms

### Abbreviations and Terms

- **CAGR:** compound annual growth rate
- **GDP:** gross domestic product
- **R&D:** research & development
- **RMB:** Renminbi, the lawful currency of the PR

### Limitations in Source of Information

- Interviews with end-users, vendors and distributors are conducted to collect information for this report, based on a best-efforts basis.
- Frost & Sullivan will not be responsible for any information gaps where interviewees have refused to divulge confidential data or figures.
- In instances where information is not available, figures based on similar indicators combined with Frost & Sullivan in-house analysis will be deployed to arrive at an estimate.
- Frost & Sullivan will state the information sources at the bottom right-hand corner of each slide for easy reference.

### Note to Numeric Calculations

- Value and percentage figures in this report are all rounded. Figures may not add up to the respective totals owing to rounding.
- The base year is 2024. The historic period is from 2020 to 2023. The forecast period is from 2025 to 2029.

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- Frost & Sullivan is an independent global consulting firm, which was founded in 1961 in New York. It offers industry research and market strategies and provides growth consulting and corporate training. Its industry coverage in the PRC includes automotive and transportation, chemicals, materials and food, commercial aviation, consumer products, energy and power systems, environment and building technologies, healthcare, industrial automation and electronics, industrial and machinery, and technology, media and telecom.
- The Frost & Sullivan's report includes analysis of China's cloud-based communications services market, analysis of China's CPaaS service market, analysis of China's Contact Center SaaS market, analysis of China's project-based communication solutions market, among others.
- The market research process for this study has been undertaken through detailed primary research which involves discussing the status of the industry with leading industry participants and industry experts. Secondary research involved reviewing company reports, independent research reports and data based on Frost & Sullivan's own research database.
- Projected total market size was obtained from historical data analysis plotted against macroeconomic data as well as specific related industry drivers.
- Frost & Sullivan's report was compiled based on the below assumptions:
  - China's economy is likely to maintain steady growth in the next decade;
  - China's social, economic, and political environment is likely to remain stable in the forecast period;
  - Market drivers like stable development of communication infrastructure, accelerated cloud migration, strong downstream demand for improving communication capabilities, among others;
  - The COVID-19 is likely to affect the stability of China's macro economy in short term.