IDC: ICT Market Opportunities Arise Amid Headwinds as Digital Transformation Becomes New Normal

BEIJING, April 22, 2020 — "Changing Customer Requirements: Creating Value in the Digital Economy, International Data Corporation (IDC)'s Directions annual flagship event for China's ICT Market, was held from April 09 to April 17, bringing together 1,500 people from more than 630 corporate organizations in a video conference amid the COVID-19 pandemic.

During the four-day virtual conference, attendees discussed how corporate organizations could identify new opportunities in markets disrupted by the pandemic and drive business growth in China and worldwide by leveraging technology and accelerating business digital transformation.

"In this era of multiplied innovation, technology is increasingly intertwined with everyday life as innovation keeps advancing and disrupting the existing norms and unlocking new possibilities," said Ms. Kitty Fok, Managing Director, IDC China. "IDC predicts that by 2024, 51% of the worldwide IT budget and 70% of that in China will be spent on digital innovation/transformation. The implications for every business are massive. Digital-first will be at the core of business transformation as the digital economy progresses, and companies will face new, more daunting challenges from huge changes taking place in the global macro environment due to the COVID-19 pandemic. Companies can deliver more value by adopting digital-first business models that enable 'ultra-fast speed, ultra-high scale and ultra-wide connections.'"

Below are some highlights of the conference.

Future of the Digital Economy Session: Digital-first a way to future-proof business

IDC introduced the concept of the "future enterprise", which encompasses nine dimensions. These are the future of: customers and consumers, operations, trust, intelligence, digital innovation, work, digital infrastructure, connectedness, and industries.

In today's ICT market, technology has become an integral and inseparable part of business. All the nine dimensions of the future enterprise highlight the core role of technology in driving business innovation and development and demonstrate the need for a digital-first operations strategy for building a future enterprise. They also underscore new capabilities expected of the future enterprise. These capabilities cover: customers, the organization, technology and the ecosystem.

To be prepared for future challenges and capture post-pandemic opportunities, companies are advised to boost their strengths across the nine dimensions.

Moreover, to seize new business opportunities arising from the post-pandemic process of digital transformation, technology vendors must be fully equipped to help customers create value. To do that, they need to:

Become innovation enablers for industry users by providing them with knowledge and experience;

Become trusted advisors aligned with customers' vision and values;

Be critically minded and able to help customers navigate real-world complexities and grow with them in the process of innovation; and

Possess new technology gateways that integrate technologies required by customers and, on this basis, provide complete sets of solutions.

"The COVID-19 pandemic has impacted the ICT market as well as the global economy," said Mr. Lianfeng Wu, Vice President and Chief Analyst, IDC China. "However, there many new business opportunities are emerging from the current crisis. IDC predicts that 10 pandemic-related ICT segments will present business opportunities worth over RMB1.5 trillion in 2020. Companies should maintain a positive mindset; foster remote working capabilities and habits; enhance online marketing and customer services; and perform effective assessments of their digital transformation roadmaps. Finally, they are advised to clarify their brand positioning as they push their digital transformation agenda, build robust partnerships with a strategic vision, and strive to become new species of enterprise while tapping new business opportunities from the accelerating demand for business digital transformation."

Consumer Device Market
Research Session: Post-pandemic
challenges and opportunities

Despite the enterprise market
slump caused by the COVID-19
outbreak, the retail market for
products such as PCs, tablets,
and printers did not decline.
It even posted high growth in
e-commerce sales, driven by
students, employees working from
home, and gamers, found IDC's
survey in February. IDC expects
new business opportunities to
continue emerging because of
changing consumer behavior,
methods of interaction, and
work patterns, and new product
launches.

China's smart home market
provides opportunity to streak
ahead

China's smart home market will
likely grow 3% YoY in 2020, IDC
forecasts, lower than expected
due to challenges on diverse
fronts including market size,
channel expansion, ecosystem
development, and advances in
sensor and interactive technology.

While the overall smart home
market has slowed, it is good
time for Chinese vendors to
differentiate themselves in
application scenarios, marketing
and interactive capabilities, which
would boost their competitive
position in the coming growth
phase and outrun their rivals.

Future of customers — Insights into smart consumer devices

The rise of digital lifestyles is shaping a new consumption era marked by more complicated consumer behavior, higher consumer expectations, and wider consumer choices. Meanwhile, evolving application scenarios are prompting more diversified demands for products and services. Work-life integration requires vendors to enable digital transformation for key scenarios and improve user experiences. In addition, brands need to identify effective ways to improve user experience and engagement based on consumer insights and brand identities in order to achieve the dual success of both brand growth and value delivery.

Smart displays' increasing importance in the digital age

As digital transformation deepens, an increasing number of users have realized the importance of data and its presentation. IDC introduced the concept of the "future of work" three years ago when it offered an outlook on it from three perspectives of space, corporate culture, and staff (workforce). Against this backdrop, displays are becoming increasingly important as users transition from traditional physical surfaces, such as paper, to digital displays. IDC coined the term

"panel to everything" to describe the devices that meet this demand.

Session for emerging technologies: Innovation, integration keys to capturing business opportunities

IDC defines AI, 5G, blockchain, next-generation security, IoT and autonomous driving as emerging technologies. With new post-pandemic digital infrastructure policies on the horizon, many companies will focus on how to cope with the challenges and identify more opportunities in the emerging technology market.

Future of intelligence: Scale, depth and inclusiveness

On the one hand, new infrastructure will support the construction of AI projects; on the other, the pandemic will stimulate a leap forward in the data intelligence market with companies across industries comprehensively adopting AI applications. Driven by these forces, the AI market is worthy of reevaluation for its opportunities: there are still vast gaps yet to be filled for extensive technologies ranging from computer vision and natural language processing to speech recognition and machine learning.

IDC forecasts that, by 2025, AI-driven companies will achieve improved productivity across the board as well as shorter response

time, greater product innovation success rates, and better customer satisfaction. Outstanding value addition will belong to enterprises capable of delivering solutions fit for the coming digital economy. To embrace the future of intelligence, companies need to integrate DataOps (for improved data utilization), ModelOps (for collaborative lifecycle management of algorithm models), and DevOps (for acceleration of large-scale intelligence).

Future of connectedness: 5G unlocks new opportunities

IDC predicts that worldwide cellular IoT connections will grow to 13.76 billion by 2024, driving fast-expanding IoT technology. As an important component of the future of connectedness, 5G will serve as the infrastructure for universal connectivity and drive the profound transformation of industries. China is undergoing an explosive stage of digitalization. Meanwhile, 5G will also hold an important position in the development of new infrastructure. In 2020, 5G will first find commercial applications in sectors including government, healthcare, manufacturing, media, and transportation, where it will accelerate digital transformation and provide unprecedented user experiences.

Future of trust: building digital trust

IDC predicts that the collective sum of the world's data will grow to 175 zettabytes by 2025. New infrastructure will provide major support for China's sound economic growth and fuel its digital transformation. Looking forward, there will be more than seven million edge computing nodes globally and the complexity of IT systems will increase exponentially. Based on previous experience, the IT environment, underpinned by new infrastructure, will face more security challenges than ever. In the unfolding digital world, building digital trust will become a strategic priority for companies as it holds the key to business development. Given that trust is built on assured security, network securities technologies will also undergo disruptive changes in order to adapt to new IT architectures.

Future of trust: Blockchain 101

The future of trust will be complex and center on risk, security, compliance, ethics, social responsibility and privacy. Blockchain has become a representative enabling technology of new infrastructure and it is also key to building trust. Presently, technical constraints, insufficient understanding and limited application scenarios are the main challenges hindering blockchain technology from progressing from conceptual model validation to large-scale

applications. To move forward, blockchain technology providers need to make breakthroughs in terms of technology, conception, and application scenarios. To do this they need to:

Make breakthroughs in blockchain technology per se and its integration with other IT technologies;

Adopt a user's perspective on the technology's application potential and answer users' core questions of why they should embrace blockchain; and

Explore blockchain applications in real-world scenarios in specific industries, especially in applications and sectors offering more promising potential such as trade, finance, automatic securities trading, cross-border payments and settlement, government and livelihoods.

IDC forecasts that total expenditure in China's blockchain market will reach US$1.72 billion by 2023.

Session for enterprise market research: Developers need to leverage new technologies to deliver value

The COVID-19 outbreak has focused attention on the important role of digital transformation in supporting business development by ensuring business continuity. Digital transformation 2.0 will

be based on the infrastructure architecture of data centers. This architecture will undergo changes with the advancement of digital transformation, leading to changes in the operations of data centers and the cloud model, which are encapsulated in the concept of the future of operations. There is also a need for better connectivity to facilitate the integration of and synergy between edge IT and OT. The future of connectedness is not only about 5G technology but also about many other new technologies and applications that will emerge with the development of corporate IT networks. The most important purpose of embracing digital transformation 2.0 is for firms to position themselves to leverage more innovations and improve their competitive advantage in a rapidly evolving business environment.

Future of digital infrastructure: Redefining the use of infrastructure

Data has become the newest means of production. Meanwhile, the flow of data is reshaping IT infrastructure. Edge devices are being used to process massive amounts of data as massive computing becomes the newest productive force. Cloud-edge-device solutions will drive innovation in digital infrastructure. Data infrastructure defined by edge computing, heterogeneous computing, and services represent the future of digital infrastructure.

Future of operations: Ubiquitous cloud delivery

When choosing cloud service providers, 60% of companies primarily consider factors outside the overall cost and the provision of extensive cloud services. Applications deployed on public cloud platforms are expected to rise by 7.1% in the coming two years; and the hybrid cloud model will gradually become the mainstream format of data infrastructure and evolve towards a flexible ecosystem of combinable public cloud, private cloud, and edge cloud services. Ubiquitous cloud is becoming a key piece of data infrastructure supporting the future of operations, which has elasticity as its core, requiring companies to solve data faults and effectively respond to changing market demand.

Future of connectedness: Ubiquitous networks from cloud to edge

Companies pursuing digital transformation will in the future be more demanding in terms of the number of connections, connection time, methods of connection, and connection requirements solutions provide. SD-WAN, Wi-Fi 6, and cloud management will underpin the future of connectedness, with SD-WAN enhancing cloud and edge connections and Wi-Fi 6 enabling edge networks and more sophisticated wireless

applications. IDC predicts that Wi-Fi 6 will account for more than 90% of shipments in China's wireless AP market by 2023. Meanwhile, cloud management will extend to devices, networks, business, and applications to deliver increased efficiency, reduced costs and added value. The future of connectedness will enable wider and more intelligent connections with better user experiences and provide intelligent digital transformation platforms for companies.

Future of digital innovation: Enterprise market developers' transformation roadmap

IDC predicts that the digital economy will encompass more than 500 million new applications/ services by 2024 and drive companies' digital innovation. To help companies transform, IDC introduced the digital innovation framework, which empowers companies to build "digital innovation factories" based on a digital innovation supply chain made up of four steps of equal importance: plan, source, develop and distribute. The aim is to build innovative applications that create new value for companies and their customers.

From the perspective of companies, in order to boost competitiveness, more needs to be invested in software development, including technology, tools and

human resources, and external innovation resources must be fully utilized. Through leveraging modern tools, techniques and architectures to increase the speed and scale of development of software and innovation, businesses will ultimately, directly and indirectly, benefit from development outcomes.

IDC is grateful for the support it has consistently received from all quarters. It will continue to track the ICT market and provide ICT vendors and industry participants with more illuminating research insights. For more information on IDC's research and market insights, please contact Mr. Frank Wang, Associate Vice President, IDC China (email: fwang@idc.com); for press enquiries, please contact Ms. Maggie Xie, Senior Marketing Executive, IDC China (email: mxie@idc.com).

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About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. With more than 1,100 analysts worldwide, IDC offers global, regional, and local expertise on technology and industry opportunities and trends in over

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Figure 1

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