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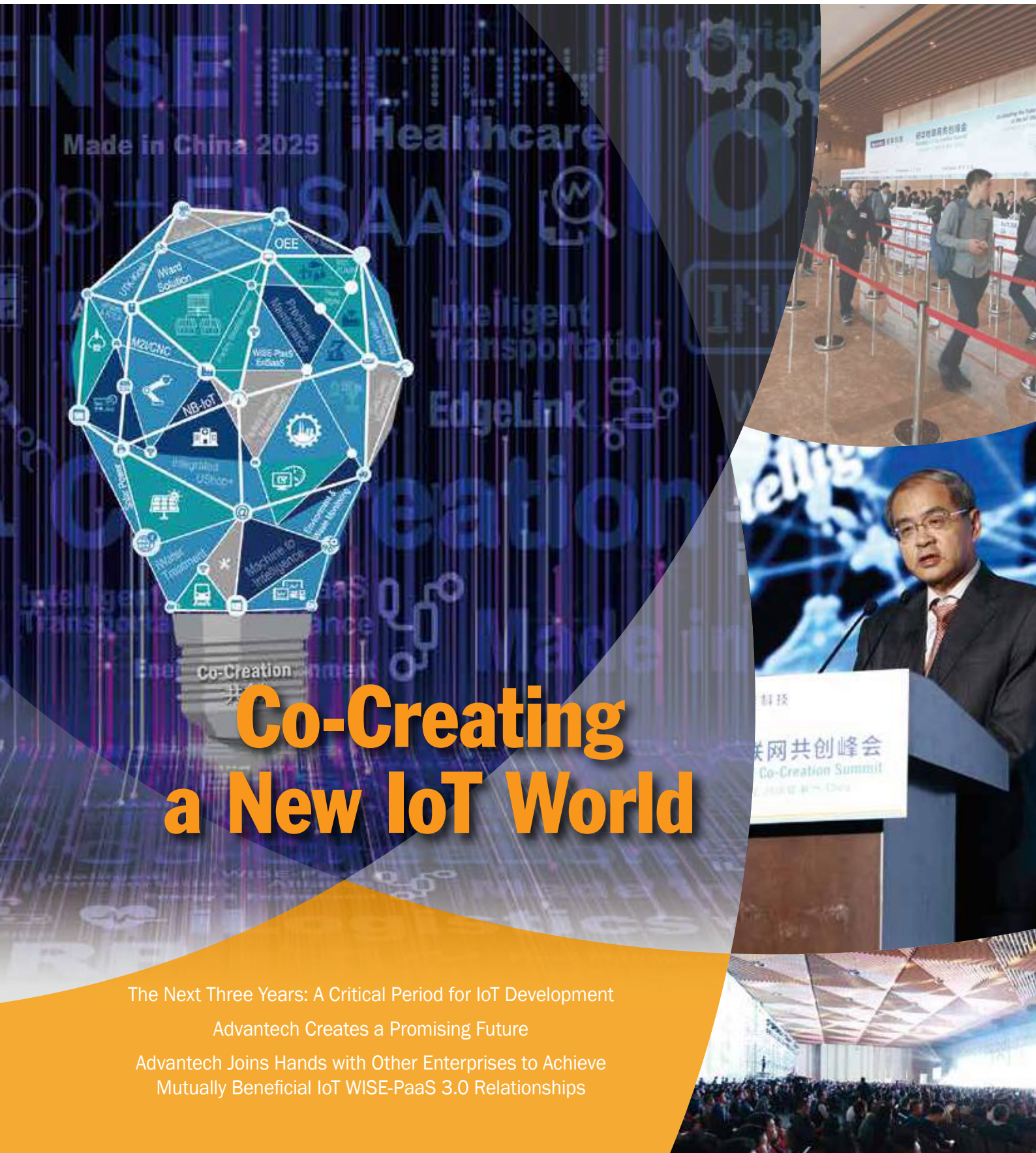

Co-Creating a New IoT World

The Next Three Years: A Critical Period for IoT Development

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Co-Creating a New IoT World

In November 2018, Advantech convened its first IoT Co-Creation Summit and invited many key industry players, including Arm, Bosch Rexroth, Intel, Microsoft, iSoftStone, and Inspur, to participate as guest speakers. At the summit, Advantech exhibited 30 IoT application solutions developed in collaboration with partners. These solutions showcased the company’s development direction for the next three years and highlighted its strong ambition and desire to realize the full potential of the IoT.

Over the past few years, IoT development has been in full swing. As Industry 4.0 grows increasingly mature, industrial cloud platforms continue attracting new customers keen to explore the benefits. However, the entire industry has still failed to unify standards and enable complete interconnectivity. KC Liu, CEO of Advantech, believes that to resolve these problems and stabilize IoT development, collaboration, where each player brings something to the table, is crucial. Therefore, co-creation was the key focus of the summit.

Advantech designed and implemented its co-creation concept to serve as a driver to promote the full vision and potential of IoT to the industry. Advantech first began developing its WISE-PaaS IoT software platform for edge computing in 2014. Subsequently, the company has collaborated with industry partners to share resources and co-create solution-ready packages (SRPs) aimed at diverse fields such as industrial automation, energy generation, and smart cities. Additionally, over the next three years, Advantech plans to secure over 80 domain-focused solution integrators (DFSI), complete SRP development projects for at least 60 clients, and recruit over 1,000 VIP members to its WISE-PaaS platform. With the support of these partners, co-creation business opportunities will be generated and the most effective mutually beneficial strategies can be implemented.

The Advantech IoT Co-Creation Summit provided the ideal situation to showcase all the results achieved by Advantech and its partners. Over the two-day event, a total of 6 summit forums were held and 40 keynote speeches were delivered. Moreover, showcases of more than 170 IoT application solutions were presented. At the Industry 4.0 booth, solutions for smart factories, smart machinery, and smart automation were displayed. At the Energy and Environment booth, smart device solutions, a smart self-healing grid, and intelligence-driven big data applications were exhibited to the admiration of the 5,000 event attendees.

In response to many requests from partners, this edition of MyAdvantech magazine has been specially compiled to showcase highlights of the Advantech IoT Co-Creation Summit, including KC Liu’s keynote speech, the AIoT-Embedded and Wireless Forum, Predictive Analytics in Manufacturing presentation, iFactory and Industry 4.0 Forum, Smart City Forum, Advantech Industrial IoT Investors Strategy Forum, and other press and media observations. Readers are invited to browse this special edition for an overview of crucial IoT trends and business opportunities.

The summit was not only hosted to herald the second phase of IoT, Advantech employees were also invited to attend and share their knowledge and experience. For those who participated in the planning, organization, and execution, this summit was a valuable opportunity to gain experience. According to Li Yu-Hong from Advantech’s digital marketing center, “The challenges faced, lessons learned, and experiences gained from organizing a summit with thousands of attendees not only broadened our employee’s professional horizons, but also supported their personal growth.”

Co-creation is more than just a business model; it is a deeper value-creation concept. Advantech believes that enterprises are not merely commercial organizations, but instead are stages where employers, employees, shareholders, and stakeholders can collaboratively “work, learn, and love life together”. ■

The Next Three Years: A Critical Period for IoT Development

By Advantech with images provided by Advantech

With rapid ongoing progress in the development of IoT, a world of ubiquitous device connectivity is quickly approaching. At the first Advantech IoT Co-Creation Summit, held on November 1 in Suzhou, company CEO KC Liu expressed his belief that the next three years will prove crucial in shaping the future of the industry. As a global intelligent systems leader providing solutions for IoT, smart cities and Industry 4.0, Advantech is committed to working with its partners across a wide range of industrial sectors to achieve mutually beneficial outcomes through an innovative co-creation model.

KC Liu, Advantech CEO

Attracting over 6,000 customers and partners from 56 countries around the world, the Advantech IoT Co-Creation Summit lasted 2 days and covered 2 summit forums, 11 themed forums, and 85 seminars. There were 170 booths showcasing the latest IoT applications and solution-ready platforms (SRP). Of these, an impressive 57 booths were hosted by Advantech SRP and DFSI partners.

With IoT entering the mainstream, it is projected that expenditure on IoT platforms in the Chinese market will rise to first place in the world by 2021.

China is the Fastest Growing IoT Country

In a previous interview with DIGITIMES, CEO Liu suggested the fastest growing period for IoT will likely be 2019-2020. At the 2018 IoT Co-Creation Summit, he re-emphasized his belief that the next three years will be the key period for IoT to fully thrive and prosper.

With the interconnection of all things now a defining feature of global industry, national governments are actively trying to facilitate IoT development as a strategy for driving economic growth. One of the most prominent examples is China, which in February 2013 issued its, “Guiding Opinions of the State Council on Promoting the Orderly and Healthy Development of the Internet of Things.” This guiding opinion was further built upon through the, “Notice of the State Council on Issuing the Medium and Long-Term Plan for Key National Technology Infrastructure Construction” (2012-2030) and the “Notice on Printing and Distributing 10 Special Action Plans for the Development of the Internet of Things” which both detail further planning for successful IoT development.

The past two years have seen a boom in China’s IoT market. According to relevant statistics, the annual market size now exceeds 1 trillion yuan with a compound annual growth rate surpassing 25%. With IoT entering the mainstream, it is projected that expenditure on IoT platforms in the Chinese market will rise to first place in the world by 2021. According to the, “Report of Market Segment Demands and Investment Opportunity on China Mobile Payment Industry” published by Forward Business Information Co., Ltd., it is estimated that by 2020 the overall size of the China’s IoT market will exceed 1.8 trillion yuan.

Given both the highly active and innovative entrepreneurial community and strong level of government support, CEO Liu stressed the vital importance of the Chinese market. Like e-commerce and mobile payments in the past, it is widely projected that China will soon become the world’s largest IoT market.

Industrial Internet of Things (IIoT)

One of the most exciting areas of the IoT revolution concerns the Industrial Internet of Things. IIoT is a major driver of deeper IoT integration with big data, artificial intelligence, and the real economy. It is also the basis for the digitalization, networking, and development of intelligent manufacturing.

During the summit, academician Hequan Wu of the Chinese Academy of Engineering gave a speech entitled, “Industrial IoT Technology and Challenges” where he expressed his view that the

Industrial Internet of Things must meet numerous requirements: high security, ultra-reliable, low latency, large connectivity, personalization, and IT & OT compatibility for enterprise applications. Accordingly, there is a need to develop communication, computing, and storage technologies in order to raise IIoT optimization levels.

Wu said that while fully realizing the potential of IIoT is a long-term process, companies should initiate digital transformation efforts - via both managerial and technological innovation - to address the challenges encountered during the course of development. With an array of new technologies and a fast growing market, IIoT provides a new kinetic energy for the digital economy.

Allan Yang, Advantech CTO

IoT is driving exponential growth in device and product connectivity, with leading technology players entering the market and upstream and downstream industry chains becoming ever more deeply integrated.

Realizing the Greatest Value of IoT

In contrast to the "Internet of Things+" model of the past, the current IoT era pays greater attention to the division of labor within the industry. With that in mind, CEO Liu explained that one of Advantech's top priorities going forward is assisting industries with the integration of existing hardware and software to establish a complete industrial value chain.

At the IoT forefront is the Advantech WISE-PaaS, which has been operating since its launch in 2014. From the initial edge IoT software module, to the continuous integration and strengthening of connections with the open source community, Advantech's WISE-PaaS platform is evolving to provide operational services to cloud platforms today while positioning itself as a lead player in the entire IoT ecosystem well into the future. This future development encompasses edge platform and universal IoT cloud solutions that dynamically connect computing energy providers, cloud service providers, solution ready platforms, equipment users, and manufacturers, into one holistic IoT value chain.

CEO Liu said that for the IoT value chain to reach full implementation, the key to success lies in full cooperation and integration between platform technology suppliers and industry experts. In doing so, standardized and reproducible software and hardware SRPs can be formulated. Comprehensive SRPs can then be installed and maintained on-site by the system integrator as a complete field solution that creates an effective IoT industrial chain.

During the summit, Advantech's Chief Technology Officer Allan Yang revealed that the IIoT data platform will accelerate the development, deployment, and commercialization of industrial solutions in building an integrated ecosystem. However, according to CTO Yang, at this stage solution providers still confront the challenge of high fragmentation at the industrial edge which requires vertical expertise and integration with corporate workflows. Nonetheless, Advantech reiterated its commitment to accelerate the application development of IIoT SRPs in various industries to build a more complete IoT industry chain.

IoT is driving exponential growth in device and product connectivity, with leading technology players entering the market and upstream and downstream industry chains becoming ever more deeply integrated. Standing at a new IoT milestone, CEO Liu stressed the importance of working with Advantech's partners throughout every step of the value chain process.

Deepening the IoT Market

To seize the business opportunities presented by IoT while deepening partnerships with key industry players, Advantech is actively deploying a global development strategy. On October 26, Advantech acquired an 80% share in OMRON Nohgata, - subsidiary of Japan's OMRON Corporation - to accelerate the expansion of its embedded systems market in Japan and enhance local language services.

At the same time, Advantech is strengthening IoT marketing and increasing its sales base in the United States and Europe. In hopes of creating a powerful Industry 4.0 brand across the European market, Advantech recently opened two branch offices: one in Stockholm, Sweden in 2017 and the other in Barcelona, Spain in 2018. Warsaw, Poland has also emerged as a key center to expand business opportunities throughout 24 different markets in Eastern and Central Europe. Advantech Executive Director Chaney Ho stated that Advantech will continue strengthening its international rollout with an aim toward becoming a global IoT leader.

In Asia, Advantech will continue actively investing in China, where at present, there are roughly 800 sales distributed in 50 locations throughout China. Director Ho pointed out that the country will serve as a developmental base for Industry 4.0 SRPs well into the future. To take advantage of China's burgeoning market, Advantech is committed to nurturing local talent in service of building its IoT brand. ■

Advantech Creates a Promising Future

By Advantech with images provided by Advantech

In today's hyper connected world, the integration of various technologies such as edge computing, artificial intelligence (AI), and big data analysis has been crucial to the digital transformation of various industries. By offering a comprehensive portfolio of Artifical Intelligence Internet of Things (AIoT) products, Advantech hopes to assist customers with seizing and expanding AI and IoT business opportunities using the Advantech IoT platform.

In an effort to consolidate industry strengths, promote the digital transformation of industries, and build an open and mutually beneficial ecosystem, Advantech has developed comprehensive AIoT products based on its IoT platform. These products are designed to help customers fully exploit all business opportunities generated by AI and the IoT.

On November 1, 2018, at the AIoT-Embedded and Wireless AIoT Forum held at Advantech's first IoT Co-Creation Summit, Miller Chang, Head of Advantech Embedded IoT, announced the launch of Advantech's IoT ecosystem. The goal for this ecosystem is to generate co-creation business opportunities together with partners.

Advantech IoT Eco-Chain Cultivates New Solutions

According to the ITRI Industrial Economics and Knowledge Center (IEK), the number of smart networking devices globally will grow from 8.4 billion in 2017 to 20.4 billion by 2020. Moreover, IDC predicts that the value of the AI market (including hardware and services) will increase from US$8 billion in 2016 to US$47 billion in 2020, with a compound annual growth rate of 55%.

With all the new opportunities generated, China's AI market is set to undergo tremendous growth. By combining AI with various IoT embedded systems, AI technology is gradually introduced and IoT systems are upgraded into smart devices with AI, also known as AIoT.

Since the announcement of its IoT development strategy in 2010, Advantech has actively developed and promoted the IoT. Leveraging the company's more than 30 years of experience producing computing solutions has given Advantech a tremendous advantage in penetrating the highly competitive IoT market.

In an interview with DIGITIMES, Advantech CEO KC Liu commented, "We can't keep pace with China's BAT (Baidu, Alibaba, and Tencent), but we can stand on the shoulders of giants and provide industry partners with a platform to create IoT solutions." He then added, "We need to create partnerships and expand the IoT market together with our partners through a cross-industry alliance."

In the IoT industry chain, no single company can operate in isolation. Instead, companies must cooperate with others to achieve synergy and mutual prosperity. This idea is best reflected in the old proverb, "If you want to go quickly, go alone. If you want to go far, go together."

Back at the first Advantech IoT Co-Creation Summit, in addition to introducing the IoT ecosystem, Chang announced the launch of five industry-focused edge-computing solution-ready packages (ESRPs).

The first product debuted was an ESRP for automated license plate recognition (ESRP-LPR). This solution features an AI accelerator for performing algorithmic calculations using a pre-trained model, enabling functions such as license plate recognition, vehicle classification, vehicle counting, and vehicle detection.

The second ESRP offering was, as introduced by Advantech, the world's first industrial edge AI module. Unlike conventional high-performance graphics cards that can be used to train neural networks, the industrial edge AI module is more inclined toward neural network inference. This means using a trained neural network to make inferences, which is the primary function of an edge computing device.

The third ESRP was a self-service terminal (ESRP-ISK) that can interpret data according to user settings, from remote platforms, and using visualization dashboards in order to optimize retail solutions.

The fourth ESRP was an equipment vibration monitoring module (ESRP-EVM) that provides an accurate overview of machine performance to facilitate preventive maintenance. Additionally, all collected data can be transmitted to Advantech's cloud platform to enable data monitoring and forecasting.

The fifth ESRP was a protocol conversion module (ESRP-EIP) that can serve as the platform for various IoT solutions aimed at different vertical markets, such as smart manufacturing, smart transportation, and smart cities.

Overall, all Advantech ESRPs support data visualization and can be customized according to specific application requirements and industry needs.

Miller Chang, Advantech Embedded IoT President

Xiao-Tien Chen, China Unicom IoT Executive Director

Advancing Toward a New Era of Industrial IoT

With active promotion by major business operators and mobile phone manufacturers, the speed of 5G for data processing is accelerating. Compared with 4G, future 5G networks will support transmissions rates of up to 10 Gbps and be able to complete workloads much faster than 4G networks. The key characteristics of 5G technology include a high frequency range, minimal delay, low power consumption, and high security, which are all essential requirements for IoT.

In addition to the development of 5G, diverse wireless IoT and low-power wide-area network (LPWAN) technologies are increasingly emerging.

At the AIoT-Embedded and Wireless AIoT Forum held in November 2018, Advantech also announced its co-creation partnership with China Unicom. The aim of this partnership is to jointly seize IoT development opportunities and collaboratively build IoT solutions for smart manufacturing, smart utilities, and smart charging applications.

Xiao-Tien Chen, Executive Director of China Unicom IoT, asserted that, "Having entered a new era where everything is interconnected, we need an IoT platform that can support numerous sensing devices to realize a faster and smarter IoT."

Unlike the post-Internet segmented industry model, where everything is built and developed based on traditional technology and industry, the IoT is actually a fusion of cross-platform innovation. Explaining how China Unicom is actively investing in AIoT, Chen said, "China Unicom is willing to cooperate with more industry partners to promote IoT applications integrated with 5G technology in the future in order to create a new era of high efficiency, convenience, and security." ■

Advantech Joins Hands with Other Enterprises to Achieve Mutually Beneficial IoT WISE-PaaS 3.0 Relationships

In our data-oriented era, the market for cloud-based services is booming. In this environment for developing services, cloud platforms are at the core of value creation for IoT applications.

By Advantech with images provided by Advantech

As Industry 4.0 matures, industrial cloud computing platforms are attracting greater interest as more companies compete for market share. In recent years, Advantech has focused on the industrial cloud and created the WISE-PaaS IIoT cloud platform—a special software and hardware Solution Ready Package (SRP) with partners using WISE-PaaS.

At the first IoT Co-Creation Summit held on November 2nd, the "WISE-PaaS IIoT Platform Technology and Business Support" forum launched an exciting new SRP model between Advantech and its partners.

Intersection of Smart Manufacturing

With the continuous advancement of the "Made in China 2025" strategy, traditional manufacturers in China face the challenge of transforming and upgrading to smart manufacturing.

According to the "2017-2018 China Smart Manufacturing Report," the market size of China's smart manufacturing system solutions reached 106 billion yuan in 2016, representing a year-on-year increase of 18.4%. The report points out that China has built more than 200 digital workshops or smart factories. It is estimated that the scale of China's smart manufacturing market will soon exceed 220 billion yuan in 2020.

Within the blue ocean of smart manufacturing, the transformation of traditional manufacturing into smart manufacturing is already well underway. However, in the process of transforming, traditional manufacturing processes are still subject to various constraints. "We are faced with many problems in the application of industrial software," said Beijing Ewin Information Technology's CTO James Yuan. "Factors such as insufficient reserves of smart manufacturing equipment, difficulty in optimizing business processes, short supply in key resources for IT development/operation/maintenance, and challenges in coordinating project integration have all constrained the development of smart manufacturing."

The ultimate goal of Advantech's co-creation model with the Internet of Things is to realize and assist in the development of cloud platform solutions that integrate IoT applications, not only for vertical industry solutions but also the third phase of Advantech's IoT development.

Yuan believes that the core of manufacturing competitiveness lies in expertise, process specifications, smart manufacturing applications, and cloud platforms. "The Advantech WISE-PaaS brings a lot of value to smart manufacturing SRP suppliers. For example, IIoT hardware has reached device interconnection, the platform visualization software has achieved dynamic display, and the AFS platform (AI Framework Service) has overcome the obstacles of new technological application."

In response to the development of the IoT industry, Advantech proposed three major stages of strategy. In the first stage, addressing embedded hardware platforms, involves the basic task of data acquisition - such as edge computing and terminal products where Advantech possesses abundant experience. The improvement of the WISE-PaaS IIoT Cloud Platform with industrial PaaS is at the core of Advantech's efforts for the second stage of IoT development.

In 2015, Advantech launched the WISE-PaaS IIoT Cloud Platform as a flexible, innovative, and cross-cloud mobile platform. WISE-PaaS includes public cloud and private cloud services, providing customers with a complete development environment and assistance for customers in the management and operation of IoT cloud services for various industrial applications. For each vertical industry, Advantech creates an SRP application solution for the IoT industry that integrates software and hardware and can be quickly reproduced. Based on WISE-PaaS development industry-specific solutions, co-creative partners can achieve cross-platform data utilization, visualization, and cloud service applications all at the same time.

The ultimate goal of Advantech's co-creation model with the Internet of Things is to realize and assist in the development of cloud platform solutions that integrate IoT applications, not only for vertical industry solutions but also the third phase of Advantech's IoT development. Through cooperation with vertical industry partners, IoT solutions can be rapidly spread to other applications in industries like energy, the environment, and smart cities.

WISE-PaaS 3.0 is Gaining Momentum

At the Advantech IoT Co-Creation Summit, Advantech Chief Technology Officer Allan Yang explained, "The IIoT data platform is still facing the challenge of high fragmentation resulting from the industrial edge at this stage, requiring expertise in vertical areas and integration with workflow. Advantech has clearly defined its position and is committed to accelerating the application of SRP in various industries, providing a development environment for partners with the expectation to build a complete IoT industrial supply chain."

Advantech's WISE-PaaS 3.0 platform technology was unveiled at the forum with many co-creation partners, and the IRP industrial solution SRP based on WISE-PaaS was jointly announced and revealed.

Device Remote Operation Service

This connects a wide variety of field device controls and communication protocols, and supports the latest edge computing EdgeX Foundry open source standards with built-in device management and workflow integration combined with an AI Framework Service (AFS) to accelerate the deployment of AIOT devices.

WISE-PaaS/Dashboard

Since current industrial equipment cannot fully depict a "digital virtual" model, the presentation of industrial materials is often complicated and disorderly. In this regard, WISE-PaaS/Dashboard is committed to providing a more intuitive, orderly, and easy-to-use form of data presentation, giving value to the data and making it a driving force for productivity and efficiency.

WISE-PaaS/Dashboard supports a wide range of data sources and databases to handle complex industrial scenarios in a visual way. In addition to supporting a variety of official mainstream plug-ins, there is also a wealth of business scenarios with customized plug-

ins to meet the highly fragmented needs of IIoT. This enables partners in all fields to quickly build their own information intelligence rooms.

Process Visualization & Cloud Config Tool

Supports customized graphics components and can import 3D modeling, draw interactive images, and display key management data on a millisecond-level screen. WISE-PaaS/Dashboard assists users in obtaining data values and improving operational efficiency.

WISE-PaaS/SaaS Composer 3D supports standard generic .OBJ and .MTL 3D geometry file formats. It can import SaaS Composer 2D files for detailed presentations with millisecond-level screen redraws to present real-time enhanced data values. Combined with 3D object and 2D animation, it offers optimized performance.

AI Model Training and Deployment Service

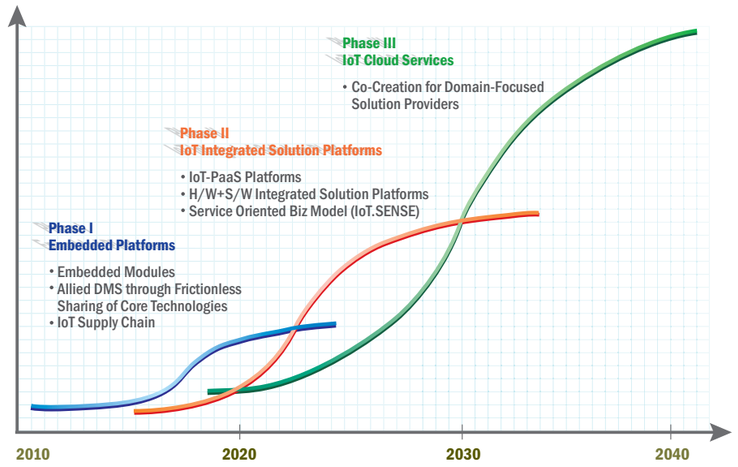
Provides a simple operating interface that allows developers to quickly import industrial data, combine AI algorithms, build an effective inference engine, and automatically deploy to the edge computing platform. At the same time, AFS provides automated model accuracy management, model retraining, and redeployment. AFS also manages multiple AI models in the application scenario, providing automated model accuracy enhancement and model life-cycle management services.

"The integration and connection of the IoT industrial supply chain is not something that can be achieved alone, it requires teamwork. IoT involves all walks of life, and the connection from the upper stream to the lower stream is never an easy thing to do," said Advantech CEO KC Liu. He also said that it is necessary to work closely with partners to achieve mutually beneficial outcomes when creating IoT solutions. "At present, Advantech has initiated co-creation cooperation with various partners and has developed domain focused system integration," said KC.

Advantech expects to develop 60 co-creation projects within the next three years. Advantech has already communicated with nearly 100 companies across an array of industries for co-creation projects, and several projects are already in progress. For example, Advantech worked together with the China's GSD Industrial Co., Ltd sewage treatment company to create a smart cloud platform for water treatment and purification. Advantech joined forces with KINGLEKE to create UShop+, a smart convenience retail store. Advantech also teamed up with TBL to create featherweight logistics automation technology based on IAOT (IoT+BI+AI).

As CEO Liu put it, "Co-creation requires all partners to work together to build the Internet of Things through cross-industry alliances. Advantech is working hard with its co-creation partners to win the future of IoT." ■

Advantech's Key Initiatives at each IoT Phase



Advantech Breaks the Code on Smart Manufacturing Transformation

With rapid advancements in the Internet of Things (IoT), information technology now enables the promotion of smart manufacturing on a mass scale. In adapting to this fourth industrial revolution by building new manufacturing systems, a focus on smarter production has become a major priority for the global business community.

By Advantech with images provided by Advantech

At the AIOT Solutions for Smart Manufacturing and Devices forum held during the Advantech IoT Co-Creation Summit in Suzhou, Vice President of Industrial Automation Group, Allan Tsay, Executive Director of the Smart Manufacturing Institute, Min Chao, Associate Vice President of Advantech Manufacturing Operations, Jamie Lin, General Manager of Inspur Cloud, Wen-hui Zhao, and other key industry voices jointly explored the business opportunities for smart manufacturing.

On the topic of, "Working Together to Create a New Era of Smart Manufacturing", Tsay said that the most crucial thing over the next three years is joining hands with partners, developing rapidly, and moving towards a new era of smart manufacturing.

After introducing Advantech's smart manufacturing factory and intelligence center, Tsay pointed out that smart manufacturing is not about mass production capabilities, but rather about whether production can be tailored for specific customer needs. With the revolution in big data driving Industrial Internet of Things (IIoT) development, collecting important data through smart devices, providing optimized analytics, and ultimately, improving productivity, quality, and sales is crucial.

Tsay stressed that, "To utilize data effectively, the industry's experience with data application is key." To that end, Advantech works hard to combine industrial application analysis, refine production and equipment data, and build a cloud-based manufacturing headquarters with data at the core. Furthermore, the accumulated experiences of business operators are being combined to provide better services and achieve outstanding outcomes. From his point of view, the three major factors that drive enterprises toward smart manufacturing are insight, determination, and inheritance. All industries are advised to think about how to harness the current IoT wave to best empower their industries and add value to their businesses.

Exploring the underlying code to IIoT and smart manufacturing

Min Chao, executive director of the Smart Manufacturing Institute, is a well-known expert in the field of smart manufacturing. He believes that IIoT is the foundation of smart manufacturing, the cornerstone of which is, software-defined networking.

So, what is the definition of smart manufacturing? Chao concluded that it is the process of transforming human intelligence into machine intelligence. He said, "

The basic logic of 'software-defined networking' is to explicate human implicit knowledge (thoughts, algorithms, reasoning) and precipitate it as explicit knowledge. The knowledge is embedded in the software, the software is embedded in the chip, the chip is embedded in the hardware, and the hardware is embedded in the object (physical device). Constructed in accordance with such a basic structure, from the liberation of human labor in the past to the saving of brain power as can be seen today, smart manufacturing spans and realizes the closed circuit-enabling system of computing, networking and physical entities—so called, Cyber-Physical Systems (CPS)."

Chao further elaborated that the essence of manufacturing is reducing the uncertainty of complex systems. Based on CPS and software-defined networking, the data loop of state awareness, instant analysis, decision making, precise execution, and learning progress is constructed, and the data formed by software is deployed automatically to eliminate the uncertainty of complex systems. A manufacturing process that optimizes the allocation of resources at a given time and in targeted scenarios is the real test of smart manufacturing systems.

Chao believes that industry needs to complete internal reforms first, and then consider upstream and downstream industry chains, before finally addressing the entire ecosystem holistically. The role of the government input in productively working with companies from all walks of life will also be critical to success.

The Road to Smart Factory Upgrades

Data-Driven Management is the core of Advantech's manufacturing base in Kunshan, where smart factory upgrades are being implemented. While sharing his experience of smart manufacturing, Lin pointed out that before the introduction of the smart factory system, production-related results could only be obtained from the production line at the end of each week or month as an example of remedial management. However,

Allan Tsay, Advantech Vice President of Industrial Automation Group

traditional manual operations and management have no way to meet increasingly complex market changes and both production personnel and managers need to obtain timely information on equipment and production status.

Jamie said that production work is no longer as cumbersome and repetitive as in the past. Smart monitoring and enhanced decision making is being achieved via the deployment of new sensor technology and machine vision. According to official Advantech data, the benefits of importing automated production lines in 2017 were as follows: where the total number of employees in the factory area decreased by 2.2%, the per capita output value increased by 16.9%, the total output value increased by 16.3%, and the energy consumption/output ratio decreased by 7%.

In addition, Lin pointed out the need for combining industrial/technological transformation with changes in corporate culture to enable everyone to better understand the importance of data-driven decision-making and action.

The Ecology of Inspur Cloud

The cloud computing + big data paradigm is replacing the computer+high processing paradigm as the defining feature of industrial upgrades in the IoT era. Inspur Cloud has been an early adoptee of the movement from the cloud to beyond the cloud, and from a cloud strategy 1.0 to a cloud computing + big data 2.0. Now we are moving to the third stage: cloud computing + data + intelligence.

Evolutionary logic is not difficult to understand. In Inspur Cloud's view, the collection and processing of industrial big data is the core competence of IIoT. Therefore, IIoT platforms should have three capabilities: cloud service support, enterprise information service capabilities, and experience related to advanced manufacturing models.

In this IIoT cloud era, Inspur Cloud, unlike rivals Alibaba and Tencent, seems to be more of a fusion-based cloud model. IIoT is an industry and application ecosystem formulated by the deep integration of a new generation of information technology and industrial systems. Chao explained that the Inspur Cloud IIoT platform integrates new technologies - such as cloud computing, big data, Internet of Things, and artificial intelligence - with industrial systems in many different aspects. Inspur Cloud helps enterprises build cloud-based systems driven by dual-mode IT architectures to realize the re-integration of internal products, deliver improved new services, and promote the digital transformation of enterprises.

In addition, Inspur Cloud's IIoT also emphasizes the deep integration of hardware reconfiguration and software definition. Chao said that there are three keys to success: opening of infrastructure and ecology, convergence of public, private, hosted, and community clouds in the cloud computing market, and system security. ■

DIGITIMES President Colley Hwang:

Trends and Misperceptions Influencing IoT Growth

In an era where things are becoming increasingly interconnected, many new industrial computing opportunities are emerging. In addition to technology giants Microsoft and Google, other companies such as BAT (Baidu, Alibaba, and Tencent) and Xiaomi have made efforts to seize the business opportunities generated by IoT.

By Advantech with images provided by Advantech

Colley Huang, DIGITIMES President

Chaney Ho, Advantech Executive Director of Board

At the first Advantech IoT Co-Creation Summit held on November 2, 2018, in Suzhou, China, DIGITIMES President Colley Hwang pointed out that misconceptions of the Internet of Things (IoT) industry, including exaggerated benefits and underestimated difficulties, are restricting factors that impede growth. He believes that an honest appraisal of the development of the IoT industry is necessary to ensure healthy growth.

Honest Appraisal of the IoT Industry

Widespread interconnectivity has become a recent trend, with diverse stakeholders actively promoting the acceleration of IoT deployment in various industries. According to the latest global IoT market report released by the GSMA, the value of the global IoT market will reach US$1.1 trillion in 2025, and commercial applications will soon occupy half the market. They also estimate that by 2025, 1.8 billion IoT serial connecting points will have been deployed around the world.

Undoubtedly for many people, IoT is the first major technology "gold rush" since the arrival of the Internet. The aggressive IoT deployment by giants such as Microsoft, Google, and BAT looks certain to accelerate the popularity of IoT applications and further expand the market. However, Huang asserted that despite the rapid development, many misconceptions about the IoT still exist.

"There are currently more than 500 IoT platforms on the market," said Huang. However, the lack of someone "responsible" or "in charge" has led to considerable chaos and confusion in the IoT market. Although businesses are keen to embrace IoT applications, herd mentality without direction may result in an overheated IoT market. According to Huang, the benefits of IoT development have also been exaggerated and the difficulties underestimated, which may prevent some companies from successfully developing their IoT capabilities.

Despite the common misperceptions, the benefits and advantages of the IoT should not be overlooked. At present, the IoT is being gradually employed in numerous fields for a wide range of applications, such as wearable devices, smart homes, smart cities, and smart manufacturing. As technology continues to mature and policy support continues to increase, the IoT will play a greater role in the fields of medical care, education, and logistics, accelerating technological upgrades in relevant industries. "The new revenue and better customer service provided by the IoT will enable industries such as e-health, industrial manufacturing, smart grids, smart homes, and smart cities to simplify operations and save costs," Huang commented.

Two Strategies to Accelerate IoT

Since the beginning of the 21st century, the flourishing of free trade has rapidly advanced economic globalization. However, with the recent China-United States trade dispute, and the possible end of economic globalization, concerns are beginning to emerge. However, Advantech Executive Director of Boards Chaney Ho is confident that globalization will not end. Nonetheless, the "Globalization 2.0" model that has been in place since World War II is no longer sustainable, and the "Globalization 3.0" model, which focuses on manufacturing and market matching and industrial balance development, should be the strategy moving forward.

In Ho's view, the adjusted Globalization 3.0 model means that funds, talent, and technology will be relocated to the market countries in order to integrate the industrial ecological chain, create jobs, and move towards a balanced development of manufacturing and market-matching industries. Enterprises like Foxconn, Fuyao, CRRC, and Everest have all moved to the United States and established factories for the sole purpose of production.

He reported that Advantech's future operations will emphasize two major aspects - simplification and expedition. Through the second and third phases of IoT deployment, Advantech aims to simplify and expedite the realization of the IoT. Additionally, Advantech will continue strengthening its global presence in an effort to become a global leader of the IoT industry.

Advantech recently acquired an 80% share of OMRON Nohgata, a subsidiary of Japan's OMRON Corporation, in order to expand its share of the embedded systems market and enhance its local services in Japan. Similarly, Advantech has partnered with Italian manufacturer Alleantia in a bid to expand the European IoT market. In 2018, Advantech also established branch offices in Vietnam and Russia and expanded the scope of business services offered at its U.K. office. Finally, in regards to the Chinese market, Advantech has a total of 800 sales teams distributed among 50 branch offices.

Co-Creation Initiatives are Key to IoT Success

As DIGITIMES President Huang once stated, "Trade promotes industrial development, cooperation encourages innovation, and alliances are key to IoT success." This statement echoes the co-creation concept advocated by Advantech, which, combined with three major factors - manufacturing requirements, edge computing, and global expansion - will continue to shape Advantech's operations in 2019.

According to Advantech CEO KC Liu, Advantech will act as a supporter and work on building an industrial chain together with telecommunications operators, large software companies, and small and medium-sized enterprises. "Co-creation requires that all partners work together to build the IoT through cross-industry alliances."

At the November IoT Co-Creation Summit, Advantech President of General Management Eric Chen highlighted that in response to the three-stage development of the IoT, Advantech has formulated development strategies for every stage. He revealed that domain-focused systems integrators (DFSI) will be encouraged through co-creation initiatives to develop cloud services for the third phase of IoT deployment. Additionally, Advantech has also set corporate goals to secure more than 1,000 WISE-PaaS platform members, more than 60 solution-ready package (SRP) co-creation partners, and more than 80 DFSI by 2021. Needless to say, if these goals can be met, the future of the IoT industry will be very bright indeed. ■

Advantech says Local Presence is Key to European Market

In open conversation with delegates and journalists at the recent Advantech IoT Co-Creation Summit in Suzhou, China, Sector Head of Industrial IoT Europe at Advantech, Jash Bansidhar, reveals how the company has achieved a CAGR of 15% over the past five years in Europe.

By Ipmediaonline Nicolas Bony with images provided by Advantech

Jash Bansidhar, Advantech Industrial IoT Europe Sector Head

Moving forward, by working with co-creation software partners, we can continue to add new and unique solution-ready platforms [SRPs] at a high rate of introduction. We can therefore extend our portfolio tremendously in comparison with larger competitors who traditionally try to do everything themselves; big companies are typically slow at innovating.

For any progressive and ambitious company, the European market is a vitally important commercial landscape. However, of all the continents, Europe is often deemed the most complex, not least because of inherent language and cultural differences.

Bucking the trend is Advantech, which although originating from Taiwan, has grown rapidly in Europe to become a market leader in the fields of intelligent IoT systems and embedded platforms.

“To fuel expansion in Europe we have always recognised the need for geographic proximity to our customers,” explains Mr. Bansidhar. “In the early days we set up distribution sales channels in major European countries. Taiwan is only small, so this is a normal strategy to help increase market share – by globalising with partners.”

Once sales in Europe started to grow, Advantech began introducing its own local sales teams to support its established partners locally, increase brand awareness and develop global key accounts. Rather than provide support direct from Taiwan, with the obvious language and time zone challenges, the company was now better equipped for growth.

“This move helped us to have a local presence, using people who could communicate in the required language,” says Mr. Bansidhar. “However, English at that time was not commonly accepted in all European countries. It was fine in the Netherlands or Nordic countries, for example, but not in France. So, we learnt that if you want to serve big customers in France, it is best to have local engineers who can speak French and understand the technical details from their core. The same is true in Italy and Germany. All of these countries respond to very different sales approaches. Some like a direct, straight-talking approach, while others prefer social niceties up front, before getting down to business. It is vital to understand these differences.”

Advantech now has a series of sales and support offices across Europe, including in France, Italy, Germany, Poland, Benelux, Sweden, United Kingdom, Czech Republic and Spain. By working direct with channel partners and key accounts, Advantech managed to increase its sales conversion rate.

Advantech’s strategy for global industrial IoT opportunities “To provide an example, for many years we served Scandinavia from the Netherlands, because we thought the culture was similar,” explains Mr. Bansidhar. “However, despite providing lots of quotations and supporting many projects, we never won any major contracts. The big deals went to a local player. In contrast, immediately after opening our Stockholm office, we started to get orders. It’s a very simple example of how it works in Europe.”

Another example relates to Germany, where big companies are sometimes reluctant to consider brands from Taiwan. Here, Advantech learnt to approach German subsidiaries located in Eastern Europe, which are traditionally more receptive to quality products at a competitive price point. Once established, word would reach the German parent company about the impact of Advantech solutions. Local experience has therefore proved invaluable.

Mr. Bansidhar admits it took Advantech some time to accept the need for this type of approach. The company was familiar with doing business in the US, where there is one language, one culture and one set of laws and regulations, which contrasts greatly with Europe, where empowerment can only be achieved via a local provision.

Advantech reports that its geographic footprint is almost complete in Europe, although the company’s growth ambitions continue, both in field sales, technical support and M&A. The company today has more than 10,000 Industrial IoT enabled products and rising, which is another reason underpinning CAGR of 15% over the past five years. Compare this figure with average manufacturing GDP growth, which stands at only 1-2%, and certain conclusions can be drawn.

“The stark difference between our CAGR and GDP growth means we are outperforming our competition,” states Mr. Bansidhar. “Moving forward, by working with co-creation software partners, we can continue to add new and unique solution-ready platforms [SRPs] at a high rate of introduction. We can therefore extend our portfolio tremendously in comparison with larger competitors who traditionally try to do everything themselves; big companies are typically slow at innovating.”

Advantech’s co-creation strategy brings global SMEs into the company’s eco-system, where their knowledge is bundled with that of Advantech to create Industrial IoT solutions which are easy to deploy for end users. This ethos leads to extremely efficient development cycles.

“Another thing about Europe is that eight of the world’s top 10 most innovative countries are located here,” says Mr. Bansidhar. “So, in terms of our co-creation strategy, Europe is well placed to develop innovative SRPs. With this in mind, Europe is important to Advantech, not just in sales terms, but in a corporate sense.”

Looking further afield, Advantech now plans to use its Warsaw office to link west with east. As China is now looking to re-open many of its old silk trading routes, Advantech wants its Polish office to become the gateway for potential trade routes to China, via countries such as Turkey and Mongolia. ■

Advantech Ready to Embrace IoT Challenges

The just-concluded 2018 Advantech IoT Co-Creation Summit held in Suzhou, China highlighted the top IPC vendor's roadmap for developing IoT solutions and services in cooperation with global partners, in tune with the forum's theme of co-creation. And the sheer size of the event showed Advantech's determination to embrace the challenges of the IoT era.

By DIGITIMES Colley Hwang and Willis Ke with images provided by Advantech

The event proved quite a success, as it gathered more than 5,000 business partners, media representatives and venture capitalists, according to Advantech chairman KC Liu, who along with other company executives, including Advantech President of General Management Chaney Ho and Advantech President of General Management Eric Chen, demonstrated what Co-Creation means.

Advantech believes that the thriving IoT market provides immense and multiple business opportunities that are ubiquitous and growing fast, and new business models beyond the traditional "design-win" model are required to secure a preemptive presence in the space. Accordingly, Advantech adopts the strategy of soliciting more partners to develop vertical markets. It will provide partners with cross-domain and cross-platform service solutions integrating software and hardware to co-create business opportunities and achieve a win-win scenarios.

Cooperation with 20 DFSI Partners

At the event, Advantech signed cooperation contracts with 20 domain-focused system integrators (DFSI) in China, which can offer customized domain-oriented solutions in their respective dedicated fields of smart manufacturing, smart city, information security, mobility and smart healthcare. The company plans to build business ties with 50 more DFSI partners in 2019 and then pursue an annual increase of 20 such firms from 2020 on.

In his briefing, Advantech CTO Allan Yang said that as IoT services are still short of standard solutions, intermediary service platforms will play a crucial role in this regard. Yang highlighted the importance of Advantech's WISE-PaaS (platform as a service) architecture, which can serve as an intermediary platform between a data platform and application end to provide an easier access for customers and allow them to pay only for use.

Advantech has managed to sustain healthy revenue growths and high gross margins over the past few years. The company saw its revenues for 2017 surge 12% on year to US$1.455 billion, and its revenues for the first three quarters of 2018 expand 14% on year to US$1.213 billion, which is expected to soar further to US$1.6 billion for the whole 2018. The firm's average annual revenue growth will hit a high of 11.5% during 2010-2018, with its gross margins lingering at a high level of 38-39%. High gross margins have enabled Advantech to step up business upgrades and transformations and enhance deployments in the IoT space.


Eric Chen, Advantech President of General Management

Paul Luo, General Manager of Advantech China

Operation Strategy for 2019

When it comes to operation strategy for 2019, Advantech will focus on consolidating its manufacturing systems, tapping edge-computing business opportunities and promoting localized production and services worldwide.

Advantech President of General Management Eric Chen pointed out that in order to render better services to customers in Japan, the company has acquired a 80% stake in Japan-based ORMON Nohgata, a specialist in embedded computing systems, and both sides will also enhance cooperation in IoT platform services.

Advantech has also shown high regard for multiple manufacturing systems at its plants. The firm's board executive director Chaney Ho noted that Advantech's robust capability of handling small volume production of a variety of products has helped to maintain the firm's gross margins at a certain level despite the shortfall of components. In 2017, Ho continued, the firm's plant in Kunshan, China, managed to boost its per capita production value by 16.9% and cut power consumption by 7.8% while slashing its workforce by 2.2%.

Marketwise, Advantech has seen 78% of its revenues coming from Europe, North America and Greater China, with North America contributing 27.1% and greater China 32% (including 25% from China and 7% from Taiwan).

To mitigate the impact of US-China trade rows, Advantech China general manager Paul Luo said that his company will continue soliciting more DFSI partners in smart manufacturing or smart city sector, adding that Advantech has developed a set of mechanism to sort out reliable partners and provide different cooperation packages in accordance with their professional competences and financial conditions.

Globalization 3.0

In terms of localized production, Ho said that the de-globalization trend is emerging, but the globalization trend is yet to subside, with Globalization 3.0 gaining momentum in 2018, which highlights localization, differentiation and customization services and requires more production foothold worldwide.

At the summit, Advantech also releases its revenue goal of US$2.3 billion for 2021, including US$2.0 billion from traditional industry-control, automotive electronics, and built-in hardware sectors, US$170 million from WISE-PaaS systems and US$130 million from cloud SRP and WISE-PaaS cloud services.

Bold Moves

It is never easy to arrange such a big event, and Taiwan's ICT firms have rarely held events of such a big scale as Advantech's. The business opportunities are there, and different firms may take different approaches to seize those opportunities. Taiwan's ICT firms have been typically timid in the face of opportunites, but this time maybe they should stake bolder steps. ■

Advantech Drives Partnership Initiative to Kick-Start Global IoT

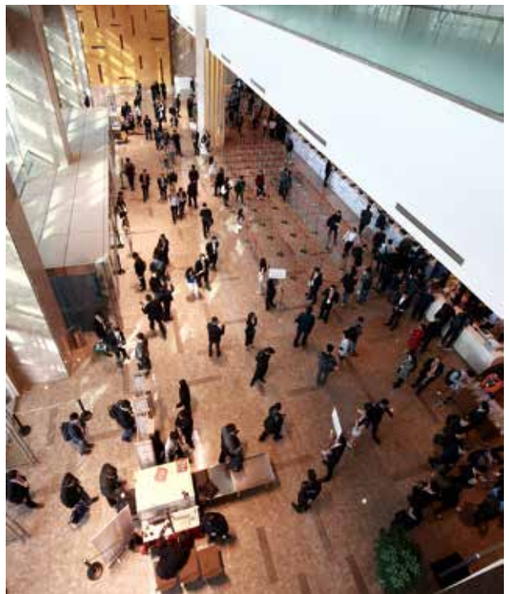
Advantech Co., Ltd. has concluded its Advantech IoT Co-Creation Summit, which was held at the Suzhou Inter-national Expo Center in Suzhou, China. The two-day event comes in unison with the company's artificial intelligence/IoT (AIoT) long-term co-creation business model and aims to create new values to its business and solutions, focusing on each domain along with partners in different industrial sectors.

By Dempa-AEI with images provided by Advantech

The 15-year business model, which it started in 2010, is divided into three phases. The first phase is the development of IoT architecture based on embedded platforms; the second phase is the development of IoT software and hardware integrated solution platforms; and the third phase, is the development of domain-focused solution integrators. Based on its business model time frame, Advantech is already shifting towards the second phase of the long-term IoT development, which is centered on the deployment of the WISE-PaaS Cloud Industrial IoT Platform and Solution Ready Packages.

New Business Model

The first IoT Co-Creation Summit hosted by Advantech in China serves as a kickstarter for the implementation of the IoT business model together with partner companies. The summit drew 5,598 people from around the world, including Advantech's partners and system integrators. In a keynote speech on the first day of the summit, which was attended by 2,500 industry players, K.C. Liu, Chairman and Chief Executive Officer of Advantech Co., Ltd., said the company's WISE-PaaS software platform has been designed with users of industrial IoT in mind. Based on Edge Computing, Liu said WISE-PaaS supports third party partners in developing comprehensive cloud-based service platforms and industrial IoT solutions. "Our company's mission is to combine software and hardware solutions to facilitate our customers and IoT cloud service providers in IoT solution deployment," said Liu. Concurrent with the keynote speeches were around 100 IoT-related sessions and seminars, where more than 50 partner-companies of Advantech presented innovative co-created applications in the industrial domain. In another room, Advantech showcased a wide variety of products, and partner companies displayed and demonstrated their co-created models in their respective booths. Panasonic Corporation presented their smart city initiative in China using Advantech's communications solutions and system development environment. This was designed in a bid to obtain U.S. WELL Building Standard certification, which evaluates building space that gives consideration to human health and wellbeing.



Strategies Chart Growth Opportunities in IIoT

A balance of market place and manufacturing activity will be achieved as manufacturing moves closer to the market, creating an industry eco-system and job opportunities. This, according to Chaney Ho, Executive Director of the Board at Advantech Co., Ltd., will be the hallmark of Globalization 3.0, as the world transforms from globalization to de-globalization. "The strategy response to Globalization 3.0 is to develop the manufacturing value chain closer to the end market and strengthen the intelligence capability of manufacturing," said Ho. "And to enable growth in the IoT ecosystem with Advantech as facilitator," he added, in reference to the company's 15-year co-creation business model. "There is a need to deploy IoT Phase II and Phase III to simplify and expedite the industrial IoT revolution and the continuing globalization path to become the IoT global leader."

Extending Solution Ready Packages

Advantech is making progress in innovating its IoT business model, not only by extending its Solution Ready Packages (SRPs) with partners to improve value creation, but also delivering value through working in concert with Domain-focused Solution Integrators (DFSI). The co-creation ecosystem creates a competitive advantage that is difficult to replicate. The milestone Advantech announced at the Summit is to have more than 60 SRP developers, around 80 DFSIs and over 1,000 VIP members of the WISE PaaS service in the next three years. The strategy is to provide its WISE-PaaS service, a cloud-enabled platform, at a very accessible price for its SRP partners during the growth stage. Advantech has also scaled down its venture capital activities to focus on investing in DFSIs and acquiring stakes in certain in IIoT start-ups. Eric Chen, Advantech President of General Management said, "The goal in 2021 is to achieve revenues of US$2.3 billion up from this year's (estimated) US$1.6 billion, an increase of 43 percent. It is estimated 87% (US$2 billion) will come from automation and embedded hardware products from Phase I, 7% (US$170 million) from Wise-PaaS platform & Service from Phase II, and 6% (US$130 million) from vertical market DFSI from Phase III." "Solid demand from the manufacturing sector; the rise of Edge computing; and global sales and services site expansion in Vietnam, Russia and the UK are three of the driving forces for Advantech in 2019," added Chen. Advantech revenue for FY2017 (January to December) reached US$1.455 billion. For January to September 2018 period, accumulated net sales totaled US1.23 billion, up 14% year-on-year. By Region, Europe,

North America and Greater China regions accounted for 78% of total revenue. They are also considered the best performing regions with growth rates of 25% for Europe, 16%for North America, and 14% for Greater China. By Business Unit (BU), Industrial IoT, Embedded IoT and Service IoT all enjoyed two digit growth. Industrial IoT and Embedded IoT contributed 81% in total to operating profit. Industrial IoT earned the highest gross margin among all business units at 45 to 50% gross margin range.

Plans in Major Markets

In 2018, Advantech took some initiatives in the Japan market. In March, it invested a 19% stake in Nippon RAD Inc. aiming to further expand the business scope in the IIoT sector. In October, the company acquired 80 percent stake of OMRON Nohgata Co., Ltd. to enhance localized manufacturing and design services capability and market coverage in Western Japan. Following the acquisition, Mike Koike, President, Advantech Japan said Japan sales could rise and take the fourth or fifth spot among markets. "The growth segment of the IoT market in Japan is factory automation and smart city. New areas such as medical, retail, logistic, electric vehicle charger and agriculture are growing fast too," said Koike.

One of the prominent co-creation businesses Advantech has entered in the Japan market with is with Mirai Co. Ltd., a vegetable provider to food companies. It has implemented its own IoT solution to monitor and control the cultivation and environment of the factory, as well as handle data collected from sensors covering 200 variables, including temperature, humidity, photo-synthesis, and water control, amongst others. "To be the best in a certain niche market, furthermore, the success model could be copied to another area and keep repeating the same approach. This represents Advantech's growth model." said Koike. In the United States, along with IoT, 5G and artificial intelligence (AI) mega trends will drive the industrial market in divergent stages. In explaining Advantech's strategy in the area, Ween Niu, General Manager, Advantech North America, said, "We will use a few dedicated sales teams to support different customers; focus on selected vertical market to extend market know-how; leverage different sales channel; and provide different services model to meet customer's logistic needs and services." Niu added that Advantech North America uses a so-called diversify business model in dealing with divergent market places that allows the company to seize more opportunities in North America. Parts manufactured in Advantech Kunshan factory account for 40% of Advantech North America revenues. For trade frictions between the U.S. and China which caused key accounts to be impacted by tariff increases, around 15% of the production cost has been offset by transferring the process to Advantech's Taiwan factory. The company plans to implement major facility upgrades in Advantech North America to be completed in the first half of 2019 to increase capacity by 40%. Another service center is at the planning stage as well as further expansion from 2020 to 2021. "Even though with tariff impacts, our target organic growth rate is between 12 to 15% per year, and the key here are the new net design-wins," said Niu. In Europe, Jash Bansidhar, Sector Head of Industrial IoT Europe at Advantech said, "European companies are also moving back their production from Asia to Europe. There are 2.1 million factories in Europe. The opportunity is starting to happen as IoT in manufacturing gains pace. In particular, automotive in manufacturing drives the growth in IoT in Europe." Advantech Europe handles 10 countries covered by 14 offices with one logistic center and one service center. To meet the rise of EU market demand in Industrial IoT, the company's primary strategy is a localized approach and increased presence through co-creation in sectors including manufacturing, transportation, and energy, amongst others. ■

Advantech IoT Co-Creation Summit:

Six Thousand Participants Co-create a Wonderful Life

"The challenges faced, lessons learned, and experience gained from organizing a summit with thousands of attendees not only broadens employees' professional horizons, but also supports their personal growth," said Gary Lee, Advantech Digital Marketing Manager.

By Advantech with images provided by Advantech

When the number of participants at the 2018 Advantech IoT Co-Creation Summit, which was constantly updated on the screen, broke 6,000 people, Digital Marketing Manager Gary Lee couldn't suppress the excitement in his heart. However, Gary started to get worried as the registration numbers continued to grow. Previously, Gary, who has participated in several digital marketing projects at Advantech Worldwide Partner Conferences in the past few years, never expected that his team would experience the huge pressure of reaching a large number of participants that exceeded, by several times, the historical records of past events.

This year, the team to which Gary belongs went beyond their duties to take over the job of registration and general affairs at the summit. This gave rise to huge challenges that Advantech had not encountered before. It was necessary to complete the registration of thousands of people in an orderly manner while planning for various emergencies that could occur during the course of the summit. Such a task would have been difficult even for a professional company that specializes in large events, not to mention the fact that Gary's team didn't have relevant experience with such large scale summits.

"By partaking in a summit with the scale of a 10,000-person concert, the challenges, learning, and transcendence we experienced during the course of participation not only expanded our horizon of career development, but also enhanced the personal growth that came along with it," said Gary.

For Advantech, the summit heralded the arrival of a second phase in the Internet of Things (IoT). However, for the Advantech members who participated in the planning, organization, and implementation of the summit, it was a rare opportunity for personal growth.

Challenge the Unknown

Advantech Chairman KC Liu presided over the summit and set the target number of participants at 6000. It is widely understood that summit content and activities are the two key factors attracting participants. However, before important summits, it is often difficult to predict which content and activities will have the largest impact in terms of participation numbers.

IoT.Sense Manager Jill Tseng and Brand Development and Public Relations Manager Jennifer Huang,, who were responsible for content and activity management at the summit, initially doubted whether they were capable of reaching the 6000 attendees goal set by CEO Liu. Nonetheless, after overcoming many difficulties and challenges, they came to realize that what can't kill them makes them stronger.

In order to attract enough participants, Jill worked extra hard to plan the overall summit theme, devised interesting and relevant content, and invited speakers capable of attracting a wide audience. After that, in order to bring the best experiences and benefits to the participants, a summit map was put together in which Corporate Marketing Xiayu and Jill provided both Chinese and English translations. Since changes in conference programs affected the conference map, the closer to the conference registration day, the more frequently the conference plan and conference map needed to be modified. These last minute changes tested the organizers' communication and coordination abilities.

For Jennifer, the difficulty of the summit project was not only to increase the number of participants but also to deal with the large number of invitations. Since the exhibitor invitation process was different than the process of sending regular invitations, the task not only required team members to coordinate and communicate with more exhibitors, suppliers, and other people and resources, but also required everyone to explore new ways of working through trial and error. "During the process of advancing the project, the communication, coordination, and activity management capabilities of the members participating in the project developed and evolved," said Jennifer.

Xiayu was the "housekeeper" of this summit who arranged the room and board for participants. Having been with Advantech for 11 years, she'd worked in various positions addressing product and brand marketing. When it comes to the working experience at the summit, Xiayu revealed, "Here at Advantech, everyone has the opportunity to experience brand new work every once in a while. New work content not only brings challenges but also brings a lot of fun and enjoyment. Because Advantech's senior members are always happy to share their skills and perspectives, newcomers can quickly master the working methods and apply them to new tasks."

Co-create a Wonderful Life

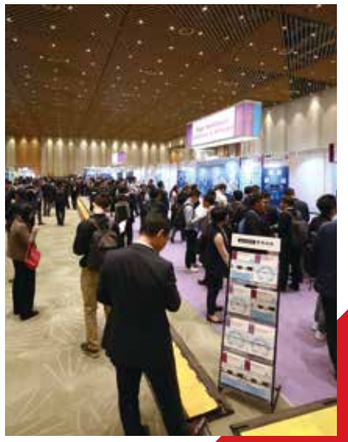
Marketing Supervisor Jielei, who was responsible for the onsite implementation of the summit, said, "Everyone is taking on a professional attitude to specialize in what they do best, to take feedback seriously, and to achieve the best results in the end. Therefore, although the summit was an opportunity, whether the individual can grasp this opportunity depends on his or her professional attitude."

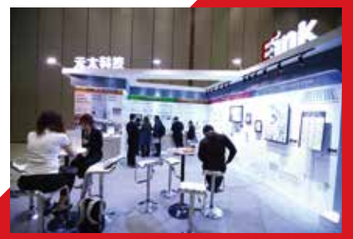
Jielei also pointed out that, "When a company incorporates an individual's goals into its vision, the realization of the individual's value is kept in the same direction as the realization of the company's value. Therefore, when the company successfully realizes a new phase of IoT, it will also bring the individuals to a new phase of their careers. As the company makes an even greater achievement, the individuals also grow accordingly which is a great joy as far as I am concerned."

Jielei continued, "Since co-creation is the theme of the summit, the summit itself is also the result of the work of hundreds of ordinary Advantech employees and Advantech partners. For Advantech, a company is not only a business organization that contributes to the world but also a platform where employees, shareholders and all stakeholders co-create a wonderful life together. Therefore, Advantech must not only become an innovative technology company but also create new opportunities for self-development of those Advantech individuals who work hard in ordinary positions, just like Jielei, Xiayu, Jill, Jennifer, and Gary, so as to practice the core concept of work, learning, and love, to co-create a wonderful life for all Advantech members." ■

Advantech IoT Co-Creation Summit:

An Exhibition with More than 170 Latest IoT Applications





In a joint effort with Arm, Intel, iSoftStone, Microsoft, and Renesas, Advantech set up more than 170 application display areas at the IoT Co-Creation Summit to showcase the latest IoT technologies and applications to the general public. Among them, 57 were from Advantech's SRP (Solution Ready Package) and DFSI (Domain-Focused Solution Integrator) co-creation partners. The Industry 4.0 thematic exhibition area showcased smart solutions for factories, machine learning, and equipment automation. The Environment & Energy thematic exhibition area showcased smart solutions for energy and environmental issues, self-healing grids, and detection technology driven by big data applications. There were also other thematic exhibition areas showcasing smart solutions for transportation, retail, logistics, healthcare, the embedded Internet of Things, and more. ■

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Wuhan, China	Nagoya, Japan	Munich, Germany
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What

Learn Your Interested Sectors and Solutions

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2. iFactory
3. Edge Intelligence and AI
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5. Smart City
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