

News from the World's Leading Industrial City Developer

Q3 2017



Amata Network makes the connection

In Thailand, conventional copper cables have sign uses optical fiber to replace conventional been used predominantly since the last century with copper cabling making up around 90% of broadband fixed-line connections. While fiberoptic cables can carry data at high speeds over long distances, copper cables used in traditional telephone lines and ADSL cannot. Fiber is said to be 'future-proof' because the data rate of the connection is usually limited by the terminal equipment rather than the fiber, allowing for substantial speed improvements by equipment upgrades before the fiber itself must be upgraded. Fiber-optic has the benefit of being able to carry much more data at high speed over long distance and being more reliable.

networks, from a central office to the end-users, where it is categorized according to where the optical fiber connection ends.

"And if placed underground, there is zerofailure, based on the experience I have", adds Watanagool. At Amata, the distribution of underground fiber-optic cables covers the whole estate, so each of the approximately 700 companies operating at Amata Nakorn can actually request their providers to switch to this state-ofthe-art cabling.



Chukiet Watanagool, Managing Director of Amata Network Company

by Symphony Communication, located at Amata's own Data Center Park. Power for the Amata Network is provided by Amata B.Grimm power plants from within the estate. On the long run, the new joint-venture business will support Amata's goal to turn the industrial estate into a smart city by providing smart solutions with regards to surveillance and security of public areas, measurement and data collection of resources and utilities, the overall improvement of communication, and more.

A new Ministry of Digital Economy and Society was established to be responsible for shaping, planning, and developing policies to transform Thailand into a digital economy, part of the Thailand 4.0 plan to turn the country's economy into a digital one. The digital economy refers to an economy that is based on digital technologies, which are rapidly transforming both business practices and social interactions. Imple-

Critical containment

Amata Data **Center Park**

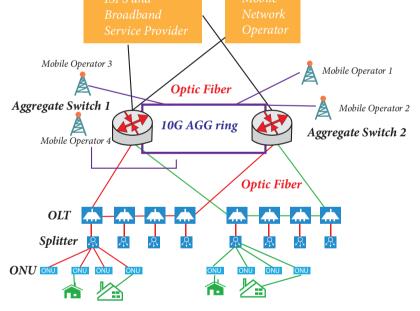
Modern-day business operations often require companies to remotely store, process, and/or distribute large amounts of computerized data as a part of their operations, and Amata Data Center Park is an optimal location for performing these all-important tasks.

The site is equipped with data center critical facilities, including redundancy and resiliency, to ensure operations will not be compromised if any part should fail. Amata Network Company serves the Data Center Park with fiber-optic cabling, securing zero-failure connectivity.

There are currently two businesses utilizing ADCP: Digital Port Asia Limited (Digital Port) and Symphony Communication PCL.

Symphony Communications PCL is a Thai company creating fiber-optic networks and supporting services throughout Thailand.

Last year, NTT Communications opened the top-scale Thailand Bangkok 2 Data



OLT (Optical Line Terminal) ONU (Optical Network Unit)

Fiber-optic connections are expected to make up 60% of the total fixed-line broadband market by 2019, due to an increasing demand for faster connectivity at more competitive rates and due to users' greater adoption of data-consuming applications and feature-rich devices.



Amata Network Company is already servicing ICT businesses operating at Amata Nakorn in Chonburi. Established in December 2016, the company, a joint-venture between Amata Corporation PCL. and Advanced Broadband Network Co., Ltd., completed construction in June of an underground fiber-optic network at Amata Nakorn and received its operations license in July.

But who are the customers of this new joint-venture? As Chukiet Watanagool, Managing Director of Amata Network Company, explains, "We designed the network by using FTTx concept to support Internet Service Providers and system integrators, as well as mobile phone operators." FTTx (Fiber To The 'x', or to the last mile) de-

Amata Network's fiber-optic cabling cover the estate, ready to be available to all tenants at Amata Nakorn.

Over seventeen Internet Service Providers (ISP) and mobile operators, servicing some 300 companies within Amata, have already switched over to Amata Network's fiber-optic systems since starting operations. The servers are located at Amata Service Center, and backup is guaranteed

mentation of the digital economy plan will need the support and involvement of all stakeholders in achieving its stipulated goals. With the new Ministry, together with policies from the Board

Continued Amata Network on Page 2

Center at Amata's Data Center Park The four-story facility, an investment of nearly USD32 million, has some 5,000 square meters of server room, equivalent to 1,400 racks. The data center is operated by Digital Port Asia Limited, a subsidiary of NTT Communications Thailand, which acquired a stake in 2013.

A key advantage of Amata Data Center Park is its safe, yet convenient, location, located at a prime site along the Bangkok-Chonburi Motorway, only about 60 kilometers outside of Bangkok. The park is surrounded by floodwalls and dikes, assuring low risk of flooding, and it offers purpose-built power supply and distribution systems, along with other data center critical infrastructure and facilities.

Amata Network

Continued from Page 1

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INTRODUCTION TO THAILAND'S MARKET

68.22 M	Population – Not fragmented
46.00 M	Internet User (67% penetration)
90.94 M	Mobile Subscription (133% vs. Population)
42.00 M	Active Mobile Social Users (67% penetration)
90%	Use Smartphone To Go Online
30%	Mobile Users 4G Subscription

"By 2018, Thailand will rank as the third-largest 4G market in Southeast Asia and Oceania, accounting for 40% of total mobile subscribes"

Thailand's digital market (source: Techsauce)

of Investment to drive innovation, the digital economy will make a significant contribution to Thailand's economy - estimated to contribute 25% to Thailand's GDP by 2027 – and is expected to play a critical role in every industrial sector in Thailand. Both soft and hard infrastructure is being developed to ensure the country is ready for the new digital era.

A national digital economy master plan, a national e-commerce master plan, and a plan to develop seven smart cities around the country were recently approved. With the leverage of information technology, the nation should benefit in many ways and improve people's lives, covering government services, e-commerce and marketing channels, internet accessibility and speed, or even medical services such as telemedicine, serving people in rural and remote areas. The digital economy plans will also cover restructuring and investment in human resources, operation, technology, and regulations. A special emphasis is given to developing the Eastern Economic Corridor (EEC) to become a center of smart manufacturing, education, and smart city projects. All the plans support the ultimate goal to bring Thailand into the 4.0 era, thus bringing social stability and economic wealth to the country.

Flood Risk Management Taking action for prevention



Recent flood-related disasters across Asia emphasize the need for an effective management of flood risks. In 2013, Amata Nakorn industrial estate was affected by flooding. Since then, Amata has worked to develop robust solutions that perform well in uncertain future conditions, such as extreme weather conditions as a result of global climate change.

Panthong canal has one permanent water gate, which is now supported by four temporary pumps (with a capacity of 3 m^3 per second). They remain installed and in operation until the middle of 2018. As a permanent solution, two more water gates, each equipped with three pumps with a capacity each at 6 cubic meters per second, are now being built for Panthong canal and will begin operation by mid-2018. There are two temporary pumps installed at Tamru canal water gate, each functioning at a capacity of 3 m³ per second.



Amata Vision

By Arsa Sarasin Chairman of Amata City Co., Ltd.

Globalization and Leadership

Globalization is the process whereby the advance- of these changes is central to the survival of an ment in communication and transportation has enabled the world to become more interconnected and integrated in multiple dimensions, whether culturally, commercially, or politically. Although the rise in connectivity between different regions of the globe is a phenomenon that has occurred since time immemorial, it is only in the past two centuries that this process has taken place at an exponential rate.

Globalization brings with it a set of new challenges, namely the increasing unpredictablity and mutability of the environment that surrounds us. In such an age, where conditions are always permeable and an organization or state is subject to changes often beyond its control, the quality of good leadership becomes more crucial than ever.

My leadership experience was forged at a time when Thailand was fully confronted by the challenges and opportunities associated with globalization. Throughout the various leadership roles I occupied at the Ministry of Foreign Affairs of Thailand in the 1980s and 1990s, Thailand was in the midst of a geopolitical situation that arose out of the conflict between global superpowers beyond its own control. During this period, I was able to acquire and learn about a few qualities that determine good leadership in the age of globalization. I would now like to share with you my own understanding of what it means to steer an organization through these turbulent waters.

First and foremost, the key value for solid leadership in a globalized world is the possession of vision. Vision is the ability to look ahead and understand where the priorities of an organization should be and what long-term goals it should set. It is a creative act since it requires us to use our imagination to picture our place in a future that is largely unknown.

Globalization has rendered the world we live in more unpredictable than ever. The state of the domestic economy might be affected by a banking crisis at the other corner of the globe while the political stability of a nation can be undermined by a refugee crisis in another continent with no always been valued in good leaders, but they relation to the internal policies of that nation. With the increase in unpredictability comes a greater difficulty in drawing up a plan for the future of an organization.

organization. However, alongside adaptability, I would like to put forward a more traditional quality of leadership that is perhaps even more crucial in a globalized world – integrity.

Globalization brings about the rapid rise and fall of new trends, fads, and frames of thinking. It is often difficult to remained firmly grounded amidst conflicting and ever-changing mindsets and value systems. Integrity, which is the quality of remaining true to oneself and one's original values, can provide a stable foundation in the constantly shifting landscape of the modern world. Integrity guarantees that a leader will not be led astray by the distractions of the globalized world, but will remain bound to the core ethics of the organization. The role of integrity, thus, highlights that good leadership is not only associated with practical ability, but also with moral character.

Finally, as all leaders must already be aware, the ability to helm an organization is not only drawn from personal leadership qualities, but depends just as much on one's relationship with employees and colleagues in the organization. Crucially, good judgment, when it comes to delegating roles and duties, is required. In short, this is known as the ability to put the right man to the right job. This is more so the case given the backdrop of globalization.

Globalization has given rise to new markets, new sectors of the economy, and new forms of media. This broadening of an organization's capacity and roles means that a single person can no longer be an expert in the fields in which the organization is involved. Thus, the knowledge and application of each person's strengths and advantages has become an even more pressing issue for the modern leader. A good leader in the globalized age, therefore, knows how to make the most of his limited resources in a world where he is confronted with seemingly limitless demands and opportunities.

In conclusion, I have presented to you three cornerstones of good leadership - vision, integrity, and the ability to delegate. These qualities have are demanded in the age of globalization more than ever before. Although they are only some amongst many other qualities required to be a good leader, they provide a solid foundation on which those other qualities and traits of leadership can be nourished and encouraged.

Flood risk management needs to recognize the interconnections between infrastructures, economic systems, and the role of human factors in assessing and managing the risk. Amata is taking on the responsibility alongside other parties that have a role to play in managing floods, chiefly the Thai Irrigation Department and local municipalities around Amata Nakorn.

Almost eighty percent of water that passes north through Amata Nakorn is captured by Panthong canal, and Tamru canal to the northwest of Amata Nakorn also captures some excess water supply.

The effectiveness and efficiency of pumps is regularly assessed and will be increased if needed. Amata's role is not only to assess risk areas and coordinate action across the public bodies, but to actually finance any necessary investments. Amata supports the budget for these new countermeasures, including electricity supply.

For more information, please contact Amata Facility Services Company at +66 (0)38-939-007.

The ability to predict global trends should become more valued than ever in a world where a growing number of tenuously related factors are clouding our grasp of the future. The globalized world is, thus, in real need of vision, since with vision, one is able to look ahead with some clarity, in spite of the processes that are obscuring our sight.

A quality that is often associated with leadership in the globalized world is adaptability or flexibility. With the constantly changing environment of the world today, it is clear that the ability to swiftly accommodate and flourish in the midst

Finally, having referred to these three qualities, I would also like to mention that throughout the ages, good leaders have held on to a very valuable principle - to put the greater good above one's own personal gain. This principle has been adhered to throughout the ages, from ancient times to the globalized world we now live in. I, therefore, firmly believe that with this principle in mind, coupled with the three qualities discussed, we have the blueprint of a leader who can confidently navigate an organization to more prosperous shores.



With the opening of SISA (Sirasartsuksa Amata School) at Amata Nakorn Industrial Estate in Chonburi, the foundation is being built for quality, international-level education from nursery to tertiary education in the long run. SISA was created by an initiative of Amata to make international education accessible to children of families with parents working in or living around Amata Nakorn. The school is to provide English-program education that meets today's requirement of children becoming environmentally-responsible, knowledgeable, and creative global citizens.

In KinderWorld Education Group (KEG), Amata found the ideal partner. KEG opened its first pre-school in Singapore in 1986 and continues to deliver a comprehensive education program to students. All schools under KinderWorld Education Group adopt a unique curriculum that draws the best international curriculum from Singapore, Australia, United Kingdom, and the United States. KEG operates the brand names of Singapore International School (SIS), Singapore Vietnam International School (SVIS), Kinder-World International Kindergarten (KIK), and Pegasus International College (PIC) in Vietnam and UniWorld International School in Malaysia, providing education from Nursery to Higher- and Continuing Education.

SISA Quality education for students to become global citizens



In 2016, Amata KinderWorld Education took over the operations of YWCA Amata Nakorn Branch, providing Nursery to Primary 1 level education and renaming it to SISA. The school premises and buildings were renovated to create a vibrant learning environment and a happy, positive community. Progressively, new buildings that comprise educational blocks for high school up to college will be built in the later phases that will eventually provide an educational pathway for students up until Tertiary Education.

From school year 2017 onwards, SISA is moving towards becoming an English Program (EP) school. Four new activity classes will be added to meet criteria required to obtain the necessary EP licensing from the Department of Education: Arts and Science, Computer, Library, and Music. Likewise, English program classes will be increased, and the following subjects will be taught in English: English Conversation, Math, Science, Educational Games, and Physical Education. These subjects will be taught by native English language foreign teachers and by Filipino English primary-language teachers. As well, Chinese language classes will be introduced from nursery upwards.

Plans for the new school year 2017 also include introducing an Eco Club gardening project that ties in with science lessons for the children to become globally responsible citizens. Fruits, vegetables and herbs will be grown in the garden as well. Additionally, Stumpf Amata Energy Company has installed solar panels on the roof area. It reflects our idea to create a green environment and to further create awareness and educate students on being environmentally responsible citizens.

SISA's mission is "to be a forward looking education institution embracing innovative teaching pedagogies in a creative and challenging environment and instituting life-long learning to enable students to reach their fullest potential". SISA believes that education should equip our students with the essential knowledge and skills needed for a technology-driven and globalized world and, at the same time, preserve and nurture the significant values and cultures of Asia.

SISA's mission beautifully reflects Amata's longterm vision and ideologies. We plan for our industrial cities to become true communities, attracting business, people, and nature to thrive together.

For more information or inquiries, please contact Stephen See, General Manager, +66 (0)38-111-007, *stephen.see@kinderworldgroup.com*.



News from Amata Vietnam

Schaeffler Vietnam, a subsidiary of Germany's global automotive and industrial supplier Schaeffler Group, signed an agreement with Amata City Bien Hoa for the lease of some 50,000 square meters of land to expand its facilities. Schaeffler Vietnam employs about 200 people and is proud to introduce and offer the best portfolio of industrial bearings, related components, complete bearing installation, and maintenance services to end-users in Vietnam. *www.schaeffler.com*





Kishino Yasuhiko, General Director, Tombow Manufacturing Asia Co., Ltd., on the right, is seen with Sudo Osamu.

Amata also congratulates Fulin Plastic Industry Co., Ltd. on its ground-breaking ceremony for its second factory and wish ongoing success.

And we welcome Daiwa Kenkozai Vietnam Co., Ltd. from Japan to the Amata family. Daiwa Kenkozai will be manufacturing equipment and tools made of metal for construction and civil works, such as ladders, roof ladders, hanging rings, and other similar products at an Amata ready-built factory.



Park Seung Hun, General Director of Schaeffler Vietnam Co., Ltd., exchanges the agreement with Amata's Senior Sales and Marketing Manager, Sudo Osamu. Japanese company Tombow Manufacturing Asia Co., Ltd. has signed a property lease agreement for some 70,000 square meters of land at Amata City Bien Hoa Industrial Park. Tombow Pencil, the parent company with headquarters in Tokyo, was established in 1913. Tombow produces a wide range of stationery with modern, fun, and functional designs. We would like to welcome Tombow to the Amata family and wish you every success! *www.tombow.com*

Otsuka OPV Joint Stock Company, the Vietnamese subsidiary of Otsuka Pharmaceutical Factory Inc., Japan, announces the construction of a new factory for the distribution of high quality intravenous (IV) solution products. The products manufactured in the new factory will be distributed within Vietnam and neighboring countries with a view to expand distribution in the future.

The Otsuka Group started its overseas operation of IV/infusion

product business in the 1970s and currently operates fifteen companies in Asia, distributing products to approximately 75 countries worldwide. Construction of the new factory is planned to start in January 2018, and when finished, the company expects to have around 230 employees.

We thank Otsuka OPV for choosing Amata and wish you the best of success. www.otsukaopv.com.vn/en



In June, Amata organized a "Human Resource Link" Program. Participants included representatives from the government sector, such as from the Dong Nai Industrial Zones Authority (DIZA) under the Department of Labour, Invalids, and Social Affairs; companies operating at Amata Industrial Park; labor recruitment firms; education institutes including universities, colleges, and vocational schools; and more than 300 freshly-graduated and soon-to-graduate students.

The event opened the chance for students to connect with companies seeking new talents and offered education institutes, businesses, government sector, and recruitment firms to share information about the supply and demand of human resources and to discuss measures on how to develop human resources. Mitsubishi Elevator Asia Co., Ltd. (AMEC) Thailand, which produces elevators and escalators for domestic and overseas markets, completed a new 68.3-meters-high elevator test tower at their manufacturing facility at Amata Nakorn Industrial Estate in Chonburi. AMEC will use the new tower for enhanced testing and evaluation functions that are expected to accelerate local product development. "The company decided to build a taller test tower to evaluate medium- and highspeed models in response to trends of constructing higher buildings, and to develop specialized models for expanding in existing markets," says Hideaki Kodera, President of Mitsubishi Elevator Asia. And he adds, "By strengthening local development capabilities, we expect to reduce cost and lead times."

Specific activities planned for the new test tower include the development and testing of electric and mechanical systems for high-speed elevators and of technologies for suppressing vibration and noise that may occur while travelling high speed, performance and endurance of parts and equipment, and testing of safety systems, etc.

To meet growing demand and to respond to requirements in specific markets with tailored product features and designs, AMEC upgraded its development and engineering capabilities by

Customer News

To The Sky *Mitsubishi's new elevator test tower to* accelerate local product development





establishing an R&D center in October 2015 and expanded its production capacity by 50 percent to 20,000 units by opening a new factory in May 2016.

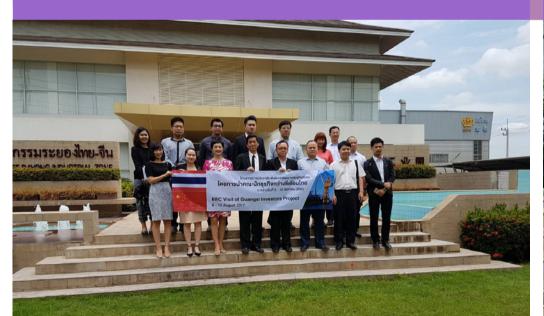
Mitsubishi Elevator Asia started operation in Thailand in 1991 and employs about 2,500 people. The company is fully owned by Mitsubishi Electric Group, Japan.

www.MitsubishiElectric.com

Relationship Management News

Guangxi Business Delegation

Exclusive Dinner with Amata's CEO





The delegation poses in front of the Thai-Chinese Rayong Industrial Zone Office at Amata City (Chairat Porntipwarawet, front row, fifth from left; Qiu Li, General Manager Thai-Chinese Rayong Industrial Realty Development Co., Ltd., front row third from left)

Chairat Porntipwarawet, Consul General at the Royal Thai Consulate General in Nanning, P.R. China, accompanied a group of businessmen on their recent visit to Thailand, including Amata City Industrial Estate in Rayong, where Chinese Holley Group, in joint-venture with Amata City Company has developed a special zone for investors from mainland China. The zone offers both industrial land for sale or lease and ready-built factories for quick start-up.

In August, invitations to a dinner meeting with Amata's CEO Vikrom Kromadit were extended to customers from P.R. China. A cheerful group of top management from approximately 45 companies accepted and met over fine food and good talks at the Amata Castle in Chonburi.





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