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Electronics - Quantum Electronics; Researchers at Nanjing Normal University Report New Data on Quantum Electronics (Nano-displacement Measurement System Using a Modified Orbital Angular Momentum Interferometer)

489 words

5 April 2022

Electronics Newsweekly

ELECWK

755

English

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2022 APR 5 (VerticalNews) -- By a News Reporter-Staff News Editor at Electronics Newsweekly -- Research findings on Electronics - Quantum Electronics are discussed in a new report. According to news originating from Nanjing, People's Republic of China, by VerticalNews correspondents, research stated, "In this study, a nano-displacement measurement system is proposed and demonstrated both theoretically and experimentally, which was based on a modified Mach-Zehnder (M-Z) interferometer using two conjugated orbital angular momentum (OAM) beams. In contrast to the previous M-Z-based OAM interferometer, a reflection module is inserted into the reference arm instead of a simple mirror."

Funders for this research include Natural Science Foundation of Jiangsu Province, Natural Science Research of Jiangsu Higher **Education** Institutions of China, National Natural Science Foundation of China (NSFC), KDDI Corporation, Yazaki Memorial Foundation for Science and Technology, Japan.

Our news journalists obtained a quote from the research from Nanjing Normal University, "As a result, the effect of the transverse position-dependence phase-shift caused by the dove prism can be clearly eliminated and a stable and robust (off-axis insensitive) petal-like interference pattern can be obtained successfully. More importantly, a significant rotation angle of the petal-like pattern vs. the tiny displacement of the tested object can be clearly observed. In accordance with the modified measurement setup, a novel phase-demodulation method enabling to quickly and accurately characterize the rotation angle of the petal-like interference-patterns is proposed and demonstrated also. A tiny displacement ranging from 50 to 800 nm with resolution of similar to 50 pm has been measured successfully."

According to the news editors, the research concluded: "The proposed approach may find applications in not only the ultra-high precision displacement sensor, but also the temperature, strain, and refractive index sensors."

This research has been peer-reviewed.

For more information on this research see: Nano-displacement Measurement System Using a Modified Orbital Angular Momentum Interferometer. IEEE Journal of Quantum Electronics, 2022;58(2). IEEE Journal of Quantum Electronics can be contacted at: Ieee-inst Electrical Electronics Engineers Inc, 445 Hoes Lane, Piscataway, NJ 08855-4141, USA. (Institute of Electrical and Electronics Engineers - www.ieee.org/; IEEE Journal of Quantum Electronics - ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=3)

The news correspondents report that additional information may be obtained from Hua Zhao, Nanjing Normal University, School of Computing and Electronic Information, Nanjing 210023, People's Republic of China. Additional authors for this research include Huali Lu, Yuanyuan Hao, Chenji Guo, Xunhua Huang, Hui Hao, Dongmei Guo, Wanchun Tang, Peng Wang and Hongpu Li.

Keywords for this news article include: Nanjing, People's Republic of China, Asia, Quantum Electronics, Electronics, Nanjing Normal University.

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Technology - Cybernetics; Reports on Cybernetics from Muroran Institute for Technology Provide New Insights (Exponential Stability of Mixed Time-delay Neural Networks Based On Switching Approaches)

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Journal of Mathematics

JMATH

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2022 APR 5 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Mathematics -- Current study results on Technology - Cybernetics have been published. According to news reporting originating from Hokkaido, Japan, by VerticalNews correspondents, research stated, "Neural networks (NNs) have been deeply studied due to their wide applicability. Since time delays are unavoidable in reality, it is basic and crucial for all applications based on NNs to guarantee system stability under the influence of mixed time delays."

Funders for this research include National Natural Science Foundation of China (NSFC), Fundamental Research Funds for the Central Universities, China Scholarship Council, Grants-in-Aid for Scientific Research (KAKENHI), Leading Initiative for Excellent Young Researchers (LEADER), Ministry of **Education**, Culture, Sports, Science and Technology, Japan (MEXT), KDDI Corporation.

Our news editors obtained a quote from the research from Muroran Institute for Technology, "To better exploit the variation information of time delay, we introduce the switching idea and approaches into mixed time-delay NNs to solve the stability problem. First, the considered mixed time-delay NNs are modeled as the switched NNs by dividing the two classes of time delays, discrete and distributed time delays, into some variable intervals and combining these intervals as new switching modes. With the help of mode-dependent average dwell-time switching, Lyapunov theory, and mathematical techniques, several exponential stability criteria on the modeled switched systems containing different modes are obtained. Moreover, via introducing the mathematical condition of the unstable subsystem in the switching system, a less conservativeness condition on the exponential stability of the modeled NNs is proposed."

According to the news editors, the research concluded: "We perform three examples for testifying the validity of the proposed methods over existing ones."

This research has been peer-reviewed.

For more information on this research see: Exponential Stability of Mixed Time-delay Neural Networks Based On Switching Approaches. IEEE Transactions on Cybernetics, 2022;52(2):1125-1137. IEEE Transactions on Cybernetics can be contacted at: IEEE-Institute of Electrical and Electronics Engineers Inc, 445 Hoes Lane, Piscataway, NJ 08855-4141, USA.

The news editors report that additional information may be obtained by contacting Mianxiong Dong, Muroran Institute for Technology, Dept. of Information and Electrical Engineering, Muroran, Hokkaido 0508585, Japan. Additional authors for this research include Xiaoyu Zhang, Degang Wang, Hongxing Li and Kaoru Ota.

Keywords for this news article include: Hokkaido, Japan, Asia, Cybernetics, Technology, Mathematics, Networks, Neural Networks, Muroran Institute for Technology.

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ScaleOut Software Announces New Execution Platform for Redis Clients

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Business Wire

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English

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Community Preview Release Demonstrates Breakthroughs in Ease of Use, Scaling, and Automated Recovery for Redis Clients

BELLEVUE, Wash. --(BUSINESS WIRE)--March 29, 2022--

ScaleOut Software today announces support for Redis clients in ScaleOut StateServer(R) Version 5.11 as a community preview. With this release, Redis users can harness the company's flagship distributed caching product to connect to a cluster of ScaleOut servers and execute Redis commands. This integration of Redis open-source software with ScaleOut StateServer adds breakthrough capabilities for Redis users by dramatically simplifying cluster management, enabling seamless throughput scaling, and automating recovery from server and network outages. Targeted at enterprise users, ScaleOut StateServer now offers important new capabilities and the potential for substantial cost savings over competing commercial Redis products.

Redis clients can connect to a ScaleOut StateServer cluster in the same way that they connect to a Redis cluster and by using the same RESP protocol. This version implements all Redis data structures (strings, sets, sorted sets, lists, and hashes), as well as transactions, publish/subscribe commands, and utility commands. This release does not include support for streams, modules, LUA scripting, and AOF persistence. Redis support incorporates open source Redis version 6.2.5 code to process Redis commands, and it offers the flexibility to run on either Linux or Windows servers.

Unlike open-source Redis, ScaleOut StateServer implements fully consistent updates to stored data. In addition, ScaleOut StateServer's native APIs run alongside Redis commands and incorporate advanced features, such as data-parallel computing, streaming analytics, and coherent, wide-area data replication that are not available on open source Redis clusters.

Key capabilities include:

- Actual Redis Open-Source Code: ScaleOut StateServer has integrated Redis version 6.2.5 into its software architecture to manage stored data as a single Redis database and to execute all Redis commands. Results produced by Redis commands are identical to those from a Redis open-source server.
- Dramatically Simplified and Enhanced Cluster Management: ScaleOut StateServer automatically manages all cluster operations, including hashslot creation, load-balancing, data replication, failure detection, and recovery. It distributes Redis hashslots across a server cluster and redistributes them as servers are added or removed. It also uses fully coherent cluster membership to detect server or network outages, rebalance workloads on surviving servers, and create additional replicas to maintain redundancy of stored data.
- Advanced Client Management: ScaleOut StateServer simplifies client applications by always providing clients with accurate information about the location of hashslots. It automatically stalls client commands while hashslots are in motion to avoid client-side exceptions and ensure that clients always see a seamless cluster view.
- Multi-Threaded Architecture: ScaleOut StateServer's multi-threaded architecture automatically uses all processing cores to accelerate the execution of Redis commands. This eliminates the single-threaded bottleneck created by Redis' event-loop architecture and avoids the

complexity of deploying additional "shards" to boost throughput on each server.

"We are excited to provide a new execution platform for Redis clients with ScaleOut StateServer to meet the needs of enterprise users," said Dr. William Bain, ScaleOut Software's CEO and founder. "By incorporating this technology, Redis users can take advantage of ScaleOut StateServer's industry-leading features for cluster management to both reduce their operating costs and gain full consistency for stored data."

Benefits of Redis Support on ScaleOut StateServer

Incorporating Redis into ScaleOut StateServer's offers these key benefits:

- Battle-Tested Software Architecture: Developed over more than 19 years and proven in hundreds of mission-critical deployments, ScaleOut StateServer's software technology was designed from the ground up for transparent throughput scaling with integrated high availability and maximum ease of use. In contrast, Redis was conceived as a single-server, data structure store and later enhanced to add clustering features.
- Full Data Consistency: Unlike Redis clusters, which employ an eventual consistency model for updating stored data, ScaleOut StateServer implements full data consistency using a patented, quorum-based algorithm. This ensures that the caching cluster never serves stale data after a server fails and matches the needs of business-critical operations.
- Transparent Throughput Scaling: By employing a multi-threaded software architecture to execute Redis commands, ScaleOut StateServer automatically scales its performance to take advantage of the processing cores on each server. In contrast, Redis uses a single-threaded event loop and requires that multiple "shards" be deployed on each server to increase processing throughput.

For more information, please visit www.scaleoutsoftware.com and follow @ScaleOut_Inc on Twitter.

Additional Resources:

-- New Execution Platform for Redis Clients Blog Post

--

ScaleOut Software Redis Support Product Page
About ScaleOut Software

Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in-memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon.

View source version on businesswire.com: <https://www.businesswire.com/news/home/20220329005338/en/>

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iPrice Group Raises \$5M From Japanese Conglomerates Itochu Corporation and KDDI Corporation

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GlobeNewswire

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iPrice Group Raises \$5M From Japanese Conglomerates Itochu Corporation and KDDI Corporation

KUALA LUMPUR, Malaysia, March 22, 2022 (GLOBE NEWSWIRE) -- iPrice Group, Southeast Asia's leading price comparison **platform** helping online shoppers save money, announced today that it has raised \$5 million of additional **funding**.

The capital was raised from Japan-based firms Itochu Corporation and the KDDI Open Innovation Fund III (operated by Global Brain Corporation).

The additional funding will bolster iPrice's role in finding shoppers the best deals as Southeast Asia's e-commerce market becomes increasingly difficult to navigate.

A Facebook and Bain & Company report indicates that in 2021, the number of platforms used by SEA digital consumers has steadily risen to 7.9 websites per user on average, nearly 52% more than 2020.

This trend creates a reinforced need for a curated catalogue to provide transparency across platforms and help users save money among multiple marketplaces. iPrice addresses this need by aggregating the best offers from more than 7 billion products and 8 million sellers on a single platform.

"Besides comparing products, prices, sellers' reputations, and delivery conditions, we are continually deepening our expertise to help shoppers in various ways - be it aggregating seller vouchers, creating an app that alerts users of their desired products' price drops, or finding the cheapest loans to fund their purchases," said iPrice Group CEO Paul Brown-Kenyon.

As the newest addition, iPrice recently launched a Price Watch service allowing users in Indonesia to receive alerts of their desired products' price drops directly at the iPrice App. The service will continue to roll out in Singapore, the Philippines, Malaysia, Vietnam, and Thailand throughout 2022.

With the new funding, iPrice will expand its services to the lending market by helping users find not only the best e-commerce offering but also the best consumer loans to fund their purchases. A Google report predicts that digital lending will hit \$92 billion in transactions by 2025 due to its current acceleration in Southeast Asia, and the leading comparison platform intends to meet consumer demand.

That said, iPrice is excited to welcome Itochu as part of the capitalization table. Although known for its trading operations, Itochu has vast experience in the area of lending and operates a lending business in Indonesia under the brand Payku.

"We're very excited that we can leverage our investors' extensive lending experience. The first step in our strategic cooperation will be adding Itochu's subsidiary, Payku, as a key lending partner in Indonesia. Their expertise will be vital as we further penetrate the lending market," added Brown-Kenyon.

Aside from Payku, iPrice's other lending partners include Home Credit (Indonesia), Julo (Indonesia), Cashalo (Philippines), Smartpay (Vietnam), and ZIP (Singapore, launching in H1 2022).

iPrice Group is Southeast Asia's leading online shopping companion, operating in seven countries across Southeast Asia namely Malaysia, Singapore, Indonesia, Thailand, Philippines, Vietnam, and Hong Kong.

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Related Images

Image 1: iPrice Group Leadership Team

(L-R) Paul Brown-Kenyon, CEO, David Chmelař, Co-Founder & Executive Vice-Chairman and Heinrich Wendel, Co-Founder, CTO & CPO.

This content was issued through the press release distribution service at Newswire.com.

Attachment

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iPrice Group Leadership Team
(END)

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Feb 21 Release: KDDI<9433.T>

665 words

3 March 2022

R & I - News Release

JBRI

English

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Rating and **Investment** Information, Inc. (R&I) has announced the following:

KDDI Corp. Issuer Rating: AA-, Affirmed Rating Outlook: Positive, Changed from Stable

RATIONALE:

KDDI Corp. is a comprehensive telecommunications carrier that primarily provides mobile communications services which have the second-largest market share in Japan. The KDDI Group also offers a number of other services including fixed-line communications, high-speed internet connection and cable television services.

The environment surrounding the domestic mobile telecommunications business, which forms an earnings pillar, is becoming increasingly harder due to competition to acquire new customers intensified by new entrants in the market, the implementation of new price plans for low data volume, and other factors. Amid such circumstances, KDDI has been preventing customers from switching to other services outside the KDDI Group, owing to the effect of its multi-brand strategy whereby it offers several brands with varying price ranges, with a focus on its "au" brand. The company has also been maintaining per-customer revenues mainly by providing mobile telecommunications customers with multiple services including those in non-telecommunications fields. In addition, the corporate customer area and the life design domain, primarily financial services, have been strengthened steadily. As exemplified by a projected slight profit increase to 1,050 billion yen in operating income and 1,810 billion yen in EBITDA for the fiscal year ending March 2022, KDDI's profit and cash flow generating capacities are being enhanced.

On the back of strong business performance, profits have been accumulated and equity capital is abundant enough for the rating. Although the expansion of financial services has pushed up the consolidated total assets, there are no problems with the debt-equity structure and debt redemption period centered on the telecommunications business. The overall company's financial position is also sound, in R&I's view.

In light of progress in reinforcing its earnings base, R&I has affirmed the Issuer Rating at AA- and changed the Rating Outlook to Positive. A rating upgrade will be considered if R&I confirms that the company has a capability to secure stable profits and cash flow even in a continued severe business environment where, for instance, communication fees are under downward pressure.

The primary rating methodologies applied to this rating are provided at "R&I's Basic Methodology for Corporate Credit Ratings" and "Telecoms". The methodologies are available at the web site listed below, together with other rating methodologies that are taken into consideration when assigning the rating.
https://www.r-i.co.jp/en/rating/about/rating_method.html

R&I RATINGS: ISSUER: KDDI Corp. (Sec. Code: 9433) "R&I's Basic Methodology for Corporate Credit Ratings [Jun. 01,2021]". "Telecoms [Aug. 17,2018]".

For rated entities, please refer to R&I's website at <https://www.r-i.co.jp>.

Credit ratings are R&I's opinions on an issuer's general capacity to fulfill its financial obligations and the certainty of the fulfillment of its individual obligations as promised (creditworthiness) and are not statements of fact. Further, R&I does not state its opinions about any risks other than credit risk, give advice regarding investment decisions or financial matters, or endorse the merits of any investment. R&I does not undertake any independent verification of the accuracy or other aspects of the related information when issuing a credit rating and makes no related representations or warranties. R&I is not liable in any way for any damage arising in relation to credit ratings (including amendment or withdrawal thereof). As a general rule, R&I issues a credit rating for a fee paid by the issuer. For details, please refer to <https://www.r-i.co.jp/en/docs/policy/site.html>.

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Japan - Mobile Phones - Five Forces

3,131 words

28 February 2022

MarketLine Industry Profiles

DMRP

English

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The mobile phones market will be analyzed taking mno's and mvno's as players. The key buyers will be taken as consumers and businesses , and mobile phone manufacturers, government organizations and mobile **infrastructure** businesses as the key suppliers.

There is a high degree of rivalry within the Indian mobile phones market. There are just a handful mobile network operators (MNO) that provide cellular and mobile broadband services across Japan, including large brand names such as NTT Docomo, KDDI Corporation, Rakuten, and SoftBank. These companies are highly competitive with each other, providing the same core wireless services, making it difficult to differentiate from each other. Market consolidation and the roll-out of 5G technology has intensified rivalry in recent years.

There is little threat from new entrants as a result of the high cost associated with cellular infrastructure and maintenance, as well as the limited availability and access to spectrum – radio frequencies allocated to the mobile industry and other sectors for communication over the airwaves.

Buyers, which include end-consumers, have limited choice when choosing their mobile network and weak financial power means their bargaining power is weak. Smartphones are becoming integrated parts of everyday life, particularly in developed markets. However, consumers are price sensitive and have a tendency to switch to the most affordable mobile packages.

Supplier power is strong. MNOs have limited options when securing suppliers of mobile devices and 5G infrastructure companies. However, changing consumer trends have meant players rely less on mobile handsets to drive sales, which has reduced expenditure on mobile phone suppliers.

Alternatives to mobile phones are limited. Fixed line services are the only reasonable substitute but lack mobility and many of the attractive features associated with mobile phones, such as high-quality cameras, access to social media, and entertainment applications.

This market consists of large mobile network operators (MNO) and mobile virtual network operators (MVNO) that sell post-paid and prepaid mobile subscriptions to the end user. These companies tend to serve millions of customers. In the Japanese market, there are four MNOs (NTT Docomo, KDDI Corporation, Rakuten, and SoftBank) that serve that majority of consumers. Market leading MNO NTT Docomo serves around 83 million mobile subscribers. The large number of potential customers weakens buyer power, as individual buyers have little influence on the performance of the business.

MNOs benefit from their wireless network infrastructure, which it sells to MVNOs, which lease mobile coverage and data bandwidth at wholesale prices and then resell mobile services to customers at wholesale prices. MVNOs wield little buyer power, as leasing infrastructure is the only way the companies can operate mobile services. High fixed costs and limited radio wave spectrum prevent MVNOs from backward integrating and creating their own mobile infrastructure. The presence of MVNOs in the market increases the buyer power wielded by the end consumer by increasing the number of available mobile brands, which encourages competition. However, many of these brands are owned by larger MNOs.

Buyers usually display little loyalty to mobile operators and often shop around for the best valued deal before committing to a new mobile contract. This increases buyer power and forces MNOs and MVNOs to compete and offer consumers better value mobile deals. Many mobile operators record churn rate, the rate at which customers stop doing business with a company over a given period.

Switching mobile provider is relatively easy and sometimes cost free, particularly for prepaid subscribers that pay for the services they use and are not locked into lengthy contracts. However, for post-paid customers, mobile service providers can often charge exit fees if a consumer chooses to upgrade or switch to an alternative provider before their mobile contract has ended. At present, Japanese mobile users wishing to switch mobile carrier are required to purchase a MNP reservation number issued by the current provider, this typically costs the user JPY3,000 (\$28.50). As a result, buyers only tend to switch when a cheaper deal is available.

Market players generally provide the same wireless services, including calls, texts, access to data and data roaming. However, network operators often try to differentiate their products to appeal to end-users and increase their market share. Convergence plans have become increasingly popular, combining mobile services with broadband and TV services to create a more valuable product for customers. Demand for mobile data is growing rapidly and new technologies cause consumers to consume more data than ever before. This has caused players to create more data centric mobile packages, including unlimited data plans, often competing on price. The end-consumer is highly price sensitive and often searches for the cheapest deals. New phone models help encourage customers towards higher value mobile plans; however, generally, consumers search for plans with high data allowances at low costs. This price sensitivity increases the consumer's tendency to switch and increases buyer power, as operators often have to find ways to reduce costs, to create more competitive mobile packages.

While mobile phones are not essential for survival, they are considered an essential item by many people, particularly in developed markets where mobiles have become integrated parts of everyday life. According to the GSMA, the mobile subscription penetration rate reached 87% in 2020 in Japan, with smartphone penetration lower at approximately 68%, indicative of a growing demand for and dependency on mobile phone services.

Overall, buyer power is assessed as weak.

Mobile phone manufacturers are some of the most significant suppliers for mobile service providers. Large mobile companies, such as Apple, Samsung, and Huawei, sell products directly to consumers, but generate the majority of sales through indirect distribution channels, including third party mobile network carriers, wholesalers, retailers, and resellers. Mobile carriers usually purchase handsets upfront and receive an inflow of cash to cover the cost of the handset over the length of the contract. Alternatively, carriers can also sell handsets as a third party seller and then offer SIM contracts, which allows consumers the freedom of choice when choosing their mobile phone and contract.

In recent years, consumer habits have changed, causing the elongation of the handset upgrade cycle. Consumers are holding onto their phones in response to new smartphone releases becoming increasingly expensive, with less notable improvements. As a result, mobile carriers have experienced a decrease in wireless equipment expenses as sales are driven by data centric mobile plans instead of new mobile releases. This has weakened supplier power, with mobile carriers becoming less reliant on new handset models to drive sales.

Infrastructure costs are high and essential for mobile network operators to maintain operations. Building network infrastructure requires supplies of building materials, software development, and other advanced technologies used for communication services. The emergence of 5G technologies has increased supplier power as network operators compete to launch the most advanced 5G networks with the largest coverage. This is expected to be detrimental to future business growth over the forecast period as 5G technologies facilitate consumers' growing demand for data. 5G infrastructure, such as radio access units, are built by a limited number of companies. Finnish firm Nokia, Sweden's Ericsson, and Chinese mobile manufacturer Huawei are the main providers of 5G technology. In 2018, Japan decided to exclude Huawei Technologies and ZTE, two Chinese telecom equipment suppliers, from public procurement following growing concerns about security breaches that already prompted the US and some other countries to ban the two Chinese companies from supplying network infrastructure products. Because of the small number of available suppliers, the failure of any part of the supply chain, such as suppliers or distributors, may have an adverse effect on the business and financial condition of each market player.

Mobile network operators also rely on a supply of radio wave spectrum, a specific frequency allocated to the mobile industry and other sectors for communication over airwaves. Spectrum is a sovereign asset; therefore, the government or designated national regulated authority is responsible for its allocation. In Japan, the Ministry of Internal Affairs and Communications is the body that promotes and ensures the proper operation of all markets in the interest of consumers and corporations. This includes the regulation of the telecommunications market and the distribution of available spectrum for mobile network operators. While the government receives a significant amount of revenue from leasing spectrum to mobile operators, the cost is usually reasonably priced to prevent the inflation of mobile phone costs for the end-consumer. However, spectrum is a finite resource and access to radio frequency can help determine the market position of a mobile network operator, making it one of the most valuable supplies in the market. The Ministry of Internal Affairs and Communications in Japan held a 5G spectrum auction in April 2019, which awarded all four Japanese MNOs a share of the available spectrum.

Overall, supplier is assessed as strong.

Entry into the Japanese mobile phones market is limited by high fixed costs and the existence of strong brand names already competing within the market. There are just four MNOs operating in Japan: NTT Docomo, KDDI Corporation, Rakuten, and SoftBank. These companies operate large infrastructure networks that

provide nationwide mobile and mobile broadband coverage. To create a new mobile network infrastructure would involve significant capital expenditure, unaffordable for most companies.

Secondly, there is only a limited amount of spectrum allocated for mobile communications, including 5G. This means just a small number of mobile operators can purchase the airwaves needed to provide mobile services. Furthermore, spectrum is only likely to be allocated to companies that already have the infrastructure and technology in place to readily provide communication services.

The largest threat comes from large technology and communications companies who are considering entry into the mobile phones market. E-commerce, fintech, and media company Rakuten launched its Rakuten Mobile subsidiary in April 2020. The company acquired customers with its aggressive launch pricing, including its Rakuten UN-LIMIT 2.0 plan, which offers unlimited data when customers use its own radio network, but a cap of 5GB when roaming in areas where Rakuten has not yet built out its own network and is relying for now on KDDI.

The most common method through which MNOs can infiltrate the market is through the acquisition of an existing incumbent. The largest threat of acquisition comes from large multinational MNOs or domestic or international telecommunication companies looking to expand into the mobile communications market.

Market entry is more achievable for MVNOs. These companies do not own mobile infrastructure and rely on cellular coverage purchased at wholesale prices from MNOs. The consumer's tendency to switch to affordable mobile phone services means new entrants can acquire customers with attractive and affordable mobile packages and strong customer services. Virtual networks traditionally offer contracts much cheaper than their parent networks and offer some good value SIM-only deals, which have grown in popularity because of handset fatigue. Successful MVNOs often use existing market assets such as media, telecom brands, customer databases, and other channel infrastructure.

In recent years, the Japanese government has attempted to create a more competitive mobile phones market to lower domestic mobile phone fees for end-consumers to help stimulate spending elsewhere and boost overall consumption. This has increased the threat from new entrants that will be able to attract customers with competitively priced mobile packages.

Japan is a mature and highly penetrated mobile market with a high smartphone penetration rate. Because of its saturated market environment, the country is unlikely to experience significant growth in new mobile subscribers, which makes it difficult for newcomers to attract customers. New entrants would have to find ways of competing with market leaders and eat into their market shares, which often results in incumbents retaliating to new competition.

Overall, the threat from new entrants is assessed as weak.

One possible substitute for mobile phones is fixed-line telephones. However, this threat is seen as minimal, as mobile phones offer the advantage of being able to use them over a much wider geographical area – wherever they pick up a signal. Not only this, but there has been an observed increase in households that have substituted fixed-line telephones with mobile phones. Moreover, many mobile phones now offer benefits that have enabled them to become substitutes for many other electrical appliances, including laptops, televisions, MP3 players, and cameras.

Whilst laptops also offer many of the features that mobile phones are marketed on, such as internet access, video calling through programs such as Skype, email, TV, GPS, music, entertainment, and portability, they are not a strong substitute, as they do not possess many of the benefits of a mobile phone, such as size, weight, and the seamless ability to call others. As smart phones have developed, they have gradually eaten into PC sales, with consumers showing a preference towards mobile devices.

Tablet computers could be seen as a substitute for smartphones, but large-screened smartphones (known as "phablets") negate this threat to a large extent. The fact that tablet sales have declined globally for the last several consecutive years supports this. This has led to many players operating in the tablets market, such as HTC and Dell, pulling out of that market, emphasizing the fact that the mobile phones market has successfully been able to counter the impact of this potential substitute.

Overall, the threat of substitutes is assessed as weak.

A small number of large mobile network operators competing within a commercial, sales driven market creates a highly competitive environment with a strong degree of rivalry. NTT Docomo, KDDI Corporation, Rakuten, and SoftBank are the primary MNOs competing in the Japanese mobile phones market and all of them compete intensely for a share of mobile subscribers and mobile service revenues. Leading players are continuously trying to improve customer experience, price, quality of service, scope of services, network coverage, sophistication of wireless technology, breadth of distribution, selection of devices, and branding and positioning to gain a competitive edge over rivals.

Competition remains intense because of high rates of smartphone penetration in the wireless market. The mobile market is one of the most mature segments of the Japanese telecommunications industry. It is characterized by high penetration rates, leading to increased competition and leaving MNOs battling to retain existing and attract new customers. This competitive landscape is one of the most influential factors continuing to impact the mobile market. The Japanese mobile phone market is highly saturated; therefore, incumbents need to try to attract new customers by causing them to switch from rival operators. Innovation, new technology, designing new mobile packages, and adding value to postpaid subscriptions helps to reduce customer churn and attract new customers. This kind of direct competition for consumers creates fierce rivalry.

The Japanese government has induced a higher degree of competition in the mobile phones market by encouraging new mobile service providers to undercut Japan's MNOs NTT Docomo, KDDI Corporation, and SoftBank, which currently serve approximately 90% of the Japanese population. Competition among mobile telecommunications service providers has intensified due to the government's strengthening of pro-competition policies, the expanded uptake of low-cost smartphone services by sub-brands and MVNOs, new entrants from different industries entering the market, and other factors. Stronger market competition will weaken the existing rivalry between MNOs as they start to switch their attention to managing competition from smaller emerging mobile carriers.

The similarity of players and their products also encourages rivalry. Each of the market's leading players provide the same core wireless services: calls, texts, data, and data roaming. Companies can attempt to differentiate themselves from competition in terms price and value-added services. As a result of the similarity of players, consumer choice is usually dictated by price, which creates a highly competitive market, with the companies offering the lowest priced mobile packages expected to attract the highest number of subscribers. This can be offset somewhat by the quality of services provided, including mobile coverage, device selection, and the availability of data. Consumers may be willing to pay premium prices for services such as unlimited data plans. In recent years, the market has slowed in response to a surge in competition, including price competition between major operators, the re-emergence of unlimited plans, and active promotion by new MVNOs.

Previously, this market was heavily driven by handset launches. Today, while handset innovation continues, the cost of a new mobile device has increased substantially, leading to consumers keeping their handsets for longer. This has also had an impact on store footfall. An increase in demand for SIM-only contracts and large data bundles is driving market growth.

5G technology has intensified competition in recent years. The performance of the mobile phone market is becoming increasingly reliant on data consumption trends. Consumers are demanding more data and 5G is a necessary technology for mobile operators to provide fast, low latency cellular broadband that better facilitates consumer data consumption and digital services. Competition has become increasingly fierce as mobile operators race to deploy nationwide 5G coverage.

Overall, rivalry is assessed as strong.

Market Definition

The Mobile Phones market includes mobile phone service revenues and average minutes of use (MOU). Market values are made up of total mobile revenues containing revenues from mobile service providers and other members of the mobile service value-chain for the provision of mobile telephony services, excluding revenues from the sale of devices. Market volumes are made up of two segments: prepaid and postpaid, which consist of prepaid average monthly MOU and postpaid average monthly MOU. Minutes of use are made up from the average of voice minutes used in mobile subscriptions, including both incoming and outgoing calls, but not including M2M/IoT voice services.

All market data and forecasts are represented in nominal terms (i.e. without adjustment for inflation) and all currency conversions used in the creation of this report have been calculated using constant 2021 annual average exchange rates.

Forecast figures in this report have taken into account the estimated impact that the COVID-19 pandemic will have on the market, though the length of the pandemic and restrictions imposed by governments around the world is not certain, therefore the impact on the market is difficult to predict.

For the purposes of this report, the global market consists of North America, South America, Europe, Asia-Pacific, Middle East, South Africa and Nigeria.

North America consists of Canada, Mexico, and the United States.

South America comprises Argentina, Brazil, Chile, Colombia, and Peru.

Europe comprises Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

Scandinavia comprises Denmark, Finland, Norway, and Sweden.

Asia-Pacific comprises Australia, China, Hong Kong, India, Indonesia, Kazakhstan, Japan, Malaysia, New Zealand, Pakistan, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam.

Middle East comprises Egypt, Israel, Saudi Arabia, and United Arab Emirates.

Document DMRP000020220322ei3m000v5

Networks - Telecommunications; Recent Findings in Telecommunications Described by Researchers from KDDI Corporation (A Two-stage Hardware Trojan Detection Method Considering the Trojan Probability of Neighbor Nets)

428 words

28 February 2022

Journal of Engineering

JOENG

180

English

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2022 FEB 28 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- A new study on Networks - Telecommunications is now available. According to news originating from Fujimino, Japan, by VerticalNews correspondents, research stated, "Due to the rapid growth of the information industry, various Internet of Things (IoT) devices have been widely used in our daily lives. Since the demand for low-cost and high-performance hardware devices has increased, malicious third-party vendors may insert malicious circuits into the products to degrade their performance or to leak secret information stored at the devices."

Our news journalists obtained a quote from the research from KDDI Corporation, "The malicious circuit surreptitiously inserted into the hardware products is known as a 'hardware Trojan.' Howto detect hardware Trojans becomes a significant concern in recent hardware production. In this paper, we propose a hardware Trojan detection method that employs two-stage neural networks and effectively utilizes the Trojan probability of neighbor nets. At the first stage, the 11 Trojan features are extracted from the nets in a given netlist, and then we estimate the Trojan probability that shows the probability of the Trojan nets. At the second stage, we learn the Trojan probability of the neighbor nets for each net in the netlist and classify the nets into a set of normal nets and Trojan ones."

According to the news editors, the research concluded: "The experimental results demonstrate that the average true positive rate becomes 83.6%, and the average true negative rate becomes 96.5%, which is sufficiently high compared to the existing methods."

This research has been peer-reviewed.

For more information on this research see: A Two-stage Hardware Trojan Detection Method Considering the Trojan Probability of Neighbor Nets. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2021;E104.A(11):1516-1525. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences can be contacted at: leice-inst Electronics Information Communication Engineers, Kikai-Shinko-Kaikan Bldg, 3-5-8, Shiba-Koen, Minato-Ku, Tokyo, 105-0011, Japan.

The news correspondents report that additional information may be obtained from Kento Hasegawa, KDDI Corporation, Fujimino 3568502, Japan. Additional authors for this research include Tomotaka Inoue and Nozomu Togawa.

Keywords for this news article include: Fujimino, Japan, Asia, Telecommunications, Networks, Business, Business, Cybersecurity, KDDI Corporation.

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Wind River Studio Powering KDDI O-RAN--Compliant 5G Virtualized Base Station

293 words

24 February 2022

Internet Business News

INTA

English

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The Wind River® Studio is being used by KDDI Corporation (KDDI) for its O-RAN--compliant 5G stand-alone virtualized base station technology, which has recently launched on its commercial network, the company said.

Wind River is a provider of the early 5G landscape, powering the majority of 5G RAN deployments with operators such as Verizon and Vodafone, and its Wind River Studio capabilities address service providers' complex challenge of deploying and managing a physically distributed, ultra-low-latency **cloud-native infrastructure**.

Wind River Studio provides a cloud-native platform for the development, deployment, operations, and servicing of mission-critical intelligent systems. Its cloud infrastructure capabilities include a fully cloud-native, Kubernetes- and container-based architecture, based on the StarlingX open source project, for distributed edge networks at scale. Addressing the complexities of deploying and managing cloud-native vRAN infrastructure, Studio delivers a foundation for a geographically distributed, managed solution able to simplify Day 1 and Day 2 operations by providing single-pane-of-glass, zero touch automated management of thousands of nodes, no matter their physical location.

Wind River is a provider of delivering software for mission-critical intelligent systems. For 40 years, the company has been an innovator and pioneer, powering billions of devices and systems that require the highest levels of security, safety, and reliability. To learn more, visit Wind River at www.windriver.com.

KDDI is telecommunication service provider in Japan, offering both mobile and fixed-line communications. With a 60-year history, KDDI is now focusing on creating smart infrastructure through IoT technologies and open innovation with partners and start-up companies in diverse industries.

((Comments on this story may be sent to info@m2.com))

Document INTA000020220224ei2o00002



au Jibun Bank Corp.: R&I Changes Outlook to Positive

296 words

24 February 2022

R & I - News Release

JBRI

English

(c) 2022 Japan Rating and Investment Information, Inc.

Rating and **Investment** Information, Inc. (R&I) has announced the following:

au Jibun Bank Corp.

RATIONALE: Japanese only

R&I RATINGS: ISSUER: au Jibun Bank Corp. "R&I's Basic Methodology for Corporate Credit Ratings [Jun. 01,2021]". "Shared Rating Approach for Financial Institutions, etc. [Mar. 23,2020]". "Depository Financial Institutions [Feb. 21,2019]". "R&I's Analytical Approach to Parent and Subsidiary Companies [Dec. 13,2017]". "R&I's Analytical Approach to Financial Groups [Aug. 09,2018]".

For rated entities, please refer to R&I's website at <https://www.r-i.co.jp>.

Credit ratings are R&I's opinions on an issuer's general capacity to fulfill its financial obligations and the certainty of the fulfillment of its individual obligations as promised (creditworthiness) and are not statements of fact. Further, R&I does not state its opinions about any risks other than credit risk, give advice regarding investment decisions or financial matters, or endorse the merits of any investment. R&I does not undertake any independent verification of the accuracy or other aspects of the related information when issuing a credit rating and makes no related representations or warranties. R&I is not liable in any way for any damage arising in relation to credit ratings (including amendment or withdrawal thereof). As a general rule, R&I issues a credit rating for a fee paid by the issuer. For details, please refer to <https://www.r-i.co.jp/en/docs/policy/site.html>.

Please direct your inquiries concerning the contents of the News to:

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Chiyoda-ku, Tokyo 101-0054, Japan

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au Reinsurance Corp.: R&I Changes Outlook to Positive

688 words

24 February 2022

R & I - News Release

JBRI

English

(c) 2022 Japan Rating and Investment Information, Inc.

Rating and **Investment** Information, Inc. (R&I) has announced the following:

au Reinsurance Corp. Issuer Rating: AA-, Affirmed Rating Outlook: Positive, Changed from Stable

RATIONALE:

Founded in November 2016 pursuant to the Captive Insurance Act of the Federated States of Micronesia, au Reinsurance Corp. is a captive insurance company indirectly wholly owned by KDDI Corp. It is under the umbrella of au Financial Holdings Corp. (auFH), which KDDI established in 2019 as a wholly owned subsidiary to manage the group's financial businesses. The rating for au Reinsurance directly reflects the creditworthiness of KDDI. au Reinsurance provides captive reinsurance for the KDDI Group, primarily by offering compensation coverage for mobile handsets, which form the core of the group's businesses. Through captive reinsurance, it helps optimize insurance costs paid to external parties while using the saved insurance costs for development and sales promotion of insurance products for au users. KDDI is working to enhance its competitiveness by attaching insurance, banking, settlement, securities and other functions to its products and services on the back of the customer base of its telecommunications business. Since KDDI positions expansion of financial services as a driver of the group's growth, au Reinsurance is important for group strategies. Its growth as a reinsurance captive is also envisaged in line with the growth of auFH's businesses. au Reinsurance has low risk appetite and a stable risk profile. Its underwriting risk through reinsurance is small. This is thanks to stable underwriting profitability partly stemming from the law of large numbers, as the unit insurance payout for its mainstay mobile handset compensation is low. Investment risk is also very small. With a sound underwriting portfolio focused on compensation coverage for mobile handsets, there is no problem with risk resilience, earning capacity or liquidity.

Following the change of the Rating Outlook for the parent company KDDI to Positive, R&I has changed the Rating Outlook for au Reinsurance from Stable to Positive.

The primary rating methodologies applied to this rating are provided at "R&I's Basic Methodology for Corporate Credit Ratings", "Shared Rating Approach for Financial Institutions, etc.", "Non-life Insurance", "R&I's Analytical Approach to Parent and Subsidiary Companies" and "R&I's Analytical Approach to Financial Groups". The methodologies are available at the web site listed below, together with other rating methodologies that are taken into consideration when assigning the rating.

https://www.r-i.co.jp/en/rating/about/rating_method.html

R&I RATINGS: ISSUER: au Reinsurance Corp. "R&I's Basic Methodology for Corporate Credit Ratings [Jun. 01,2021]". "Shared Rating Approach for Financial Institutions, etc. [Mar. 23,2020]". "Non-life Insurance [Apr. 14,2021]". "R&I's Analytical Approach to Parent and Subsidiary Companies [Dec. 13,2017]". "R&I's Analytical Approach to Financial Groups [Aug. 09,2018]".

For rated entities, please refer to R&I's website at <https://www.r-i.co.jp>.

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KDDI: R&I Affirms AA-, Changes Outlook to Positive<9433.T>

277 words

21 February 2022

R & I - News Release

JBRI

English

(c) 2022 Japan Rating and Investment Information, Inc.

Rating and **Investment** Information, Inc. (R&I) has announced the following:

KDDI Corp. Issuer Rating: AA-, Affirmed Rating Outlook: Positive, Changed from Stable

RATIONALE: The English version will be available soon.

R&I RATINGS: ISSUER: KDDI Corp. (Sec. Code: 9433) "R&I's Basic Methodology for Corporate Credit Ratings [Jun. 01,2021]". "Telecoms [Aug. 17,2018]".

For rated entities, please refer to R&I's website at <https://www.r-i.co.jp>.

Credit ratings are R&I's opinions on an issuer's general capacity to fulfill its financial obligations and the certainty of the fulfillment of its individual obligations as promised (creditworthiness) and are not statements of fact. Further, R&I does not state its opinions about any risks other than credit risk, give advice regarding investment decisions or financial matters, or endorse the merits of any investment. R&I does not undertake any independent verification of the accuracy or other aspects of the related information when issuing a credit rating and makes no related representations or warranties. R&I is not liable in any way for any damage arising in relation to credit ratings (including amendment or withdrawal thereof). As a general rule, R&I issues a credit rating for a fee paid by the issuer. For details, please refer to <https://www.r-i.co.jp/en/docs/policy/site.html>.

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Document JBRI000020220221ei2I0002u

KDDI Corporation - JAL and KDDI Collaborate to Create Social **Infrastructure** for Drones

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557 words

15 February 2022

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English

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JAL and KDDI Collaborate to Create Social **Infrastructure** for Drones

* Japan Airlines Co., Ltd.

* KDDI CORPORATION

February 15, 2022

Japan Airlines Co., Ltd. (Headquarters: Shinagawa-ku, Tokyo, President: AKASAKA Yuji, Representative Director; hereinafter JAL), KDDI CORPORATION (Headquarters: Chiyoda-ku, Tokyo, President: TAKAHASHI Makoto, hereinafter KDDI) signed Memorandum of Understanding on February 15, 2022 to jointly study the establishment of systems for flight management and a business model with the aim of turning drones into a social infrastructure (hereinafter this Alliance).

With the lifting of the ban on "Beyond Visual Line of Sight (BVLOS) flight (Level 4 flight)", which is scheduled to go into effect in fiscal 2022, drones are expected to be used as a new aerial infrastructure by companies and local governments in various fields such as logistics, inspection, and disaster response.

Through this Alliance, the two companies will utilize JAL's flight safety technologies and expertise in KDDI's Unmanned Aerial Traffic Management (UTM) system [1] to promote the transformation into a digital society. In addition to contributing to the transformation of drones into social infrastructure and promoting the transformation into a digital society, which has become urgent due to the new coronavirus infection (COVID-19), we will also contribute to the revitalization of regions where the population is declining and aging at an accelerating pace, and the creation of new services that will enrich our daily lives.

<Outline of this Alliance>

■Outline of this Alliance

By combining UTM system developed by KDDI for multiple drone operators with JAL's air transport business technology and expertise in flight management, including safety management related to air travel, we will build systems for performing flight management, such as collision avoidance, in the airspace where multiple drones are flying around the country. We will also contribute to the institutionalization and creation of guidelines necessary for the promotion of the drone industry.

<Image>

We will examine business models that provide consulting and resources to companies and municipalities that want to utilize drones. In addition to transporting goods by drones in remote island areas in fiscal 2022, we will conduct demonstrations to meet a variety of needs, and build a drone utilization business based on the demonstrations.

The two companies have accumulated knowledge and experience through simultaneous demonstration tests of multiple drones [2], delivery of pharmaceuticals in Hyogo Prefecture [3], and the first demonstration test of drones crossing multiple major bridges in Tokyo [4], with the aim of making drones automatic and autonomous and operating at high density and high frequency.

In the future, the two companies will continue to support drone services by companies and local governments with a focus on flight management, aiming to create a prosperous and sustainable society by closing the distance between people, goods and ideas in cities and rural areas through the use of drones as social infrastructure.

* [Original Link](#)

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KDDI Corporation - LAC, KDDI and Nomura Research Institute to Promote Cloud Security and Zero-Trust

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472 words

28 January 2022

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English

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LAC, KDDI and Nomura Research Institute to Promote Cloud Security and Zero-Trust

January 28, 2022

LAC CO., Ltd.

KDDI Corporation

Nomura Research Institute, Ltd.

In February 2022, LAC Co., Ltd. (Head Office: Chiyoda-ku, Tokyo; President: Itsuro Nishimoto; hereinafter, "LAC"), KDDI Corporation (Head Office: Chiyoda-ku, Tokyo; President: Makoto Takahashi; hereinafter, "KDDI") and Nomura Research Institute, Ltd. (Head Office: Chiyoda-ku, Tokyo; Chairman and President: Shingo Konomoto; hereinafter, "NRI") plan to launch an undertaking to promote cloud-native security [1] and zero-trust security [2] in order to support diversifying corporate activities using cloud and telework.

As Cyber-attacks continue to diversify and evolve, cyber-security measures are essential to ensure the safe and secure introduction and use of cloud services - which are vital to corporate digital transformation.

Also, as the COVID-19 continues, companies promote various IT-based work styles, such as balancing office work with work from home and remote work with workcations. Zero-trust security, through authentication of multiple communication devices, provides the key to further achieving this diversity of work styles. Three companies will start the tie-up to help solve these issues.

Toward this tie-up, LAC and NRI have concluded a capital and business alliance agreement on January 21, 2022 and LAC will conduct a third-party allotment to NRI through the issuance of new shares.

In March 2022, NRI and LAC will establish a joint venture company, that combines the knowledge of both companies, to provide managed security services for new cloud platforms.

In addition, in order to continue to strengthen its cooperative relationship with KDDI, with which it already has a capital and business alliance, LAC will also conduct a third-party allotment to KDDI through the issuance of new shares. The third-party allotment to KDDI and NRI is scheduled to be conducted on February 14, 2022.

As a result of this tie-up, these three companies plan to develop and explore security solutions for new technology fields; and contribute to the development of Japan's digital society by supporting the rapidly evolving digital transformation of enterprises through cyber security.

Before third-party allocation(As of September 30, 2021)	After third party allocation
--	------------------------------

Cosmos, Ltd.(wholly owned subsidiary of KDDI)	26.46□	22.48□
KDDI Corporation	5.43□	9.44□
Nomura Research Institute, Ltd.	-	10.21□

* [Original Link](#)

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NRI - LAC, KDDI and Nomura Research Institute to Promote **Cloud Security and Zero-Trust**

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638 words

21 January 2022

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LAC, KDDI and Nomura Research Institute to Promote **Cloud** Security and Zero-Trust

* News Release

* [Business activities](#)

LAC, KDDI and Nomura Research Institute to Promote Cloud Security and Zero-Trust

#Cloud

Jan. 21, 2022

LAC CO., Ltd.

KDDI Corporation

Nomura Research Institute, Ltd.

[Page for Print \(282KB \)](#)

In February 2022, LAC Co., Ltd. (Head Office: Chiyoda-ku, Tokyo; President: Itsuro Nishimoto; hereinafter, "LAC"), KDDI Corporation (Head Office: Chiyoda-ku, Tokyo; President: Makoto Takahashi; hereinafter, "KDDI") and Nomura Research Institute, Ltd. (Head Office: Chiyoda-ku, Tokyo; Chairman and President: Shingo Konomoto; hereinafter, "NRI") plan to launch an undertaking to promote cloud-native security (Note 1) and zero-trust security (Note 2) in order to support diversifying corporate activities using cloud and telework.

As Cyber-attacks continue to diversify and evolve, cyber-security measures are essential to ensure the safe and secure introduction and use of cloud services - which are vital to corporate digital transformation.

Also, as the COVID-19 continues, companies promote various IT-based work styles, such as balancing office work with work from home and remote work with workcations. Zero-trust security, through authentication of multiple communication devices, provides the key to further achieving this diversity of work styles. Three companies will start the tie-up to help solve these issues.

Toward this tie-up, LAC and NRI have concluded a capital and business alliance agreement on January 21, 2022 and LAC will conduct a third-party allotment to NRI through the issuance of new shares.

In March 2022, NRI and LAC will establish a joint venture company, that combines the knowledge of both companies, to provide managed security services for new cloud platforms.

In addition, in order to continue to strengthen its cooperative relationship with KDDI, with which it already has a capital and business alliance, LAC will also conduct a third-party allotment to KDDI through the issuance of new shares. The third-party allotment to KDDI and NRI is scheduled to be conducted on February 14, 2022.

As a result of this tie-up, these three companies plan to develop and explore security solutions for new technology fields; and contribute to the development of Japan's digital society by supporting the rapidly evolving digital transformation of enterprises through cyber security.

(Reference) Shareholding Ratio of KDDI and NRI after Third Party Allotment of LAC

of September 30, 2021)	After third party allocation	Before third-party allocation (As of September 30, 2021)
Cosmos, Ltd. (wholly owned subsidiary of KDDI)	26.46%	22.48%
KDDI Corporation	5.43%	9.44%
Nomura Research Institute, Ltd.	-	10.21%

* The shareholding ratio is the ratio of the number of shares held compared to the total number of issued shares (excluding treasury stock of 647,579 shares).

* (Note 1) The idea is to enhance the security of applications created on a cloud platform by utilizing the functions of the cloud.

* (Note 2) The idea is to enhance security by not trusting any internal and external traffic, but by inspecting and logging each device when they access services.

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What's New

* Jan. 26, 2022 [NRI Promotes Efforts for Carbon Neutral Data Centers](#) Business activities

* Jan. 26, 2022 [NRI adds Second Data Center Building to Osaka Data Center II](#) Business activities

* Jan. 25, 2022 [NRI to Provide the Service for Net-Zero Financed Emissions Commitment](#) Products and services

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Document LCDVP00020220128ei1I005n0

Sequans' Monarch 2 GM02S Module Successfully Completes Interoperability Testing for Use in Japan by NTT DOCOMO and KDDI

998 words

13 December 2021

13:00

PR Newswire

PRN

English

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PARIS, Dec. 13, 2021 /PRNewswire/ -- Sequans Communications S.A. (NYSE: SQNS) announced successful completion of interoperability testing of its Monarch 2 GM02S module with NTT DOCOMO, INC. and KDDI, two of Japan's largest mobile operators. Monarch 2 GM02S is based on Sequans' second-generation Monarch 2 **platform**, which is an LTE-M/NB-IoT chip designed to support massive IoT applications including meters, trackers, sensors, and wearables. The Monarch 2 GM02S module delivers ultra-low power consumption, support for integrated SIM (iUICC), and a Single-SKU(TM) RF front end that supports deployment in any band worldwide. It is fully backwards compatible with Sequans first generation Monarch **platform**.

"Our IoT customers will benefit from the maturity and ultra-low power consumption of Sequans' Monarch 2 GM02S module," said Yoshiaki Fujima, General Manager of Solution Service Department, NTT DOCOMO. "The module has powerful capabilities and it is a comprehensive IoT connectivity solution enabling device makers to launch new products quickly on our LTE-M network."

"Sequans' Monarch 2 GM02S module is one of the most advanced cellular IoT connectivity solutions in the market today," said Hiroshi Tsuji, General Manager of Service & Product Technology Department, KDDI. "It can be deployed in any band worldwide, ensuring success in IoT. We are pleased that Sequans' Monarch 2 GM02S module has passed our certification tests and is ready to support the design and deployment of new IoT devices on our network."

"Japan is one of the most exciting markets in the world for IoT and we are pleased that our Monarch 2 GM02S module can now support IoT developers and device makers in Japan," said Georges Karam, Sequans CEO. "Japan has great expertise in IoT segments such as smart city, smart home, wearables and other IoT-related tech and we look forward to seeing many new Sequans-connected IoT devices launching on Japan's mobile networks very soon. This new step is expanding the reach of Monarch 2 GM02S module already largely used in Europe and North America."

Monarch 2 GM02S Module Product Description

Monarch 2 GM02S is the industry's most advanced LTE Cat M1/NB1/NB2 connectivity solution. It is based on Sequans' second-generation Monarch 2 chip platform, which is designed and optimized to support massive IoT. Monarch 2 provides significant improvements in performance and power consumption, while providing seamless migration for Monarch 1 customers because it is based on Sequans' existing LTE-M/NB-IoT protocol stack—one of the most mature and proven in the entire LTE ecosystem. Monarch 2 GM02S provides powerful support for integrated SIM (iUICC), enabled by its integrated high level EAL5+ secure enclave that is standards-based and GSMA-compliant, providing best-in-class security. Monarch 2 GM02S also includes Sequans' Single-SKU(TM) RF front end, supporting deployment in any band worldwide, for true global deployment capability. A low-power application MCU allows customers to port their own code into the module via a feature rich SDK. On top of its ultra-low power consumption, Monarch 2 GM02S utilizes a single rail power supply starting at 2.2 V, the lowest voltage supported by any LTE-M/NB-IoT module in the industry today.

About Sequans

Sequans Communications S.A. (NYSE: SQNS) is a leading developer and supplier of cellular IoT connectivity solutions, providing chips and modules for 5G/4G massive and broadband IoT. For 5G/4G massive IoT applications, Sequans provides a comprehensive product portfolio based on its flagship Monarch LTE-M/NB-IoT and Calliope Cat 1 chip platforms, featuring industry-leading low power consumption, a large set of integrated functionalities, and global deployment capability. For 5G/4G broadband IoT applications, Sequans offers a product portfolio based on its Cassiopeia Cat 4/Cat 6 4G and high-end Taurus 5G chip platforms, optimized for low-cost residential, enterprise, and industrial applications. Founded in 2003,

Sequans is based in Paris, France with additional offices in the United States, United Kingdom, Israel, Hong Kong, Singapore, Finland, Taiwan, South Korea, and China. Visit Sequans online at www.sequans.com, and follow us on Twitter and Linked-In

Forward Looking Statements

About NTT DOCOMO

NTT DOCOMO, Japan's leading mobile operator with over 83 million subscriptions, is one of the world's foremost contributors to 3G, 4G and 5G mobile network technologies. Beyond core communications services, DOCOMO is challenging new frontiers in collaboration with a growing number of entities ("+d" partners), creating exciting and convenient value-added services that change the way people live and work. Under a medium-term plan toward 2020 and beyond, DOCOMO is pioneering a leading-edge 5G network to facilitate innovative services that will amaze and inspire customers beyond their expectations.

<https://www.nttdocomo.co.jp/english/> .

About KDDI

KDDI is telecommunication service provider in Japan, offering both mobile and fixed-line communications. With its well-established base of over 40 million customers, and through mobile services and shops offering its "au" brand, KDDI is expanding its services into the "Life Design" business, which includes e-commerce, fintech, nationwide electric power utility services, entertainment and education. With a 60-year history, KDDI is now focusing on creating smart infrastructure through IoT technologies and open innovation with partners and start-up companies in diverse industries. KDDI is accelerating the global growth of its telecommunications consumer business, with operations in Myanmar and Mongolia, and in the global ICT business with the "TELEHOUSE" brand. KDDI (TYO:9433) is listed on the Tokyo stock exchange.

<http://www.kddi.com/english/>

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View original content to download multimedia:

<https://www.prnewswire.com/news-releases/sequans-monarch-2-gm02s-module-successfully-completes-interoperability-testing-for-use-in-japan-by-ntt-docomo-and-kddi-301442471.html>

SOURCE Sequans Communications

(END)

Document PRN0000020211213ehcd0006k

KDDI Corporation

MarketLine Company Profiles, 27 November 2021, 8263 words, (English)

KDDI CorporationKDDI Corporation (KDDI or "the company") is a provider of telecommunications services. The company offers fixed-line, broadband and mobile services. The company provides mobile and fixed line communication service for ...

Supership Holdings Inc. KDDI & Supership to Launch Next-generation Digital Advertising Platform That Prioritizes Customer Privacy

173 words

26 November 2021

Marketing Weekly News

MRKWN

33

English

© Copyright 2021 Marketing Weekly News via VerticalNews.com

2021 DEC 4 (VerticalNews) -- By a News Reporter-Staff News Editor at Marketing Weekly News -- KDDI CORPORATION (referred to as "KDDI" below), Supership Holdings Inc. (referred to as "Supership Holdings" below) and Supership Inc. (referred to as "Supership" below), all based in Tokyo, are jointly developing a next-generation digital advertising platform (referred to as "the platform" below) for scheduled launch in January 2022. The platform will prioritize data privacy while serving highly relevant advertising based on customer lifestyles.

At the core, patented technology provided by Novatiq Ltd. (referred to as "Novatiq" below), headquartered in Wales, the UK, enables advertisers to activate audiences using only permission-based data.

KDDI, Supership Holdings and Supership will integrate the platform with Supership's advertising platform to provide optimized digital marketing for advertisers.

Keywords for this news article include: Business, Advertising, Supership Holdings Inc.

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Document MRKWN00020211126ehbq0001q

KDDI & SUPERSHIP NEXT-GENERATION DIGITAL ADVERTISING PLATFORM FOR JANUARY LAUNCH

GERALD RAJA

329 words

18 November 2021

Bernama: The Malaysian National News Agency

AIWBRN

English

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KUALA LUMPUR, Nov 18 (Bernama) -- KDDI CORPORATION (KDDI), Supership Holdings Inc (Supership Holdings) and Supership Inc (Supership), all based in Tokyo, are jointly developing a next-generation digital advertising platform (the platform) for scheduled launch in January 2022.

The platform will prioritise data privacy while serving highly relevant advertising based on customer lifestyles, according to a statement.

At the core, patented technology provided by Novatiq Ltd (Novatiq), headquartered in Wales, the UK, enables advertisers to activate audiences using only permission-based data.

KDDI, Supership Holdings and Supership will integrate the platform with Supership's advertising platform to provide optimised digital marketing for advertisers.

To date, using third-party data to reach audiences based on customer interests and needs across websites and apps has been a mainstream practice in digital marketing. However, from a data privacy protection viewpoint, this is globally becoming more problematic, as much of this third-party data originates from tracking customer behaviour with cookies or advertising IDs (referred to as ADID) without consent.

The platform protects the customer's data privacy by generating a transient one-time token (referred to as ad delivery ID) for each website or mobile app interaction combined with KDDI's permission-based attribution (e.g. gender, age group, etc.). It enables advertisers to serve highly relevant ads using only permission-based data, ensures that customer privacy is protected, and supports effective marketing.

KDDI, Supership Holdings and Supership will utilise this new technology in their aim to spread the use of digital ad delivery that prioritises privacy.

Supership Holdings entered into a capital and business alliance with Novatiq in June this year. This agreement gives the Supership Group the exclusive rights to use Novatiq's patented technology in Asia.

Novatiq is a leading identity and audience activation platform empowering publishers, brands and telcos to reach their audiences at scale and provide better customer experiences -- all while prioritising privacy.

-- BERNAMA

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Document AIWBRN0020211119ehbi0001g

KDDI & SUPERSHIP NEXT-GENERATION DIGITAL ADVERTISING PLATFORM FOR JANUARY LAUNCH

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326 words

18 November 2021

Bernama Daily Malaysian News

BRNAMA

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Document BRNAMA0020211119ehbi00046

KDDI & Supership to Launch Next-generation Digital Advertising Platform That Prioritizes Customer Privacy; - "Reaching Lifestyle-relevant Audiences at Scale without Cookies" -

Supership Holdings Inc.; PR Newswire

928 words

18 November 2021

06:00

PR Newswire Asia

PRNASI

English

Copyright © 2021 PR Newswire Association LLC. All Rights Reserved.

TOKYO, Nov. 18, 2021 /PRNewswire/ -- KDDI CORPORATION (referred to as "KDDI" below), Supership Holdings Inc. (referred to as "Supership Holdings" below) and Supership Inc. (referred to as "Supership" below), all based in Tokyo, are jointly developing a next-generation digital advertising platform (referred to as "the platform" below) for scheduled launch in January 2022. The platform will prioritize data privacy while serving highly relevant advertising based on customer lifestyles.

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KDDI, Supership Holdings and Supership will integrate the platform with Supership's advertising platform to provide optimized digital marketing for advertisers.

Overview of new digital advertising platform:

https://kyodonewsprwire.jp/prwfile/release/M106894/202111123299/_prw_PI1fl_kSUCjIK7.jpg

To date, using third-party data (*1) to reach audiences based on customer interests and needs across websites and apps has been a mainstream practice in digital marketing. However, from a data privacy protection viewpoint, this is globally becoming more problematic, as much of this third-party data originates from tracking customer behavior with cookies or advertising IDs (referred to as "ADID" below) without consent. This situation demands new marketing methods that don't rely on the utilization of such third-party data.

The platform protects the customer's data privacy by generating a transient one-time token (referred to as "ad delivery ID" below) (*2) for each website or mobile app interaction combined with KDDI's permission-based attribution (e.g. gender, age group, etc.). It enables advertisers to serve highly relevant ads using only permission-based data, ensures that customer privacy is protected, and supports effective marketing.

KDDI, Supership Holdings and Supership will utilize this new technology in their aim to spread the use of digital ad delivery that prioritizes privacy.

For more information, please refer to the following:

About the platform

1. Features

(1) Privacy-first platform:

- The platform serves highly effective digital advertising through the utilization of original ad delivery IDs that aren't dependent on cookies or ADIDs.
- Ad delivery IDs are randomly generated when websites and apps are accessed to ensure ad delivery IDs aren't saved on customer devices such as smartphones and computers. In addition, customer action histories aren't tracked or collected across websites and apps.

(2) Realization of digital ad delivery relevant to customer's lifestyle:

- The platform connects permission-based first-party data (*3) from the KDDI Group to the ad delivery ID using IP addresses in an intermediate step. This cohort information (gender, age group, etc.) is used to determine which ad is delivered.
- While taking data privacy into consideration, advertisers can reach audiences with highly relevant digital advertisements based on customer lifestyle.

(3) Service provided via Supership's ad platform which sees 35bn monthly impressions:

- The platform built on Novatiq's patented technology will be provided via Supership's DSP (ScaleOut) and SSP (Ad Generation).

- SSP (Ad Generation) is a multifaceted platform centering around mobile apps. It boasts a wealth of inventory, and delivers ads to customers through premium media.

- Supership Holdings entered into a capital and business alliance (*4) with Novatiq in June 2021. This agreement gives the Supership Group the exclusive rights to use Novatiq's patented technology in Asia.

*Only permission-based data is utilized. Data handling complies with all relevant laws and regulations to ensure appropriate information security. In addition, any personally identifiable data such as the names of individuals, addresses including street numbers, telephone numbers, and email addresses are not utilized.

For details regarding data usage or the ad delivery system, please refer to the privacy portal:

<https://www.kddi.com/corporate/kddi/public/privacy-portal/>

2. Launch date:

January 2022

3. Fees:

For inquiries regarding fees, please contact Supership Inc.

4. Contact information:

Supership Inc.

Web inquires: https://supership.jp/business/cookieless-ads_en

(Reference)

About Novatiq

Novatiq is a leading identity and audience activation platform empowering publishers, brands and telcos to reach their audiences at scale and provide better customer experiences -- all while prioritizing privacy. Using patented, privacy-first technology, Novatiq enables the creation of IDs based on pseudonymised first-party data, including fully consented customer intelligence from telco operators. This new approach to consented IDs puts privacy first, improves user-experience, drives better campaign performance, and enables a new generation of personalized digital services. The company has multiple patents, and is ISO 27001-certified and rigorously compliant with global privacy standards.

<https://novatiq.com/>

Notes:

(*1) Data provided by third parties that don't have a direct relationship with the customer.

(*2) Ad delivery identifiers are randomly generated when ad spots with modules are displayed on the platform. The module generates or transmits ad identifiers by utilizing a program equipped with part of an ad spot provided by Supership. Apps and web services other than those provided by KDDI are also embedded.

(*3) Data that businesses collect/store after receiving customer permission.

(*4) Supership Holdings' news release (June 1, 2021): Supership Group and Novatiq Ltd. form Capital and Business Alliance to Develop Next-Generation Digital Advertising Platform for Cookie-less World

<https://supership-hd.jp/news/20210601/>

SOURCE Supership Holdings Inc.

https://rt.prnewswire.com/rt.gif?NewsItemId=AE80972&Transmission_Id=202111180100PR_NEWS_ASPR_AE80972&DatId=20211118

Saori Sasaki, Corporate Communication Division, Supership Holdings Inc., Tel: +81-3-6365-6758, Email: pr@supership.jp

Document PRNASI0020211118ehbi001up

KDDI Corporation - KDDI&Supership to launch next-generation digital advertising platform that prioritizes customer privacy

KDDI Corporation published this content on 16 Nov 2021 and is solely responsible for the information contained herein. Distributed by PUBT, unedited and unaltered, on 16 Nov 2021 02:02:40 UTC.

116 words

16 November 2021

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English

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KDDI&Supership to launch next-generation digital advertising platform that prioritizes customer privacy

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Document LCDVP00020211116ehbg001e1



Pocket RD Secures USD4 Million in Seed Funding

178 words

12 November 2021

MarketLine Financial Deals Tracker

FDTRA

English

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Deal In Brief

Pocket RD Inc, a Japan-based blockchain marketplace for the secondary distribution and sale of 3DCG data, has secured JPY450 million (USD4 million) in Seed B funding from Square Enix, KDDI Corporation, Kodansha Ltd, Dai Nippon Printing.

Deal Value (US\$ Million)	3.95
Deal Type	Venture Finance
Sub-Category	Seed
Deal Status	Completed: 2021-11-12

Deal Participants

Target (Company)	Pocket RD Inc
Acquirer 1 (Company)	Global Brain Corporation
Acquirer 2 (Company)	Square Enix Holdings Co., Ltd.
Acquirer 3 (Company)	SMBC Venture Capital Co., Ltd.
Acquirer 4 (Company)	Dai Nippon Printing Co., Ltd.
Acquirer 5 (Company)	Kodansha Ltd

Deal Rationale

The fund from the proceeds will be used to strengthen the development of AVATARIUM, a fully automated production and editing platform for personal avatars.

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Document FDTRA00020211123ehbc0002k

PocketRD Raises USD3.94 Million in Series B Funding

250 words

12 November 2021

MarketLine Financial Deals Tracker

FDTRA

English

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Deal In Brief

PocketRD Co Ltd (PocketRD Inc), a Japan-based XR technology company that strives to provide solutions that offer new and more expressive tools for human communication, has raised JPY450 million(USD3.94 million) in Series B **funding** from Square Enix, KDDI Corporation, Kodansha Ltd, Dai Nippon Printing Co, Ltd. KDDI Open Innovation Fund III will act as lead investor with additional backing from Kodansha Co Ltd, Dai Nippon Printing Co Ltd, and SMBC Venture Capital Co Ltd.

Deal Value (US\$ Million)	3.95
Deal Type	Venture Finance
Sub-Category	Growth Capital/Expansion
Deal Status	Completed: 2021-11-12

Deal Participants

Target (Company)	Pocket RD Inc
Acquirer 1 (Company)	Square Enix Holdings Co., Ltd.
Acquirer 2 (Company)	Kodansha Ltd
Acquirer 3 (Company)	SMBC Venture Capital Co., Ltd.
Acquirer 4 (Company)	Dai Nippon Printing Co., Ltd.
Acquirer 5 (Company)	KDDI Open Innovation Fund 3

Deal Rationale

PocketRD intends to use proceeds to strengthen the development of "AVATARIUM", a fully automated production and editing platform for personal avatars, and "Pocket Collection", a blockchain supported NFT marketplace for 3D CG assets and to provide growth through business alliances with KDDI Corporation, Kodansha Ltd, and Dai Nippon Printing Co, Ltd.

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Document FDTRA00020211120ehbc0000p

ScaleOut Software Announces Azure **Digital Twins** Integration for its ScaleOut Digital Twin Streaming Service(TM)

958 words

9 November 2021

15:00

Business Wire

BWR

English

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Organizations Can Now Gain Real-Time, Scalable Message Processing with No-Code Machine Learning, Actionable Insights and Real-Time Visualization for Azure **Digital Twins**

BELLEVUE, Wash. --(BUSINESS WIRE)--November 09, 2021--

ScaleOut Software today announced major extensions to the ScaleOut Digital Twin Streaming Service(TM) that integrate its Azure-based in-memory computing platform with Microsoft's Azure Digital Twins cloud service. This integration adds key new capabilities for real-time analytics to Azure Digital Twins and unlocks important new use cases in a variety of applications, such as predictive maintenance, logistics, telematics, disaster recovery, cyber and physical security, health-device tracking, IoT, smart cities, financial services, and ecommerce.

The new ScaleOut Azure Digital Twins Integration is a set of extensions to the ScaleOut Digital Twin Streaming Service which adds a real-time component to Azure digital twin models. With this integration, ScaleOut Software's real-time components can perform low-latency message ingestion and processing with immediate access to their corresponding Azure digital twin's properties instead of requiring Azure serverless functions to perform these functions. In addition, the ScaleOut Digital Twin Streaming Service provides real-time data aggregation, continuous query, and real-time visualization for Azure digital twin properties.

The ScaleOut Azure Digital Twins Integration enables application developers to create and run a real-time component within an Azure digital twin. This component hosts message-processing code and state properties that are used to track and analyze telemetry from a single data source on behalf of its corresponding Azure digital twin instance. Message-processing code can be written in C#, Java, JavaScript, or using an intuitive rules-based language. It can also incorporate machine learning algorithms implemented using Microsoft's ML.NET library that require no code development and continuously examine incoming telemetry for anomalies.

Key capabilities include:

- Fast, In-Memory Processing and State Storage: Integrating ScaleOut's real-time components enables Azure digital twins to leverage in-memory computing and perform message processing with lower latency and faster access to state information than serverless functions. In-memory computing also boosts scalability to handle thousands or even millions of data sources.
- Integrated Connectivity to Azure IoT Hub: The ScaleOut Digital Twin Streaming Service connects directly with Azure IoT Hub (and other message hubs) using a scalable software architecture for message ingestion and replies.
- APIs for Accessing Azure Digital Twin Properties: ScaleOut's real-time components incorporate APIs that can read and update state properties in Azure digital twin instances. They also make it possible for Azure digital twins to store complex data structures, such as event lists.
- New Real-Time Visualization Tools: The ScaleOut Azure Digital Twins Integration also enables continuous data aggregation and charting of state properties held in Azure Digital Twin instances. Users can now also perform continuous queries with geospatial visualization.

"We are excited to combine our in-memory computing technology with the popular Azure Digital Twins platform to deliver fast, scalable insights that help address real-time challenges across industries," said Dr. William Bain, ScaleOut Software's CEO and founder. "By incorporating this technology, ScaleOut Software is enabling a new wave of applications for Azure Digital Twins, and we look forward to helping our customers take full advantage of this integration to meet their real-time monitoring and streaming analytics capabilities."

Benefits of ScaleOut Software's Azure Digital Twins Integration

Adding real-time components to Azure digital twin models offers these key benefits:

- New Use Cases for Azure Digital Twins: This integration widens the spectrum of use cases for Azure Digital Twins. Countless applications, from telematics to cyber security, must track thousands of data sources with low latency and react quickly to emerging issues. They can now use ScaleOut's real-time components to accomplish this with their Azure Digital Twins models.
- Enhanced Situational Awareness: Real-time data aggregation and visualization provided by ScaleOut's real-time components provides a continuous view of the dynamic state of Azure digital twin instances. This maximizes situational awareness and enables managers to quickly identify and address emerging issues.
- Integrated Data View: The ScaleOut Azure Digital Twins integration seamlessly combines state properties for real-time components with other properties tracked by Azure digital twins, giving users a unified view of all data when using the Azure Digital Twins Explorer GUI tool.
- Simplified Application Development: The use of ScaleOut's real-time components simplifies application development for message processing and accessing an Azure digital twin's state. It also consolidates the code required by multiple serverless functions and avoids the need for application-specific code for message ingestion from Azure IoT Hub.
- Automatic Persistence: By integrating with Azure Digital Twins, ScaleOut's real-time components automatically persist their state to Azure Digital Twins for offline storage. This enables them to run at fast, in-memory speed while saving and restoring their state across deployments on start up.

For more information, please visit www.scaleoutsoftware.com and follow @ScaleOut_Inc on Twitter.

Additional Resources:

- Azure Digital Twins Integration Blog Post
- ScaleOut Digital Twin Streaming Service Product Page

About ScaleOut Software

Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in-memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon.

View source version on businesswire.com: <https://www.businesswire.com/news/home/20211109005638/en/>

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Document BWR0000020211109ehb9000ir

Gaming Disorder on Rise in Japan amid COVID-19 Pandemic

363 words

4 November 2021

02:02

Jiji Press English News Service

Jiji

English

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Tokyo, Nov. 4 (Jiji Press)--More and more people in Japan are showing behaviors associated with **gaming** disorder and online addiction amid the novel coronavirus pandemic, a study by KDDI Corp. <9433> and others has shown.

With many feeling increased stress as a result of the virus crisis, the number of people who showed a tendency of having gaming disorder went up about 1.6-fold from a prepandemic level, according to the study.

The research also showed that COVID-19 patients had a 5.67-times higher risk of becoming addicted to gaming when compared with uninfected people.

A group of researchers from KDDI, the Advanced Telecommunications Research Institute International and other organizations surveyed some 51,000 people aged between 20 and 69 over the internet in December 2019, before the virus outbreak in Japan, and again in August 2020.

The group examined how the number of people with addiction changed after the viral spread using data of some 4,000 of the surveyed people.

The results indicated that the proportion of people showing a tendency of having gaming disorder, such as lacking self-control over gaming and prioritizing gaming over daily activities including work and study, rose to 5.9 pct in 2020 from 3.7 pct in 2019.

The proportion of people with symptoms specific to gaming disorder also increased from a prepandemic level. Such people included those with a desire to play harder games and those who get upset when not being able to play games.

In May 2019, the World Health Organization recognized gaming addiction as a disorder. Such an addiction has become a serious issue in Japan.

The research also showed that the proportion of people with online addiction increased to 11.6 pct, up some 1.5-fold from 7.9 pct logged before the virus outbreak.

"Many people, especially those who contracted the coronavirus, may have got into gaming in order to cope with their stress," the research group analyzed.

The group will continue to conduct surveys to look into how gaming disorder and other issues are affected by the virus pandemic.

END

[Jiji Press]

Document JIJI000020211104ehb40002t

SCALEOUT DEBUTS MACHINE LEARNING CAPABILITIES.

678 words

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High Power Computing

MCRC

NA

Volume 34; Issue 11

English

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ScaleOut Software today announced major extensions to its ScaleOut Digital Twin Streaming Service that enable real-time digital twin software to implement and host machine learning and statistical analysis algorithms that immediately identify unexpected behaviors exhibited by incoming telemetry. Real-time **digital twins** can now make extensive use of Microsoft's ML.NET machine learning library to implement these groundbreaking capabilities for virtually any IoT device or source object.

Integration of machine learning with real-time **digital twins** offers powerful new options for real-time monitoring across a wide variety of applications. For example, **cloud**-based real-time **digital twins** can track a fleet of trucks to identify subtle changes in key engine parameters with predictive analytics that avoid costly failures. Security monitors tracking perimeter entrances and sound sensors can use machine learning techniques to automatically identify unexpected behaviors and generate alerts.

By harnessing the no-code ScaleOut Model Development Tool, a real-time digital twin can easily be enhanced to automatically analyze incoming telemetry messages using machine learning techniques. Machine learning provides important real-time insights that enhance situational awareness and enable fast, effective responses. The tool provides three configuration options for analyzing numeric parameters contained within incoming messages to spot issues as they arise:

• **Spike Detection:** Tracks a single parameter from a data source to identify a spike in its values over time using an adaptive kernel density estimation algorithm implemented by ML.NET.

• **Trend Detection:** Also tracks a single parameter to identify a trend change, such as an unexpected increase over time for a parameter that is normally stable, using a linear regression algorithm that detects inflection points.

• **Multi-Variable Anomaly Detection:** Tracks a set of related parameters in aggregate to identify anomalies using a user-selected machine-learning algorithm implemented by ML.NET that performs binary classification with supervised learning.

Once configured through the ScaleOut Model Development Tool, the ML algorithms run automatically and independently for each data source within their corresponding real-time digital twins as incoming messages are received. Each real-time digital twin can automatically capture anomalous events for follow-up analysis and generate alerts to popular alerting providers, such as Splunk, Slack, and Pager Duty, to support remediation by service or security teams.

Integrating machine learning into ScaleOut's real-time digital twins offers these key benefits:

• **Powerful New Capabilities for Tracking Data Sources:** The use of machine learning dramatically enhances the ability of streaming analytics running in real-time digital twins to automatically predict and identify emerging issues, thereby boosting their effectiveness.

• **Simultaneous Tracking for Thousands of Data Sources:** The integration of machine learning with real-time digital twins using in-memory computing techniques enables thousands of data streams to be independently analyzed in real-time with fast, scalable performance.

• **Fast, Easy Application Deployment:** With the ScaleOut Model Development Tool, these new machine learning capabilities can be configured in minutes using an intuitive GUI. No code development or library integration is required. Applications can optionally take advantage of a fully integrated rules engine to enhance their real-time analytics.

• **Seamless Use of Microsoft's Powerful Machine Learning Library:** Users can automatically take advantage of Microsoft's industry-leading technology for machine learning (ML.NET) to enhance their real-time device tracking and streaming analytics.

~ Virtual Unlimited Application: These new capabilities are useful across a wide variety of applications that track numeric telemetry, with use cases including telematics, logistics, security, healthcare, retail, financial services, and many others.

About ScaleOut Software

Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in- memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon.

For more information, visit www.scaleoutsoftware.com or call 206/264-0246.

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Partners to demo Bloom City AR mobile app experience aligned with GSMA foundry telco edge **cloud trials**

821 words

28 October 2021

Jordan News Agency (Petra)

JONAG

English

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KDDI Corporation, Deutsche Telekom AG, MobileEdgeX, Sturfee and Mawari have jointly developed a mobile application proof of concept to demonstrate an augmented reality (AR) application leveraging remote rendering (Mawari) and visual positioning (Sturfee) running on a common **platform** (MobileEdgeX) across edge networks jointly provided by KDDI and Deutsche Telekom.

This proof of concept (PoC) is expected to accelerate global edge-enabled extended reality (XR) application development and will be showcased in alignment with the GSMA Foundry Telco Edge **Cloud** (TEC) Pre-Commercial Trials initiative. A video demonstrating the PoC is available at [here](#).

The Concept: Harmonised low latency XR enabling services and applications on multiple operator edge networks

To provide the best user experience, next generation mobile applications like XR require close proximity to support APIs and SDKs in backend code, and deliver the quality of experience and scale that mobile application users demand. To address that requirement, there's a growing need for consistent APIs and cloud services to be deployed within MNO edge networks to support these next generation applications in an easy and consistent way. For MNOs, the challenge is speed, scale and collaboration. Today, MNOs cannot benefit from each others complementary market development, especially in the area of discovering new in-network services that will be required to power the next generation of apps and solutions.

Proof of Concept Overview: Bloom City mobile application

This trial shows the ability to run advanced, edge-enabled services across different geographies and MNO edge networks. Using the MobileEdgeX Edge-Cloud platform to provide unified access to KDDI and Deutsche Telekom's 5G edge resources, Sturfee and Mawari were able to easily deploy and run services with optimal latency and bandwidth, creating a highly-differentiated mobile application experience.

In the Bloom City demo application, Mawari's XR streaming solution delivers a real-time multiplayer experience featuring hyper-realistic, personalised digital assistants (developed in conjunction with au VISION STUDIO) that leads app users on a guided tour of Bonn, Germany or Tokyo, Japan. The digital tour guide and virtual, interactive billboard advertisements are overlaid atop the users real world view via Sturfee's Visual Positioning Service (VPS), while KDDI and Deutsche Telekom-built servers running NVIDIA GPUs in edge networks provide performant compute access.

The MobileEdgeX Edge-Cloud platform running on top of MNO edge infrastructure allows for the dynamic and optimised deployment of workloads that require location-based execution and reduced latency.

The Sturfee VPS also uses MobileEdgeX Edge-Cloud to onboard backend services for satellite-imagery based high-precision localisation systems, and allows deployment with just one API call to any target edge infrastructure connected to the system.

Mawari's XR streaming format powered by datacentre GPUs allows the highest fidelity content to be streamed from the edge networks to XR devices, including smartphones and head-mounted displays that could otherwise not be processed by the devices. The result is unprecedented quality, saving cost, size and battery life, while supporting scalability.

A low latency connection to the edge network is required to correctly position and blend hyper-realistic content with the real world. The PoC makes full use of MNO edge networks to enhance ultra-low latency features of 5G, and is expected to realise a whole new platform distributing innovative XR services and experiences across the world.

For more information about the demo application, see [here](#).

Kei Morita

We could successfully deploy XR core technologies (Sturfee VPS and Mawaris Remote Rendering) as unified backend services on top of a common platform (MobileEdgeX) across KDDIs and Deutsche Telekom's 5G edge resources, and demonstrated that immersive XR content did work correctly with ultra-low latency in Bonn, Germany and Tokyo, Japan, says Kei Morita, member of the board, managing executive officer, personal business sector, KDDI Corporation. We hope that the knowledge and findings acquired from this proof of concept would be broadly utilised to accelerate global edge-enabled innovative XR application development for the 5G Stand Alone (SA) Era.

We are very excited to be part of this collaboration to successfully deploy advanced XR applications on federated edge infrastructure in Germany and Japan. This joint effort is addressing the needs of the XR developer community for a fast and easy way to deploy their applications to users in markets worldwide. We will continue to push this global platform approach, leveraging common open APIs, to bring compelling 5G and edge enabled XR experiences to our customers, says Dominik Schnieders, head of edge computing / Cloud XR at Deutsche Telekom.

The edge is becoming reality as key challenges around cross-operator compatibility, geographic location, latency, and app control and management on the telecom edge are proven to meet next-gen application needs. We are proud to continue playing a role to advance edge capabilities and experiences as these new networks are prepped for primetime deployments, says Thomas Vits, product management consultant, MobileEdgeX.

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KDDI, Deutsche Telekom, MobileEdgeX, Sturfee and Mawari to Demonstrate Bloom City Next-Generation AR Mobile App Experience in Alignment with GSMA Foundry Telco Edge Cloud (TEC) Trials Initiative

1,832 words

26 October 2021

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GlobeNewswire

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English

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Jointly-developed proof of concept will feature hyper-realistic virtual human from KDDI's au VISION STUDIO, demonstrating development and testing of XR enablers and applications harmonized across multiple mobile network operator (MNO) edge networks and infrastructures.

LOS ANGELES, Oct. 26, 2021 (GLOBE NEWSWIRE) -- MOBILE WORLD CONGRESS 2021 LA -- KDDI Corporation (headquartered in Tokyo, Japan; hereinafter "KDDI"), Deutsche Telekom AG, MobileEdgeX, Sturfee and Mawari have jointly developed a mobile application proof of concept to demonstrate an augmented reality (AR) application leveraging remote rendering (Mawari) and visual positioning (Sturfee) running on a common platform (MobileEdgeX) across edge networks jointly provided by KDDI and Deutsche Telekom. This proof of concept (PoC) is expected to accelerate global edge-enabled extended reality (XR) application development and will be showcased in alignment with the GSMA Foundry Telco Edge Cloud (TEC) Pre-Commercial Trials initiative. A video demonstrating the PoC is available at <https://youtu.be/NoaqlsZoW2o>.

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Sturfee Quote

"Sturfee's customers demand immersive 3D experiences, requiring blending 3D digital content naturally with the physical environment. We are excited to work with partners to bring our Visual Positioning Service (VPS) on edge computing infrastructure to deliver a constantly great user experience. This team of partners has ably demonstrated the powerful capabilities that can be unlocked when core VPS infrastructure is running on an edge network. The app is also a model for how to have a city bloom with layers of rich, dense AR content," said Barton Denny, Head of VPS Business, Sturfee.

Mawari Quote

"This is an ambitious collaboration that we're honoured to be a part of," said Luis Oscar Ramirez Solorzano, CEO at Mawari, Inc. "The dream of a future with synthetic reality experiences has been unfulfilled by the lack of key enabling technologies until now. We are proud to contribute our XR streaming platform to this collaboration powered by KDDI and Deutsche Telekom edge infrastructure. Our proprietary 3D Streaming CODEC enables the highest content fidelity to be streamed at scale to even lightweight smartphones where processing and battery power is limited."

About KDDI Corporation

To individual customers, we provide smartphone, mobile phone, and other mobile communication services as well as fixed-line services including "au HIKARI." Furthermore, we are also providing MVNO services within group companies such as UQ Communications in addition to mobile services under the au brand. Going forward, we will further expand and integrate telecommunications services with life design services such as commerce, finance, energy, entertainment, and education to provide new forms of experience value for the enjoyment and convenience of our customers. In order to do so, our goal is to understand customers' needs by analyzing various types of data, offering appealing proposals, and becoming an important part of our customers' lives.

<https://www.kddi.com/english/corporate/kddi/our-business/personal/>.

About Deutsche Telekom AG

Deutsche Telekom is one of the world's leading integrated telecommunications companies, with some 235.8 million mobile customers, 27.3 million fixed-network lines, and 21.3 million broadband lines. We provide fixed-network/broadband, mobile communications, Internet, and IPTV products and services for consumers, and information and communication technology (ICT) solutions for business and corporate customers.

Deutsche Telekom is present in more than 50 countries. With a staff of some 229,170 employees throughout the world, we generated revenue of 80.5 billion Euros in the 2019 financial year, about 66 percent of it outside Germany. (All figures taken from the 2019 Annual Report).

About Mawari Inc.

Mawari, Inc. has been pioneering the creation of cloud rendering and streaming technology for interactive XR experiences since 2018. Since then, Mawari's partner list is a who's-who of visionary innovators in telecom and entertainment including Sapporo Breweries Ltd., Adways Co., Ltd, AFK Australia and KDDI Corporation. As part of its larger technology stack, Mawari has developed a proprietary, XR-focused 3D Streaming Platform that renders 3D content in the cloud and delivers it efficiently to devices. Core to this is Mawari's unique, patent-pending 3D Streaming CODEC / compression technology that minimizes the weight of 3D content and enables real-time rendering and streaming to smartphones and XR glasses. Mawari's mission is to accelerate the arrival and widespread adoption of synthetic reality experiences to meet the demands of its visionary clients and has been working relentlessly to solve real-world challenges to meet the demands of visionary XR partners.

For more information, please visit <https://mawari.co.jp>.

About MobileEdgeX Inc.

(MORE TO FOLLOW)

KDDI, Deutsche Telekom, MobileEdgeX, Sturfee and -2-

MobileEdgeX is working with global mobile operators to deliver full control over multi-cloud edge deployments. The company's MobileEdgeX Edge-Cloud platform provides a common interface for managing application workloads anywhere, abstracted from underlying infrastructure, to maintain control over data, privacy and security. It also provides device native SDK and matching engines for operator and third-party application developers to maximize performance and efficiency for cloud-native applications at the edge. MobileEdgeX Edge-Cloud is proven via trials, PoC and deployments that span more than 20 global operators and a range of next-gen app developers. MobileEdgeX is an edge computing company founded by Deutsche Telekom AG and headquartered in San Jose, California.

For more information please see <https://mobiledegex.com>.

About Sturfee Inc.

Sturfee Inc. is a technology company developing breakthrough solutions in Visual Positioning Service (VPS) enabling smartphones, wearable, and autonomous machines recognize 3D surroundings and operate intelligently using AI and computer vision. Our mission is to create a highly scalable 1:1 machine readable representation of the world from the skies and ground. We offer 5G AI infrastructure as a service providing spatial intelligence to any camera device simply with a few images taken from the ground. In other words, we allow machines to "see" the world through cameras similar to how humans do. Once our cities become VPS-enabled, the possibilities are endless. Augmented Reality (AR) is the first use case we enable.

Photos accompanying this announcement are available at

<https://www.globenewswire.com/NewsRoom/AttachmentNg/d90dc769-965a-4733-93bd-1f05f0007f41>

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Document PZON000020211026ehaq000b9

Asia Pacific Telecommunications Insight
Industry Trend Analysis - Quick View: JTower Investment To Unlock Cost Savings, Profitability For Rakuten Mobile

647 words

25 October 2021

Fitch Solutions Industry Research Reports

BMIAA

English

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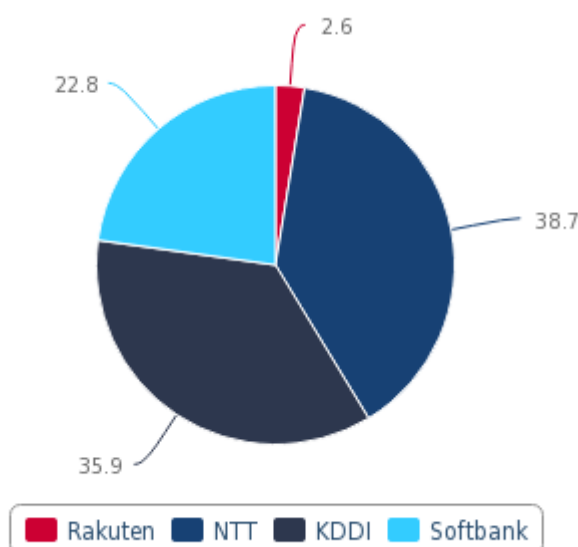
The Latest: Rakuten has bought a minority stake in Japanese telecoms tower company JTower, in a deal it hopes will promote **infrastructure** sharing and alleviate network development costs amid extensive losses.

Implications: Rakuten - which is Japan's newest mobile network operator - has been using JTower's indoor equipment utilising **infrastructure** sharing since January 2020 but this latest deal is expected to expand their cooperation significantly.

In an attempt to compete against its highly established rivals, Rakuten has pursued a programme of rapid network expansion, launching its commercial 4G offering in April 2020 and then its 5G service six months later in October. However, the accelerated network development has come at the expense of the operator's balance sheet, with operating losses reaching USD900mn in Q221, up by 85% over the year. Using shared infrastructure will reduce the costs associated with network expansion, as well as hastening Rakuten's network deployment.

Although the deal with JTower should ease capital expenditures associated with the further development of 4G/5G networks, Rakuten will need to achieve sustained growth to compete with its peers as well as to balance its books. In June 2021, Rakuten held a market share of roughly 2.6% compared to its rivals NTT DoCoMo with 38.7%, KDDI with 35.9% and Softbank's 22.8%.

Rakuten Making Aggressive Attempts To Carve Out Market Share...
 Mobile Market Shares (%) Q221



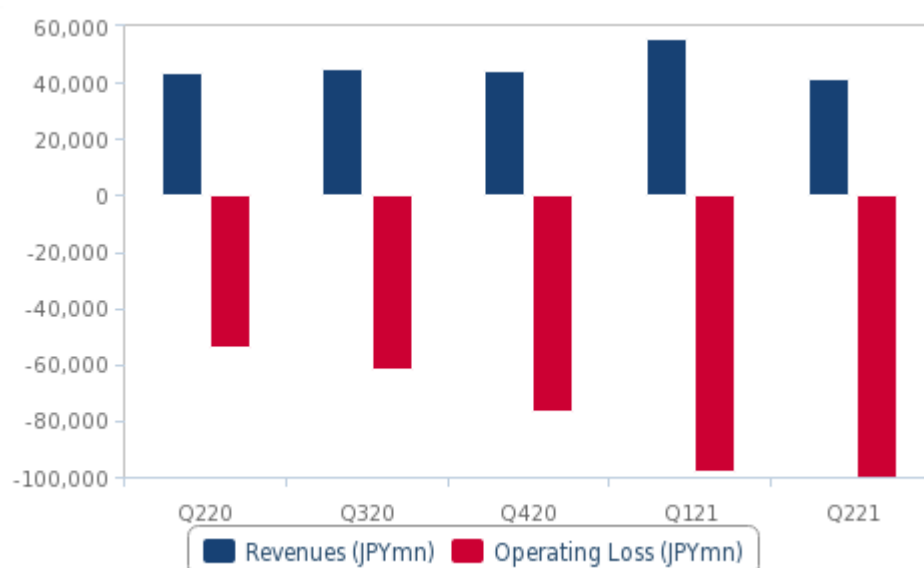
Source: Operators, Fitch Solutions.

In an attempt to cement a position in the market, Rakuten has engaged in aggressive price competition to attract subscribers. In April 2020, the operator launched its 'Unlimit' price plan which gave customers unlimited data and calls for JPY2,980 (USD27.6) a month, spurring the other MNOs to follow suit and offer similarly priced deals. As a result, we expect ARPUs to dampen in the short-to-medium term and add downside risk to revenue growth for all operators present in the market.

Rakuten has repeatedly expressed its target to turn profitable by 2023 and we suspect this goal to be the primary driver behind the acquisition of a minority stake in JTower, especially given the fact it needs to rapidly expand its rollout after already twice delaying its 4G coverage targets. Rakuten had first set mid-2021 as the date for extending 4G coverage to 96% of the population before prolonging this to some point in the second-half of the year. As of October 2021, the operator had deferred the target again, outlining March 2022 as the new date for completion. It seems as though semiconductor supply issues have added key headwinds to Rakuten's 4G deployment after the shortages have led to delays installing around 10,000 4G base stations. As of September 2021, Rakuten was around 14,000 base stations short of its 44,000 goal.

...At The Expense Of Its Balance Sheet

Rakuten Mobile Segment Revenues & Operating Loss (JPYmn) 2020-2021



<TD>Source: Rakuten, Fitch Solutions

What's Next: Whilst we expect the enhanced collaboration between Rakuten and JTower to have some positive effect on the former's ability to accelerate its network coverage, we note that external headwinds remain. Firstly, Rakuten faces an arduous experience against heavy competitive pressures as it attempts to carve out a meaningful market share among its rivals. Secondly, the operator's bottom line is likely to worsen over the short-term as it drives to complete its 4G/5G rollouts. Furthermore, semiconductor shortages are expected to get worse before they begin to improve over 2022, so it is highly likely we could see Rakuten's network deployment get delayed once more.

Nevertheless, Rakuten's push to promote network sharing should alleviate capital expenditures associated with network rollout over the medium-term though its financial future remains uncertain at the time of writing.

Document BMIAA00020220105ehap000d8

Corporate Financing Week
Industry Trend Analysis - Quick View: JTower Investment To Unlock Cost Savings, Profitability For Rakuten Mobile

646 words

25 October 2021

Corporate Financing Week

CFWK

English

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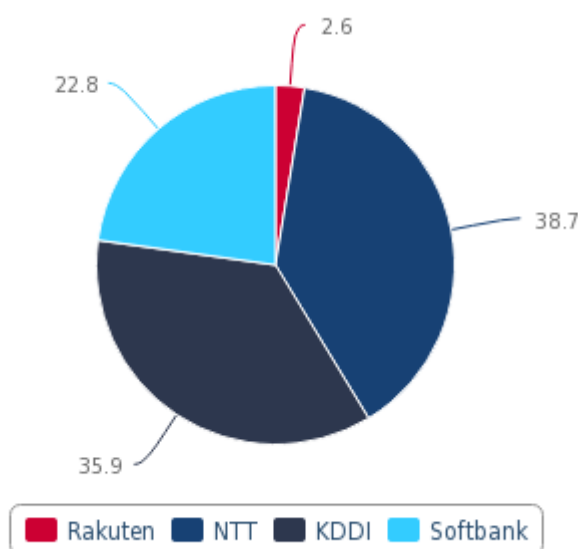
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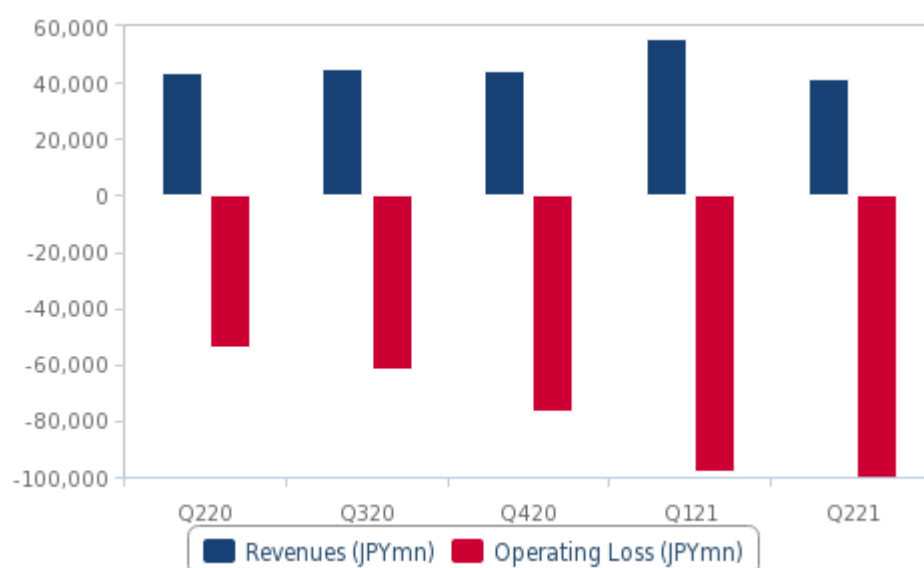
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Emerging Markets Monitor

EMDN

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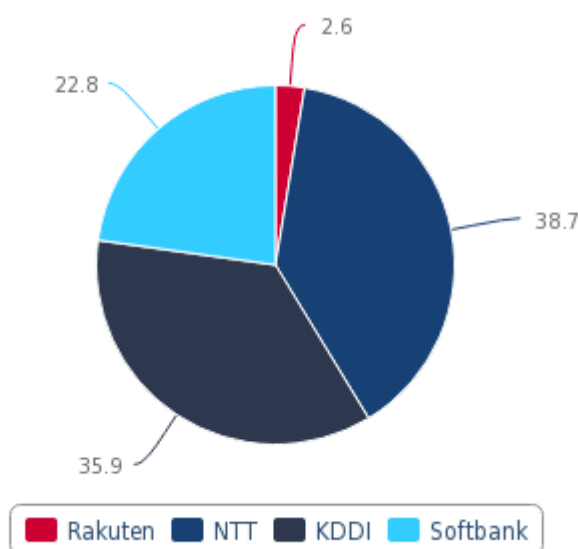
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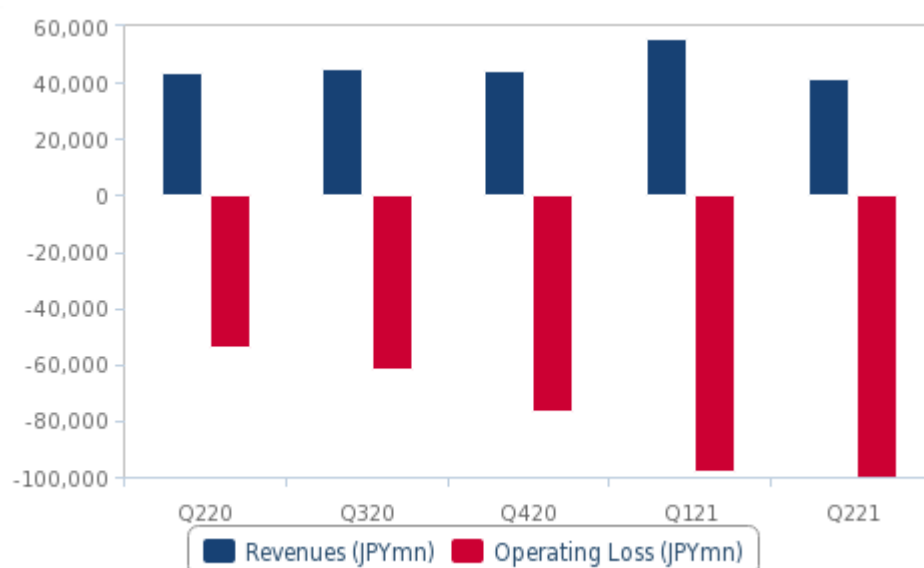
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Rakuten Mobile Segment Revenues & Operating Loss (JPYmn) 2020-2021



<TD>Source: Rakuten, Fitch Solutions

What's Next: Whilst we expect the enhanced collaboration between Rakuten and JTower to have some positive effect on the former's ability to accelerate its network coverage, we note that external headwinds remain. Firstly, Rakuten faces an arduous experience against heavy competitive pressures as it attempts to carve out a meaningful market share among its rivals. Secondly, the operator's bottom line is likely to worsen over the short-term as it drives to complete its 4G/5G rollouts. Furthermore, semiconductor shortages are expected to get worse before they begin to improve over 2022, so it is highly likely we could see Rakuten's network deployment get delayed once more.

Nevertheless, Rakuten's push to promote network sharing should alleviate capital expenditures associated with network rollout over the medium-term though its financial future remains uncertain at the time of writing.

Document EMDN000020211104ehap00003

ScaleOut Software; ScaleOut Software Announces Machine Learning Capabilities for its ScaleOut Digital Twin Streaming Service(TM)

849 words

18 October 2021

Journal of Engineering

JOENG

562

English

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2021 OCT 18 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- ScaleOut Software announced major extensions to its ScaleOut Digital Twin Streaming Service(TM) that enable real-time digital twin software to implement and host machine learning and statistical analysis algorithms that immediately identify unexpected behaviors exhibited by incoming telemetry. Real-time **digital twins** can now make extensive use of Microsoft's ML.NET machine learning library to implement these groundbreaking capabilities for virtually any IoT device or source object. Integration of machine learning with real-time **digital twins** offers powerful new options for real-time monitoring across a wide variety of applications. For example, **cloud**-based real-time **digital twins** can track a fleet of trucks to identify subtle changes in key engine parameters with predictive analytics that avoid costly failures.

Security monitors tracking perimeter entrances and sound sensors can use machine learning techniques to automatically identify unexpected behaviors and generate alerts. By harnessing the no-code ScaleOut Model Development Tool(TM), a real-time digital twin can easily be enhanced to automatically analyze incoming telemetry messages using machine learning techniques. Machine learning provides important real-time insights that enhance situational awareness and enable fast, effective responses. The tool provides three configuration options for analyzing numeric parameters contained within incoming messages to spot issues as they arise: Spike Detection: Tracks a single parameter from a data source to identify a spike in its values over time using an adaptive kernel density estimation algorithm implemented by ML.NET. Trend Detection: Also tracks a single parameter to identify a trend change, such as an unexpected increase over time for a parameter that is normally stable, using a linear regression algorithm that detects inflection points. Multi-Variable Anomaly Detection: Tracks a set of related parameters in aggregate to identify anomalies using a user-selected machine-learning algorithm implemented by ML.NET that performs binary classification with supervised learning.

Once configured through the ScaleOut Model Development Tool, the ML algorithms run automatically and independently for each data source within their corresponding real-time digital twins as incoming messages are received. Each real-time digital twin can automatically capture anomalous events for follow-up analysis and generate alerts to popular alerting providers, such as Splunk, Slack, and Pager Duty, to support remediation by service or security teams. "We are excited to offer powerful machine learning capabilities for real-time digital twins that will make it even easier to immediately spot issues or identify opportunities across a large population of data sources," said Dr. William Bain, ScaleOut Software's CEO and founder. "ScaleOut Software has built the next step in the evolution of the Microsoft Azure IoT and ML.NET ecosystem, and we look forward to helping our customers harness these technologies to enhance their real-time monitoring and streaming analytics." Benefits of ScaleOut's Real-Time Digital Twins with Machine Learning Integrating machine learning into ScaleOut's real-time digital twins offers these key benefits: Powerful New Capabilities for Tracking Data Sources: The use of machine learning dramatically enhances the ability of streaming analytics running in real-time digital twins to automatically predict and identify emerging issues, thereby boosting their effectiveness. Simultaneous Tracking for Thousands of Data Sources: The integration of machine learning with real-time digital twins using in-memory computing techniques enables thousands of data streams to be independently analyzed in real-time with fast, scalable performance. Fast, Easy Application Deployment: With the ScaleOut Model Development Tool, these new machine learning capabilities can be configured in minutes using an intuitive GUI. No code development or library integration is required. Applications can optionally take advantage of a fully integrated rules engine to enhance their real-time analytics. Seamless Use of Microsoft's Powerful Machine Learning Library: Users can automatically take advantage of Microsoft's industry-leading technology for machine learning (ML.NET) to enhance their real-time device tracking and streaming analytics. Virtually Unlimited Application: These new capabilities are useful across a wide variety of applications that track numeric telemetry, with use cases including telematics, logistics, security, healthcare, retail, financial services, and many others.

For more information, please visit www.scaleoutsoftware.com and follow @ScaleOut_Inc on Twitter.

Additional Resources: Machine Learning Supercharges Real-Time Digital Twins Blog Post ScaleOut Digital

Twin Streaming Service Product Page About ScaleOut Software Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in-memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon. View source version on businesswire.com: <https://www.businesswire.com/news/home/20211005005300/en/>

Keywords for this news article include: Cyborgs, Algorithms, Cybersecurity, Machine Learning, ScaleOut Software, Emerging Technologies, Information Technology.

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Document JOENG00020211018ehai002xt

Sustainability Research; Study Results from Muroran Institute for Technology in the Area of Sustainability Research Reported (Towards High-efficient Transaction Commitment In a Virtualized and Sustainable Rdbms)

494 words

8 October 2021

Economics Week

ECOWEK

844

English

© Copyright 2021 Economics Week via VerticalNews.com

2021 OCT 15 (VerticalNews) -- By a News Reporter-Staff News Editor at Economics Week -- Investigators discuss new findings in **Sustainability** Research. According to news originating from Hokkaido, Japan, by VerticalNews correspondents, research stated, "The relational database service in **cloud** usually achieves energy efficiency by using virtualization technology, in which it consolidates multiple independent database systems into a single physical machine while enforcing the **hardware**-level isolation among them. However, the disk I/O performance is inevitably hurt due to the resource contention on the shared device."

Financial supporters for this research include National Natural Science Foundation of China (NSFC), National Natural Science Foundation of Guangdong Province, Pearl River S&T Nova Program of Guangzhou, Grants-in-Aid for Scientific Research (KAKENHI), KDDI Corporation.

Our news journalists obtained a quote from the research from Muroran Institute for Technology, "We propose VMSQL, a novel disk I/O model for the virtualized relational database management system (RDBMS). VMSQL has two innovations over the original disk model of virtualized database systems. First, VMSQL enforces the synchronous operation in guest operating system to handle with the transaction commitment. Due to its simplicity, a portion of CPU cycles is decoupled from I/O buffer management and then used to serve the upcoming requests, thereby improving their response times. Second, in host system, VMSQL asynchronizes the storage path of transactions which are committed from the different co-located guest databases. An obvious advantage of this procedure is that systems can apply host-level improvements into the disk I/O performance of virtualized RDBMS, relieving the random I/O and enhancing the throughput of whole system. We implement a prototype of this Sync-Async model in QEMU-KVM hypervisor, in which the InnoDB engine is deployed in the guest operating system. Extensive experiments are conducted to verify its advantages and the results are positive without any loss of ACID-compliance."

According to the news editors, the research concluded: "In the meanwhile, VMSQL incurs moderate overhead at the hypervisor layer."

This research has been peer-reviewed.

For more information on this research see: Towards High-efficient Transaction Commitment In a Virtualized and Sustainable Rdbms. IEEE Transactions on Sustainable Computing, 2021;6(3):507-521. IEEE Transactions on Sustainable Computing can be contacted at: IEEE-Institute of Electrical and Electronics Engineers Inc, 445 Hoes Lane, Piscataway, NJ 08855-4141, USA.

The news correspondents report that additional information may be obtained from Mianxiong Dong, Muroran Institute for Technology, Dept. of Information and Electrical Engineering, Muroran, Hokkaido 0508585, Japan. Additional authors for this research include Dingding Li, Yijie Zhong, Yong Tang, Kaoru Ota and Jian Qiu.

Keywords for this news article include: Hokkaido, Japan, Asia, Information Technology, Sustainability Research, Muroran Institute for Technology.

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ScaleOut Software Announces Machine Learning Capabilities for its ScaleOut Digital Twin Streaming Service(TM)

853 words

5 October 2021

15:00

Business Wire

BWR

English

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Organizations Can Now Gain No-Code Machine Learning for Spike, Trend and Anomaly Detection with Real-Time **Digital Twins** Harnessing Microsoft ML.NET

BELLEVUE, Wash. --(BUSINESS WIRE)--October 05, 2021--

ScaleOut Software today announced major extensions to its ScaleOut Digital Twin Streaming Service(TM) that enable real-time digital twin software to implement and host machine learning and statistical analysis algorithms that immediately identify unexpected behaviors exhibited by incoming telemetry. Real-time digital twins can now make extensive use of Microsoft's ML.NET machine learning library to implement these groundbreaking capabilities for virtually any IoT device or source object.

Integration of machine learning with real-time digital twins offers powerful new options for real-time monitoring across a wide variety of applications. For example, cloud-based real-time digital twins can track a fleet of trucks to identify subtle changes in key engine parameters with predictive analytics that avoid costly failures. Security monitors tracking perimeter entrances and sound sensors can use machine learning techniques to automatically identify unexpected behaviors and generate alerts.

By harnessing the no-code ScaleOut Model Development Tool(TM), a real-time digital twin can easily be enhanced to automatically analyze incoming telemetry messages using machine learning techniques. Machine learning provides important real-time insights that enhance situational awareness and enable fast, effective responses. The tool provides three configuration options for analyzing numeric parameters contained within incoming messages to spot issues as they arise:

- Spike Detection: Tracks a single parameter from a data source to identify a spike in its values over time using an adaptive kernel density estimation algorithm implemented by ML.NET.
- Trend Detection: Also tracks a single parameter to identify a trend change, such as an unexpected increase over time for a parameter that is normally stable, using a linear regression algorithm that detects inflection points.
- Multi-Variable Anomaly Detection: Tracks a set of related parameters in aggregate to identify anomalies using a user-selected machine-learning algorithm implemented by ML.NET that performs binary classification with supervised learning.

Once configured through the ScaleOut Model Development Tool, the ML algorithms run automatically and independently for each data source within their corresponding real-time digital twins as incoming messages are received. Each real-time digital twin can automatically capture anomalous events for follow-up analysis and generate alerts to popular alerting providers, such as Splunk, Slack, and Pager Duty, to support remediation by service or security teams.

"We are excited to offer powerful machine learning capabilities for real-time digital twins that will make it even easier to immediately spot issues or identify opportunities across a large population of data sources," said Dr. William Bain, ScaleOut Software's CEO and founder. "ScaleOut Software has built the next step in the evolution of the Microsoft Azure IoT and ML.NET ecosystem, and we look forward to helping our customers harness these technologies to enhance their real-time monitoring and streaming analytics."

Benefits of ScaleOut's Real-Time Digital Twins with Machine Learning

Integrating machine learning into ScaleOut's real-time digital twins offers these key benefits:

- Powerful New Capabilities for Tracking Data Sources: The use of machine learning dramatically enhances the ability of streaming analytics running in real-time digital twins to automatically predict and identify emerging issues, thereby boosting their effectiveness.
- Simultaneous Tracking for Thousands of Data Sources: The integration of machine learning with real-time digital twins using in-memory computing techniques enables thousands of data streams to be independently analyzed in real-time with fast, scalable performance.
- Fast, Easy Application Deployment: With the ScaleOut Model Development Tool, these new machine learning capabilities can be configured in minutes using an intuitive GUI. No code development or library integration is required. Applications can optionally take advantage of a fully integrated rules engine to enhance their real-time analytics.
- Seamless Use of Microsoft's Powerful Machine Learning Library: Users can automatically take advantage of Microsoft's industry-leading technology for machine learning (ML.NET) to enhance their real-time device tracking and streaming analytics.
- Virtually Unlimited Application: These new capabilities are useful across a wide variety of applications that track numeric telemetry, with use cases including telematics, logistics, security, healthcare, retail, financial services, and many others.

For more information, please visit www.scaleoutsoftware.com and follow @ScaleOut_Inc on Twitter.

Additional Resources:

- Machine Learning Supercharges Real-Time Digital Twins Blog Post
- ScaleOut Digital Twin Streaming Service Product Page

About ScaleOut Software

Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in-memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon.

View source version on businesswire.com: <https://www.businesswire.com/news/home/20211005005300/en/>

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Sep 22 Release: au Jibun Bank Corp.

866 words

5 October 2021

R & I - News Release

JBRI

English

(c) 2021 Japan Rating and Investment Information, Inc.

Rating and **Investment** Information, Inc. (R&I) has announced the following:

ISSUER: au Jibun Bank Corp. Issuer Rating: AA-, Assigned Rating Outlook: Stable

Short-term Debts: a-1+, Assigned

RATIONALE: au Jibun Bank Corp. is an Internet bank owned 67.2% by KDDI Corp. (Sec. Code: 9433, Issuer Rating: AA-) through au Financial Holdings Corp. (auFH), which manages the KDDI Group's financial operations. It is of very high strategic importance to KDDI that aims at profit growth through the integration of the telecommunication services segment and the life design domain including the financial business. R&I has assigned an Issuer Rating of AA- to au Jibun Bank, directly reflecting KDDI's creditworthiness, and a short-term debt rating of a-1+.

Specializing in providing financial services on smartphones, the Bank has established a business model centered on individual customer transactions. It acquires new customers by prompting them to open accounts at au shops and introducing mutual customers between subsidiaries of auFH. In addition, the Bank has built its own customer base for mortgages by taking advantage of its competitive interest rates and products.

The amounts of deposits and earnings per customer are small compared to other internet banks. The key to enhancing the earnings base is to provide products and services that can differentiate au Jibun Bank from other banks, as well as promoting customer acquisition both inside and outside the Group and increasing transactions by using the Ponta system into which KDDI's customer reward point program was integrated in 2020.

The Bank's risk appetite is weak in consumer lending and investments in securities. Since borrowers are limited to individual customers, a credit portfolio is highly diversified into small loans. Most of the securities the Bank holds are bonds with high ratings. Its securities portfolio does not include shares and contains only a few investment trusts. Both credit risk and market risk are low, and therefore the Bank's risk resilience based on economic capital is commensurate with the AA rating category.

The Bank's credit management is prudent and asset quality is sound. While the outstanding balance of proper mortgages (not supported by surety companies) is growing substantially, their default rate remains at a low level. With regard to card loans and specific purpose loans, risks are transferred through external guarantees. When compared to financial institutions that have ample liquid deposits for payroll and transfer accounts, au Jibun Bank has a weak base for procurement of individual customers' deposits. Nevertheless, there is no concern over liquidity in both yen and foreign currencies. The evaluation is positively affected by the fact that au Jibun Bank can receive certain support from KDDI as well as MUFG Bank, Ltd., which holds a stake in the Bank as an equity method affiliate, in case of any crisis.

Earning capacity has room for improvement. The core overhead ratio is high at about 90%, and the Bank must address the challenge of improving cost efficiency through a review of system-related expenses. Under circumstances where prolonged low interest rates make a remarkable increase in net interest income difficult, it is highly important to diversify earnings sources by, for instance, strengthening payment and financial instrument transactions. Since credit cost is rarely incurred because of the business model centered on individual customer transactions, the Bank's earning capacity after deduction of credit cost is stable.

The primary rating methodologies applied to this rating are provided at "R&I's Basic Methodology for Corporate Credit Ratings", "Shared Rating Approach for Financial Institutions, etc.", "Depository Financial Institutions" and "R&I's Analytical Approach to Parent and Subsidiary Companies". The methodologies are available at the web site listed below, together with other rating methodologies that are taken into consideration when assigning the rating. https://www.r-i.co.jp/en/rating/about/rating_method.html

R&I RATINGS: ISSUER: au Jibun Bank Corp.

For rated entities, please refer to R&I's website at <https://www.r-i.co.jp>.

Credit ratings are R&I's opinions on an issuer's general capacity to fulfill its financial obligations and the certainty of the fulfillment of its individual obligations as promised (creditworthiness) and are not statements of fact. Further, R&I does not state its opinions about any risks other than credit risk, give advice regarding investment decisions or financial matters, or endorse the merits of any investment. R&I does not undertake any independent verification of the accuracy or other aspects of the related information when issuing a credit rating and makes no related representations or warranties. R&I is not liable in any way for any damage arising in relation to credit ratings (including amendment or withdrawal thereof). As a general rule, R&I issues a credit rating for a fee paid by the issuer. For details, please refer to <https://www.r-i.co.jp/en/docs/policy/site.html>.

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Press Release

Fujitsu And KDDI Leverage 5G Technologies In Partnership To Solve Social Issues

JCN Newswire

1,353 words

28 September 2021

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Scoop.co.nz

SCCONZ

English

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Fujitsu and KDDI will verify the interconnection of their respective 5G network services and optimal use of 5G applications and data

"5G Service **Platform**" aims to enrich cities and the consumer experience by realizing a world in which the experience of real places is expanded by virtual technology- **Partnership** will draw on the solutions, expertise and alliance partners of the two companies to create an open **ecosystem**

TOKYO, Sept 28, 2021 - (JCN Newswire) - Fujitsu Limited and KDDI Corporation today announced an agreement to collaborate on creating new services that enrich the customer experience and contribute to the resolution of social issues by utilizing Fujitsu's private 5G and KDDI's au 5G technologies, with the ultimate aim of realizing a new digital society and co-creating businesses based on 5G.

As the first major steps of this partnership, Fujitsu and KDDI will implement the following initiatives from September 28, 2021:

- 1) Demonstration of technology toward the realization of a "5G Service Platform" that interconnects private 5G with au 5G
- 2) Co-creation of B to B to X(1) services that combine the real and the virtual worlds
- 3) Building an ecosystem with partners through mutual participation in the 5G Alliance operated by the two companies

Platform Services Concept: 5G Service Platform

The "5G Service Platform" is a platform service that links private 5G and au 5G services to provide a comprehensive range of B to B to X services. Through the "5G Service Platform," Fujitsu and KDDI aim to realize a world where the experience in real places such as shopping malls, gyms and restaurants can be expanded seamlessly with virtual reality. It will be provided to companies that want to enhance their consumer businesses, companies that want to increase the value they offer through the facilities they manage and their communities as a whole, as well as local governments.

Background

The many restrictions and impacts of the COVID-19 pandemic have made it difficult for people to share space with one another and communicate freely, highlighting the urgent need to build more sustainable and resilient social systems and accelerate the movement toward the use of digital technologies in a way benefits social and personal wellbeing. The threat posed by global climate change also demands that companies find new ways to realize efficient use of energy and reduction of waste by connecting people, goods, and services in real time, contributing to decarbonization of businesses and local governments as well as to solutions for environmental and social issues more broadly. To resolve these social issues and support the digital transformation (DX) of society, the two companies have entered into a partnership to provide new experiential value and services that combine the real and virtual worlds based on 5G.

Partnership Overview

1. Private 5G and au 5G interconnection and technology demonstration

Private 5G services provided by Fujitsu for IoT devices such as high-definition cameras and robots will be linked with au 5G services provided by KDDI for smartphones and tablets. In addition to interconnection, the

two companies will conduct technology demonstrations to realize the optimal placement of applications and data by seamlessly fusing Multi-access Edge Computing (MEC) and Local Edge Computing (Local Edge).

2. Co-creation for providing new services utilizing 5G

Based on technology demonstrations, Fujitsu and KDDI aim to provide the "5G Service Platform" using 5G, IoT, video content, and XR. As a first step, the two companies will create a system for facility owners and operators to reduce their environmental impact and improve operational efficiency by optimizing the entire facility and provide new experiential value to customers visiting the facility. After that, Fujitsu and KDDI aim to integrate not only the city and facilities, but also the real and virtual experiences of society as a whole.

Through the "5G Service Platform" the two companies will enrich the consumer experience by linking various services based on human activities. For example, at the gym, consumers will be able to enjoy an individualized exercise experience according to their daily activity and health status. In addition, Fujitsu and KDDI will offer personalized services that suit the tastes and circumstances of each customer, such as a restaurant where customers can receive a recommended menu that suits their personal health needs.

3. Mutual participation in 5G alliance operated by Fujitsu and KDDI

The two companies will mutually participate in their respective 5G alliances, the "Private 5G Partnership Program"(2) and the "KDDI 5G Business Co-creation Alliance"(3). By linking the assets provided by Fujitsu, such as private 5G related wireless technology, base station construction technology, and solution knowledge of various industries, with KDDI's solutions for au 5G and 5G and its service infrastructure, such as ID, billing, and payment services, Fujitsu and KDDI will co-create a solution model that combines corporate systems and consumer-oriented services. The two companies also aim to create an open partner ecosystem by leveraging the assets of other partners in both alliances.

Comments from Tomonori Goto, SVP, Director of 5G Vertical Service Office, Fujitsu Limited

"Fujitsu is proud to work with a variety of innovative partners to co-create businesses that address important social issues. We are very pleased to announce together with KDDI our shared vision for society, and we anticipate that this partnership will further expand the value created by 5G and accelerate our efforts to address social issues."

Comments from Akihito Fujii, Executive Officer, General Manager of Service Planning and Development Division, KDDI Corporation

"Through the establishment of the 5G Business Co-creation Alliance and other initiatives, KDDI is cooperating with other companies across positions and industries to promote the use of 5G to solve social issues and create new markets. We are very pleased to collaborate with Fujitsu to provide new value in the B-to-B-to-X model by linking our 5G assets and infrastructure."

(1) B to B to X:

Abbreviation of Business to Business to X. A business model in which companies and organizations (first B) that provide platforms and services for companies and organizations make companies and organizations (second B) that have consumers as customers use the platform and services, and the first B and the second B work together to provide services suitable for end users (X), such as consumers.

(2) Private 5G Partnership Program:

Fujitsu's program that co-creates solutions for customer's business innovation and solving customer's problems by leveraging Fujitsu's private 5G and other technologies and expertise, as well as partner companies' advanced technologies.

(3) KDDI 5G Business Co-creation Alliance:

KDDI's alliance program which aims to create markets and solve social issues through the use of 5G by collaborating across positions and industries. It provides one-stop support for issues that cannot be solved by a single company, from the creation of new collaborative businesses through partnerships.

About KDDI

KDDI is telecommunication service provider in Japan, offering both mobile and fixed-line communications. With its well-established base of over 58 million customers, and through mobile services and shops offering its "au" brand, KDDI is expanding its services into the "Life Design" business, which includes e-commerce, fintech, nationwide electric power utility services, entertainment and education. With a 60-year history, KDDI is now focusing on creating smart infrastructure through IoT technologies and open innovation with partners and start-up companies in diverse industries. KDDI is accelerating the global growth of its

telecommunications consumer business, with operations in Myanmar and Mongolia, and in the global ICT business with the "TELEHOUSE" brand.

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Approximately 126,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 3.6 trillion yen (US\$34 billion) for the fiscal year ended March 31, 2021. For more information, please see www.fujitsu.com.

Document SCONZ0020210929eh9s00004

Fujitsu and KDDI Leverage 5G Technologies in Partnership to Solve Social Issues

1,352 words

28 September 2021

14:58

JCN Newswire

JAPCOR

English

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telecommunications consumer business, with operations in Myanmar and Mongolia, and in the global ICT business with the "TELEHOUSE" brand.

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Approximately 126,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 3.6 trillion yen (US\$34 billion) for the fiscal year ended March 31, 2021. For more information, please see www.fujitsu.com.

Source: Fujitsu Ltd

Document JAPCOR0020210928eh9s0005I

KDDI Corporation - Fujitsu and KDDI Leverage 5G Technologies in Partnership to Solve Social Issues

KDDI Corporation published this content on 28 Sep 2021 and is solely responsible for the information contained herein. Distributed by PUBT, unedited and unaltered, on 28 Sep 2021 04:35:19 UTC.

891 words

28 September 2021

Public Companies News and Documents via PUBT

LCDVP

English

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[* Click here to view this document in its original format](#)

Fujitsu and KDDI Leverage 5G Technologies in Partnership to Solve Social Issues

* Fujitsu Limited

* KDDI Corporation

September 28, 2021

News facts:

* Fujitsu and KDDI will verify the interconnection of their respective 5G network services and optimal use of 5G applications and data

* "5G Service Platform" aims to enrich cities and the consumer experience by realizing a world in which the experience of real places is expanded by virtual technology

* Partnership will draw on the solutions, expertise and alliance partners of the two companies to create an open ecosystem

Tokyo, September 28, 2021- Fujitsu Limited and KDDI Corporation today announced an agreement to collaborate on creating new services that enrich the customer experience and contribute to the resolution of social issues by utilizing Fujitsu's private 5G and KDDI's au 5G technologies, with the ultimate aim of realizing a new digital society and co-creating businesses based on 5G.

As the first major steps of this partnership, Fujitsu and KDDI will implement the following initiatives from September 28, 2021:

Platform Services Concept: 5G Service Platform

The "5G Service Platform" is a platform service that links private 5G and au 5G services to provide a comprehensive range of B to B to X services. Through the "5G Service Platform," Fujitsu and KDDI aim to realize a world where the experience in real places such as shopping malls, gyms and restaurants can be expanded seamlessly with virtual reality. It will be provided to companies that want to enhance their consumer businesses, companies that want to increase the value they offer through the facilities they manage and their communities as a whole, as well as local governments.

Background

The many restrictions and impacts of the COVID-19 pandemic have made it difficult for people to share space with one another and communicate freely, highlighting the urgent need to build more sustainable and resilient social systems and accelerate the movement toward the use of digital technologies in a way benefits social and personal wellbeing. The threat posed by global climate change also demands that companies find new ways to realize efficient use of energy and reduction of waste by connecting people, goods, and services in real time, contributing to decarbonization of businesses and local governments as well as to solutions for environmental and social issues more broadly. To resolve these social issues and support the digital transformation (DX) of society, the two companies have entered into a partnership to provide new experiential value and services that combine the real and virtual worlds based on 5G.

Partnership Overview

Comments from Tomonori Goto, SVP, Director of 5G Vertical Service Office, Fujitsu Limited

"Fujitsu is proud to work with a variety of innovative partners to co-create businesses that address important social issues. We are very pleased to announce together with KDDI our shared vision for society, and we anticipate that this partnership will further expand the value created by 5G and accelerate our efforts to address social issues.

Comments from Akihito Fujii, Executive Officer, General Manager of Service Planning and Development Division, KDDI Corporation

"Through the establishment of the 5G Business Co-creation Alliance and other initiatives, KDDI is cooperating with other companies across positions and industries to promote the use of 5G to solve social issues and create new markets. We are very pleased to collaborate with Fujitsu to provide new value in the B-to-B-to-X model by linking our 5G assets and infrastructure."

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All company or product names mentioned here are trademarks or registered trademarks of their respective owners. Information provided in this press release is accurate at time of publication and is subject to change without advance notice.

Disclaimer

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Document LCDVP00020210928eh9s003mm

KDDI selects SpaceX's Starlink for cellular backhaul

CT Bureau

Distributed by Contify.com

260 words

13 September 2021

Communications Today

ATCOMT

English

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KDDI CORPORATION (Headquarters: Chiyoda, Tokyo, President: Makoto Takahashi, "KDDI") announces that it has selected Starlink to deliver high-speed, low-latency broadband internet to KDDI's 1,200 remote mobile towers as its network backhaul provider. As soon as 2022, KDDI will be able to offer an urban mobile **connectivity** experience to its rural mobile customers.

Developed by SpaceX, Starlink provides high-speed, low-latency satellite broadband internet around the globe. Starlink satellites are positioned in low-Earth orbit at an altitude of 550 km, over 65 times closer than traditional satellite operators, so it can achieve significantly lower latency and higher transmission speeds for its end users. Using Starlink to backhaul service from these remote stations complements KDDI's urban towers that utilize fiber for backhaul.

Starlink is currently delivering initial beta service to over 100,000 users and is continuing expansion to near global coverage of the populated world.

An experimental license has been issued by the MIC (Ministry of Internal Affairs and Communications) to operate the ground station for Starlink service installed at KDDI's Yamaguchi Satellite Communication Center. Both companies have been conducting a series of technical demonstrations to evaluate its quality and performance.

For more than 50 years since KDDI succeeded in receiving the world's first trans-Pacific television relay in 1963, it has been contributing to the development of satellite communications as a pioneer, including those for disaster recovery, for data links to vessels and aircrafts, and for international video transmission.

Document ATCOMT0020210914eh9d00001

UPDATE1: KDDI teams up with SpaceX to give better access in remote areas

Kyodo

358 words

13 September 2021

05:17

Kyodo News

KYODO

English

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TOKYO, Sept. 13 -- Major Japanese telecommunications service provider KDDI Corp. said Monday it has joined hands with SpaceX to provide better access to users on remote islands and in mountainous regions in Japan via the U.S. firm's satellites.

KDDI said it aims to deliver with Space Exploration Technologies Corp., founded by tech billionaire Elon Musk, high-speed, low-latency broadband internet via SpaceX's Starlink satellites to 1,200 remote mobile towers as soon as 2022 so its rural customers can experience urban-level mobile **connectivity**.

Starlink satellites are positioned in low Earth orbit at an altitude of 550 kilometers, over 65 times closer than traditional satellites, providing higher transmission speeds for end users, according to KDDI.

Starlink is currently offering initial beta service to more than 100,000 users around the world and is continuing expansion toward global coverage. Customers of KDDI's "au" mobile service will face no additional charges due to the new service, the company added.

The Ministry of Internal Affairs and Communications has issued an experimental license to operate the ground station for Starlink service installed at KDDI's Yamaguchi Satellite Communication Center in western Japan, according to KDDI.

KDDI also said Monday it will launch later this month a new low-priced mobile service plan amid intense price competition with rival wireless carriers under government pressure to drastically reduce fees.

The plan dubbed "povo 2.0," which has no basic fees, gives customers more flexibility in terms of data and voice call usage, instead of a fixed amount of data service per month.

For example, customers can choose a service for 1-gigabyte usage per seven days at 390 yen (\$3.6) including tax, 20 gigabytes per 30 days for 2,700 yen and 60 gigabytes per 90 days at 6,490 yen, among other choices.

KDDI will finish accepting new customers for the current "povo" monthly plan, which offers 20-gigabyte services for 2,728 yen, in late September. To cut costs and lower fees, the company only takes applications for the "povo" discounted plans online.

==Kyodo

Document KYODO00020210913eh9d000p1

KDDI teams up with SpaceX to give better access in remote areas

Kyodo

208 words

13 September 2021

03:42

Kyodo News

KYODO

English

© 2021 Kyodo News

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==Kyodo

Document KYODO00020210913eh9d000dx

ScaleOut Software Founder and CEO to Speak at Global IoT Tech Expo

330 words

8 September 2021

15:00

PR Newswire

PRN

English

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During his session,

Dr. William Bain will discuss how a technology for in-memory computing will enable the next generation of connected **devices**

BELLEVUE, Wash., Sept. 8, 2021 /PRNewswire-PRWeb/ -- ScaleOut Software CEO and Founder, Dr. William Bain, will present a virtual session titled, "Real-Time Device Tracking with **Digital Twins**" during a series of talks on IoT digital **infrastructure** at the Global IoT Tech Expo presented by TechEx.

The fifth annual IoT Tech Expo Global is the leading event for IT professionals looking to learn about innovations that can provide a competitive advantage, improve customer experience, increase operational efficiencies, reduce costs and drive revenue growth.

WHAT: The complex web of communicating devices that surrounds us needs intelligent, real-time device tracking to extract its full benefits. Conventional streaming analytics architectures have not kept up with the growing demands of IoT. In this virtual event, Dr. William Bain will discuss how a new software technology called "in-memory computing with digital twins" can address this challenge, and independently track and analyze millions of IoT devices, provide feedback in milliseconds, and continuously visualize aggregated statistics every few seconds -- finally enabling IoT to deliver on its promises.

WHEN: Monday, September 13 from 11:30--11:40 a.m. BST

WHERE: Register to join the Virtual -- IoT Tech Expo for free here

About ScaleOut Software

Founded in 2003, ScaleOut Software develops leading-edge software that delivers scalable, highly available, in-memory computing and streaming analytics technologies to a wide range of industries. ScaleOut Software's in-memory computing platform enables operational intelligence by storing, updating, and analyzing fast-changing, live data so that businesses can capture perishable opportunities before the moment is lost. It has offices in Bellevue, Washington and Beaverton, Oregon.

Follow ScaleOut Software on LinkedIn and Twitter.

Media Contact

Brendan Hughes, RH Strategic for ScaleOut Software, +1 (206) 403-5994, ScaleOutPR@rhstrategic.com

SOURCE ScaleOut Software

(END)

Document PRN0000020210908eh98000nx

KDDI to Extend Fee Exemption for "au Pay" Service

183 words

30 August 2021

07:28

Jiji Press English News Service

JIJi

English

© 2021 Jiji Press, Ltd.

Tokyo, Aug. 30 (Jiji Press)--KDDI Corp. <9433> said Monday that it will allow stores to continue accepting **payments** through its "au Pay" smartphone payment service without commission fees until the end of September next year.

The one-year extension of the campaign, which is expected to benefit smaller stores, is aimed at boosting competitiveness against other smartphone payment services and strengthening au Pay's customer base.

Stores accepting payments via au Pay must pay a commission fee of 2.6 pct of the payment amount, but the fee has been suspended as a temporary measure.

The campaign applies to current participating stores as well as newcomers, regardless of the amount of sales.

Smartphone payment service PayPay has said that it will collect commission fees from smaller businesses using the service from October.

Meanwhile, the operator of the Rakuten Pay service has decided to launch a campaign to cut commission fees effectively to zero for one year for newly participating stores with annual sales of 1 billion yen or less.

<4689> <4755>

END

[Jiji Press]

Document JIJi000020210830eh8u000b7



Aug 17 Release: au Financial Service Corp.

676 words

19 August 2021

R & I - News Release

JBRI

English

(c) 2021 Japan Rating and Investment Information, Inc.

Rating and **Investment** Information, Inc. (R&I) has announced the following:

au Financial Service Corp. Issuer Rating: AA-, Assigned Rating Outlook: Stable

RATIONALE: au Financial Service Corp. is a consolidated subsidiary of KDDI Corp. (Sec. Code: 9433, Issuer Rating: AA-), which has a 98.5% stake therein through au Financial Holdings Corp. that manages the Group's financial business. The company engages primarily in credit card business and is of extremely high strategic importance to KDDI that aims at profit growth through the integration of telecommunications and the life design domain such as financial services. R&I has assigned an Issuer Rating of AA- to au Financial Service, directly reflecting KDDI's creditworthiness.

The credit card business has more than 6,000,000 cardmembers composed mainly of au mobile phone users. On the back of a program to proactively reward customers with points, the business sees quick growth of the number of cardmembers. Underpinned by payment of telecommunication service charges, etc. within the KDDI Group, it maintains a high rate of card utilization. Due to an increase in customers primarily using its credit card and the implementation of the Ponta point system, the credit card use outside the Group is expanding. The company will continue to acquire cardmembers mainly from mobile phone users of the KDDI Group and expand its transaction volume, in R&I's view. In addition, it also functions as a settlement agent to manage credit card payment in the KDDI Group collectively and contributes to streamlining operations and reducing costs.

The company outsources many of card operations to Mitsubishi UFJ Nicos Co., Ltd., which has a 1.5% investment stake in au Financial Service. Credit risk is contained, since operating receivables of the card business are provided with Mitsubishi UFJ Nicos credit guarantee. Risk resilience remains at a certain level, and the company can also expect the KDDI Group's support as necessary.

The company's ability to absorb costs with basic profits has room for improvement. While earnings are increasing along with its growing transaction volume, the burden of advertising and promotion costs to acquire cardmembers and facilitate the use of credit cards is on the rise as well. With fund procurement supported by KDDI's group finance, there is no particular concern about liquidity.

The primary rating methodologies applied to this rating are provided at "R&I's Basic Methodology for Corporate Credit Ratings", "Shared Rating Approach for Financial Institutions, etc.", "Credit Card and Credit Sales" and "R&I's Analytical Approach to Parent and Subsidiary Companies". The methodologies are available at the web site listed below, together with other rating methodologies that are taken into consideration when assigning the rating. https://www.r-i.co.jp/en/rating/about/rating_method.html

R&I RATINGS: ISSUER: au Financial Service Corp.

Issuer Rating RATING: AA-, Assigned RATING OUTLOOK: Stable

Credit ratings are R&I's opinions on an issuer's general capacity to fulfill its financial obligations and the certainty of the fulfillment of its individual obligations as promised (creditworthiness) and are not statements of fact. Further, R&I does not state its opinions about any risks other than credit risk, give advice regarding investment decisions or financial matters, or endorse the merits of any investment. R&I does not undertake any independent verification of the accuracy or other aspects of the related information when issuing a credit rating and makes no related representations or warranties. R&I is not liable in any way for any damage arising in relation to credit ratings (including amendment or withdrawal thereof). As a general rule, R&I issues a credit rating for a fee paid by the issuer. For details, please refer to <https://www.r-i.co.jp/en/docs/policy/site.html>.

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Chiyoda-ku, Tokyo 101-0054, Japan

Document JBRI000020210819eh8j0002t

Antway (Tsukuri Oki.jp) Secures USD13.6 Million in Venture Funding

205 words

10 August 2021

MarketLine Financial Deals Tracker

FDTRA

English

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Deal In Brief

Antway Co Ltd (dba Tsukuri Oki.jp) a Japan-based provider of home-cooked food delivery service, has secured JPY1.5 billion (USD13.6 million) in venture funding from Nissay Capital Co., Ltd., Dimension Co., Ltd, JAFCO Group Co Ltd, KDDI Corp and SMBC Venture Capital Co., Ltd.

Deal Value (US\$ Million)	13.61
Deal Type	Venture Finance
Sub-Category	Growth Capital/Expansion
Deal Status	Completed: 2021-08-10

Deal Participants

Target (Company)	Tsukuri Oki.jp
Acquirer 1 (Company)	Dimension Co., Ltd
Acquirer 2 (Company)	JAFCO Co., Ltd.
Acquirer 3 (Company)	SMBC Venture Capital Co., Ltd.
Acquirer 4 (Company)	KDDI Corporation
Acquirer 5 (Company)	Nissay Capital Co., Ltd.

Deal Rationale

Antway will use the funds to strengthen its expansion of new large kitchens and the adoption of various positions, and solve the daily dietary issues facing more double-income families and the strengthening of recruitment and organizational structure.

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Document FDTRA00020210818eh8a0008c

SWIFT NAVIGATION-KDDI **PARTNERSHIP** TO BUILD ON PRECISE POSITIONING GLOBAL EXPANSION

NOREDA FARYZA BINTI MD YAACOB

353 words

21 July 2021

Bernama: The Malaysian National News Agency

AIWBRN

English

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KUALA LUMPUR, July 21 (Bernama) -- Swift Navigation, a San Francisco-based tech firm redefining GNSS (Global Navigation Satellite System) and precise positioning technology for autonomous vehicles, automotive, mobile and mass-market applications has announced a **partnership** with Tokyo-based KDDI Corporation.

KDDI is an international telecommunications company on the forefront of using technology innovations to provide a high-quality and high-reliability network that meets the communication needs of its global customers.

This partnership will be key in bringing Swift's precise positioning technology to the Japan market and adds KDDI as a key partner in the global expansion of Skylark precise positioning service — currently available across the continental US and Europe in partnership with Deutsche Telekom.

"Swift Navigation is delighted to be partnering with KDDI to expand Skylark's precise positioning in Japan and benefit customers around the globe," said Co-Founder and Chief Executive Officer at Swift Navigation, Timothy Harris.

Meanwhile, Executive Officer, Business Exploration & Development at KDDI CORPORATION, Hiromichi Matsuda said: "We believe that Swift's high-precision positioning solution further empowers our business capabilities in mobility space and contributes to the expansion of business coverage into smart vehicles."

Traditionally, precision GNSS corrections were provided using real-time kinematics (RTK) techniques, requiring a high density of reference stations and with limited fault tolerance.

According to a statement, by partnering with Swift, KDDI is able to utilise Swift's patented wide area corrections solution, a hybrid of precise point positioning (PPP) and RTK.

The solution delivers wide area corrections with a low density of reference stations, fast convergence, centimetre-level accuracy, all from a highly-reliable service delivered seamlessly via the cloud.

Accuracy that previously could benefit a few pieces of equipment on a jobsite — or in a field — is now accessible to millions of users across continents.

The accuracy of the Skylark precise positioning service enables lane-level positioning at fast convergence times to achieve required levels of safety, reliability, integrity and availability required by autonomous, mass-market and mobile applications.

-- BERNAMA

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Document AIWBRN0020210723eh7I0000e

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BRNAMA

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(c) 2021 Bernama - Malaysian National News Agency

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Document BRNAMA0020210723eh7I0001k



Swift Navigation and KDDI Announce **Partnership** to Build on the Global Expansion of Precise Positioning

739 words

20 July 2021

National Iraqi News Agency

NAIRAQ

English

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(GlobeNewswire) - Swift Navigation, a San Francisco-based tech firm redefining GNSS (Global Navigation Satellite System) and precise positioning technology for autonomous vehicles, automotive, mobile and mass-market applications, today announced a **partnership** with Tokyo-based KDDI Corporation. KDDI is an international telecommunications company on the forefront of using technology innovations to provide a high-quality and high-reliability network that meets the communication needs of its global customers. This **partnership** will be key in bringing Swifts precise positioning technology to the Japan market and adds KDDI as a key partner in the global expansion of Skylark precise positioning service currently available across the continental U.S. and Europe in **partnership** with Deutsche Telekom.

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Swift Navigation is delighted to be partnering with KDDI to expand Skylarks precise positioning in Japan and benefit customers around the globe, said Timothy Harris, Co-Founder and CEO at Swift Navigation. KDDI has always been at the forefront of bringing innovative technological solutions to its customers and Swift is pleased to add value to their businesses through the reliable accuracy delivered from Skylark.

We believe that Swift's high-precision positioning solution further empowers our business capabilities in mobility space and contributes to the expansion of business coverage into smart vehicles, said Hiromichi Matsuda, Executive Officer, Business Exploration & Development at KDDI CORPORATION. The accuracy afforded from precise positioning unlocks opportunities for a multitude of businesses and industries and adds value to our customers in Japan.

To learn more about how Swift and KDDI's solution can be easily integrated into your application, visit swiftnav.com/kddi.

ABOUT SWIFT NAVIGATION

Swift Navigation provides precise positioning solutions for automotive, autonomous vehicle, mobile and mass-market applications. What began as the GNSS industry's first low-cost, high-accuracy, real-time kinematic (RTK) receiver has evolved into a Swift Navigation ecosystem of positioning solutions for autonomous applications. From the continental GNSS precise positioning service delivered from the cloud by Skylark, the hardware-independent, integrated software solution that is the Starling positioning engine, to the centimeter-level accurate Piksi Multi and ruggedized Duro and Duro Inertial RTK receivers, Swift Navigation is enabling a future of autonomous vehicles to navigate and understand the world. Learn more online at swiftnav.com, follow Swift on Twitter @Swiftnav

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Press Contact:

Swift Navigation

press@swiftnav.com

Document NAIRAQ0020210720eh7k0005o



Swift Navigation and KDDI Announce **Partnership** to Build on the Global Expansion of Precise Positioning

355 words

19 July 2021

Kuwait News Agency (Kuna)

KUWNA

English

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Document KUWNA00020210719eh7j000m9

Swift Navigation and KDDI Announce **Partnership** to Build on the Global Expansion of Precise Positioning

773 words

19 July 2021

11:05

GlobeNewswire

PZON

English

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Swift Navigation and KDDI Announce **Partnership** to Build on the Global Expansion of Precise Positioning

SAN FRANCISCO, July 19, 2021 (GLOBE NEWSWIRE) -- Swift Navigation, a San Francisco-based tech firm redefining GNSS (Global Navigation Satellite System) and precise positioning technology for autonomous vehicles, automotive, mobile and mass-market applications, today announced a **partnership** with Tokyo-based KDDI Corporation. KDDI is an international telecommunications company on the forefront of using technology innovations to provide a high-quality and high-reliability network that meets the communication needs of its global customers. This **partnership** will be key in bringing Swift's precise positioning technology to the Japan market and adds KDDI as a key partner in the global expansion of Skylark precise positioning service--currently available across the continental U.S. and Europe in **partnership** with Deutsche Telekom.

Traditionally, precision GNSS corrections were provided using real-time kinematics (RTK) techniques, requiring a high density of reference stations and with limited fault tolerance. By partnering with Swift, KDDI is able to utilize Swift's patented wide area corrections solution, a hybrid of precise point positioning (PPP) and RTK. The solution delivers wide area corrections with a low density of reference stations, fast convergence, centimeter-level accuracy, all from a highly-reliable service delivered seamlessly via the cloud.

Accuracy that previously could benefit a few pieces of equipment on a jobsite--or in a field--is now accessible to millions of users across continents. The accuracy of the Skylark precise positioning service enables lane-level positioning at fast convergence times to achieve required levels of safety, reliability, integrity and availability required by autonomous, mass-market and mobile applications. Skylark is GNSS hardware-agnostic, giving customers a choice in which GNSS sensor is used and enabling users across industries to benefit from higher accuracy by simply subscribing to Skylark. This ease of access and higher accuracy output has benefits across industries. Automotive manufacturers achieve lane-level accuracy in the sensor suite with high levels of integrity. Delivery companies improve operational efficiencies and cost savings with route optimization. Mobile app companies improve analytics using accurate data to create better maps and higher performing apps. Industrial applications automate equipment and improve efficiency with reliably accurate positioning.

"Swift Navigation is delighted to be partnering with KDDI to expand Skylark's precise positioning in Japan and benefit customers around the globe," said Timothy Harris, Co-Founder and CEO at Swift Navigation. "KDDI has always been at the forefront of bringing innovative technological solutions to its customers and Swift is pleased to add value to their businesses through the reliable accuracy delivered from Skylark."

"We believe that Swift's high-precision positioning solution further empowers our business capabilities in mobility space and contributes to the expansion of business coverage into smart vehicles," said Hiromichi Matsuda, Executive Officer, Business Exploration & Development at KDDI CORPORATION. "The accuracy afforded from precise positioning unlocks opportunities for a multitude of businesses and industries and adds value to our customers in Japan."

To learn more about how Swift and KDDI's solution can be easily integrated into your application, visit swiftnav.com/kddi.

ABOUT SWIFT NAVIGATION

Swift Navigation provides precise positioning solutions for automotive, autonomous vehicle, mobile and mass-market applications. What began as the GNSS industry's first low-cost, high-accuracy, real-time kinematic (RTK) receiver has evolved into a Swift Navigation ecosystem of positioning solutions for autonomous applications. From the continental GNSS precise positioning service delivered from the cloud by Skylark(TM), the hardware-independent, integrated software solution that is the Starling(R) positioning engine, to the centimeter-level accurate Piksi(R) Multi and ruggedized Duro(R) and Duro Inertial RTK

receivers, Swift Navigation is enabling a future of autonomous vehicles to navigate and understand the world. Learn more online at [swiftnav.com](https://www.swiftnav.com), follow Swift on Twitter @Swiftnav

ABOUT KDDI

KDDI is a telecommunication service provider in Japan, offering both mobile and fixed-line communications. With its well-established base of over 58 million customers, and through mobile services and shops offering its "au" brand, KDDI is expanding its services into the "Life Design" business, which includes e-commerce, fintech, nationwide electric power utility services, entertainment and education. With a 60-year history, KDDI is now focusing on creating smart infrastructure through IoT technologies and open innovation with partners and start-up companies in diverse industries. KDDI is accelerating the global growth of its telecommunications consumer business, with operations in Myanmar and Mongolia, and in the global ICT business with the "TELEHOUSE" brand.

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the centimeter-level accurate Piksi® Multi and ruggedized Duro® and Duro Inertial RTK receivers, Swift Navigation is enabling a future of autonomous vehicles to navigate and understand the world. Learn more online at [swiftnav.com](https://www.swiftnav.com), follow Swift on Twitter [@Swiftnav](https://twitter.com/Swiftnav)

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Computers - Cloud Computing; Findings on Cloud Computing Reported by Investigators at Muroran Institute for Technology (Virtual Network Recognition and Optimization In Sdn-enabled Cloud Environment)

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2021 JUL 13 (VerticalNews) -- By a News Reporter-Staff News Editor at Information Technology Newsweekly -- Research findings on Computers - Cloud Computing are discussed in a new report. According to news reporting originating from Hokkaido, Japan, by VerticalNews correspondents, research stated, "Cloud computing is a scalable and efficient technology for providing different services. For better reconfigurability and other purposes, users build virtual networks in cloud environments."

Funders for this research include Grants-in-Aid for Scientific Research (KAKENHI), KDDI Corporation, Muroran Institute of Technology.

Our news editors obtained a quote from the research from Muroran Institute for Technology, "Since some applications bring heavy pressure to cloud datacenter networks, it is necessary to recognize and optimize virtual networks with different applications. In some cloud environments, cloud providers are not allowed to monitor user private information in cloud instances. Therefore, in this paper, we present a virtual network recognition and optimization method to improve quality-of-service (QoS) of cloud services. We first introduce a community detection method to recognize virtual networks from the cloud datacenter network. Then, we design a scheduling strategy by combining SDN-based network management and instance placement to improve the service-level agreements (SLA) fulfillment."

According to the news editors, the research concluded: "Our experimental result shows that we can achieve a recognition accuracy as high as 80 percent to find out the virtual networks, and the scheduling strategy increases the number of SLA fulfilled virtual networks."

This research has been peer-reviewed.

For more information on this research see: Virtual Network Recognition and Optimization In Sdn-enabled Cloud Environment. IEEE Transactions on Cloud Computing, 2021;9(2):834-843. IEEE Transactions on Cloud Computing can be contacted at: Ieee-inst Electrical Electronics Engineers Inc, 445 Hoes Lane, Piscataway, NJ 08855-4141, USA.

The news editors report that additional information may be obtained by contacting Mianxiong Dong, Muroran Institute for Technology, Dept. of Information and Electrical Engineering, Muroran, Hokkaido 0508585, Japan. Additional authors for this research include He Li and Kaoru Ota.

Keywords for this news article include: Hokkaido, Japan, Asia, Cloud Computing, Computers, Muroran Institute for Technology.

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Mobile Industry Leaders Commit to Support 5G mmWave Globally

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Today a contingent of mobile communications companies announced their collective support for 5G mmWave technology globally – including key players from a growing number of regions including China, Europe, India, Japan, Korea, North America and South East Asia. The industry leaders aim to build on the existing momentum behind 5G mmWave, which allows them to address the significant increases in user data demand, and to expand the role of the mobile **ecosystem** in supporting economic development across many industries.

Major global mobile industry leaders advancing current 5G mmWave momentum include Airtel, AT&T, Casa Systems, China Unicom, Chunghwa Telecom, Deutsche Telekom, Electronics Telecommunications Research Institute (ETRI), Elisa, Ericsson, Fastweb, Fibocom, Gongjing Electronic, HMD Global, HONOR, Infomark Co., Ltd, Innowireless Co., Ltd., KDDI CORPORATION, Kyocera, MeiG, Motorola, NBN Co, Nokia, NTT DOCOMO, OPPO, Optus, Orange, Partron Co., Ltd., Quectel, Rakuten Mobile, Samsung Electronics, Singtel, SoftBank Corp, Sunsea AloT, TCL Communication, Telia Finland, Telstra, TIM, True Corporation Plc., UScellular, vivo, Vodafone, Xiaomi, and ZTE. These companies collaborate with Qualcomm Technologies, Inc. to drive the availability of 5G mmWave networks and devices.

“The global deployment of 5G mmWave is now inevitable. It is essential to achieve the full potential of 5G and those embracing 5G mmWave will find themselves with a competitive advantage,” said Cristiano Amon, president and chief executive officer-elect, Qualcomm Incorporated. “Support from companies across the ecosystem further demonstrates the global scale and maturity of 5G mmWave. We are proud of our industry leadership in the development, standardization and commercialization of 5G mmWave and honored to work with major mobile industry leaders to accelerate its deployment worldwide.”

5G mmWave uses abundant spectrum resources in frequencies above 24 GHz to complement sub-6 GHz rollouts and unleash the full potential of 5G. The technology allows leading operators to add massive capacity to cellular networks, enabling them to deliver multi-gigabit wireless speeds and low latency connectivity. These capabilities can help mobile operators to address everyday subscriber expectations for fast and responsive connectivity, and to expand 5G into new opportunities such as fixed wireless, enterprise (offices, campuses), and vertical applications and services, such as Ultra HD video security, and precise remote guidance and control in various scenarios like telemedicine, smart factories, and smart ports.

Several mobile industry leaders shared the following thoughts on 5G mmWave:

Airtel

“The mmWave band is emerging as important element of the 5G ecosystem as it offers tremendous potential for use cases such as Fixed Wireless Access that can bridge the urban-rural broadband divide in economies like India,” said Randeep Sekhon, chief technology officer, Bharti Airtel. “Airtel has been allotted mmWave spectrum in the 28 GHz band by the Government of India for the purpose of 5G trials and is already preparing relevant use cases. We are pleased to note the global momentum on mmWave deployments and look forward to working with Qualcomm Technologies and other stakeholders to accelerate the development these technologies.”

AT&T

“AT&T is using mmWave 5G to bring super-fast speeds and enhanced connectivity to high-traffic venues such as stadiums, arenas, airports, entertainment districts and campuses,” said Jeff Howard, vice president, mobile device portfolio, AT&T. “Currently, AT&T 5G+, our name for mmWave 5G, is available in parts of 38 cities and in more than 20 venues across the country. By the end of 2021, AT&T expects 5G+ will be available in parts of more than 40 cities and to more than 40 venues across the country.”

Casa Systems

"As a disruptive new technology, 5G mmWave delivers transformative service opportunities and user experiences beyond what is possible with traditional wireless networks," said Steve Collins, senior vice president, access devices, Casa Systems. "This technology has reached a stage of maturity where both performance and implementation are ready for mass adoption. Casa Systems is proud to collaborate with Qualcomm Technologies to offer truly disruptive broadband connectivity to service providers worldwide."

China Unicom

China Unicom is committed to advancing the maturity of 5G technology and fostering 5G ecosystem. During the MWC Shanghai 2021, China Unicom worked with dozens of leading companies such as Qualcomm Technologies, ZTE Corporation and GSMA to showcase extreme performance and rich applications enabled by 5G mmWave. In May 2021, China Unicom, the IMT-2020 (5G) Promotion Group, ZTE Corporation, Qualcomm Technologies, and TVU Networks achieved the world's first DSUUU frame structure-based 5G mmWave 8K video upstreaming demonstration through lab testing. This demonstration verified the superior uplink capability of 5G mmWave frequencies, which attaches great importance for meeting the needs of massive bandwidth in a plethora of future 5G vertical applications. As an important component of 5G, mmWave has advantages of high bandwidth, massive capacity and low latency to effectively satisfy the connectivity demands across verticals including ensuring network services in large competitions and events as well as addressing use cases in smart factory, smart campus and smart port. As the official partner of the Winter Olympic Games Beijing 2022, China Unicom is deploying 5G facilities in and around the Olympic venues and will provide high-quality 5G commercial services with a set of leading 5G technologies, to further promote the Olympic concept of higher, faster and stronger, and to present a wonderful and extraordinary high-tech Olympic event to the world.

Chunghwa Telecom

"In Dec. 2020, we have cooperated with Qualcomm Technologies to unveil the world's first smart factory powered by a private 5G mmWave network at ASE Group in Taiwan," said Dr. Rong-Shy Lin, senior executive vice president and chief technology officer, Chunghwa Telecom. "We expect that based on the high-bandwidth and low-latency characteristics of 5G mmWave, it will drive diversity and innovative applications in specific vertical fields."

Electronics Telecommunications Research Institute (ETRI)

"Qualcomm Technologies and ETRI have been in a strategic collaboration since the CDMA era and have been working together for the development of mmWave 5G small cell," said Seung Chan Bang, senior vice president, Electronics Telecommunications Research Institute (ETRI). "With 5G mmWave small cell technology, we can provide enhanced wireless experience and the true value of 5G to customers and industries."

Elisa

"Elisa, together with its technology partners, is constantly seeking technological solutions for our customers to tackle the ever-increasing demand for mobile broadband capacity from consumer and corporate customers, and to enable a broad range of new 5G services," said Jarno Niemelä, head of mobile access technology, Elisa. "The world needs pioneers in this area, and thanks to Finland's excellent policy around frequencies, the 26 GHz auction took place already in 2020. This has given Elisa the opportunity to start experimenting with millimetre-wave 26 GHz technology, which has made it possible to achieve a huge over-the-air downlink speed of 8 Gbps, as well as to prepare for the new era of 5G service provisioning."

Ericsson

"We see growing interest in Millimeter Wave as the technology that delivers multi-gigabit speeds and extreme capacity for mobile broadband users," said Per Narvinger, head of product area networks, Ericsson. "FWA users can also enjoy 'fiber-like' experience with Ericsson innovations that we piloted with Qualcomm Technologies and many service providers across the world. Millimeter Wave and 5G enable new creative use cases to explore, such as mixed reality, media, remote healthcare and smart manufacturing. As a leader in mmWave, Ericsson welcomes a wider ecosystem support for this important technology."

Fastweb

"Fastweb is a strong believer in 5G technology as an enabler of ultra broadband connectivity and we are proud to be among the first operators in Europe to deploy a commercial UltraFWA network based on a 5G mmWave spectrum," said Marco Arioli, chief technology officer Fastweb. "We started deploying our network a few months ago and our plan is to cover approximately 12 million households in the next 3 years. 5G mmWave in particular is proving to be disruptive in its capability to provide a valid alternative to FTTH and other UBB wireline technologies."

Fibocom

"5G mmWave momentum requires a significant amount of efforts from all parts of the ecosystem to roll out. As a global leading provider of wireless communication modules, Fibocom is delighted to work with Qualcomm Technologies to contribute to the popularization of 5G mmWave," said Lingpeng Ying, CEO of Fibocom. "Powered by the Snapdragon® X65 and X62 5G Modem-RF Systems, Fibocom's FM160W and FG160W modules steers through this new world of 5G mmWave with massive performance and capacity, delivering 5G high-speed wireless connectivity to meet everyday user expectation."

Gongjin Electronic

"We are very glad to have a comprehensive cooperation with Qualcomm Technologies in the 5G field," said Zumin Hu, chief executive officer, Gongjin Electronic. "Gongjin invested in and launched mmWave products earlier, and we are very glad that more and more operators around the world are investing in 5G mmWave construction. Gongjin is very optimistic about the future market prospect of mmWave communication. We will promote the development of 5G industry with Qualcomm Technologies in the future."

HMD Global

"5G mmWave is a key enabler that helps realizing the full potential of 5G – providing unprecedented speeds and addressing the increase in data demands across smartphones. It offers significant benefits to operators and will allow for the fastest multi-gigabit speeds and low latency connectivity," said Rosario Casillo, senior director advanced concepts and technologies, HMD Global. "HMD Global continues to invest in 5G mmWave as this transformative technology is set to bring the next-level performance and user experiences beyond what is possible today."

HONOR

"HONOR is delighted to collaborate with Qualcomm Technologies in research of 5G solutions. Delivering great mobile experiences has always been in HONOR's DNA, and we recognize the great potential of 5G mmWave technology in many important scenarios," said Samuel Deng, president of research and development management department, HONOR Device Co., Ltd. "We look forward to working closely with Qualcomm Technologies, operators and other partners to achieve a future filled with endless possibilities."

Infomark Co., Ltd

"Together with industry leaders, Qualcomm Technologies is advancing the global industry into the 5G mmWave era, providing unprecedented speeds and significant benefits across various industry," said Hyuk Choi, chief executive officer, Infomark Co., Ltd. "We have high expectations on the 5G era and we plan to lead this industry sector as it is now possible for us to develop an array of mobile devices supported by the cooperation with Qualcomm Technologies."

Innowireless Co., Ltd

"5G mmWave technology led by Qualcomm Technologies offers the most versatile capabilities and brings significant benefits to our small cell products," said Young-soo Kwak, chief executive officer, Innowireless Co., Ltd. "With small cells emerging as one of the most critical solutions in expanding in the 5G mmWave ecosystem, Qualcomm® 5G RAN Platforms will enable Innowireless in delivering high quality 5G coverage for both indoors and outdoors. We will do bring our best efforts to leverage the locally developed high-end quality 5G solution as a new growth engine."

KDDI CORPORATION

"We commercially launched mmWave service in 2020 and are seeing mmWave as an integral part to our 5G strategy," said Tatsuo Sato, vice president and managing officer, technology planning, KDDI CORPORATION. "We believe that mmWave unleashes the full potential of 5G for high throughput and capacity and look forward to continue to work with Qualcomm Technologies to further enhance our mmWave service on KDDI's 5G network to deliver innovative 5G experiences to our customers."

Kyocera

"Kyocera has a long history of delivering high-quality rugged mobile devices with Qualcomm Technologies' solutions enabling best in class wireless connectivity to improve mobile productivity for verticals such as public safety, construction, healthcare as well as active outdoor enthusiasts," said Vipul Dalal, divisional vice president, Kyocera International, Inc. "Our new DuraForce Ultra 5G UW ultra-rugged smartphone, with blazing fast 5G mmWave connectivity, provides highly reliable bandwidth with low latency, enhancing user experiences, for new ways to work, engage and play such as multi-access edge computing and augmented reality. mmWave will help deliver on the full promise of 5G now and in the future."

MeiG

"We are very happy to cooperate with Qualcomm Technologies on 5G technology. More than 150 carriers around the world have investment in mmWave technology. By 2035, mmWave technology will bring economic benefits of USD 565 billion to the world. With ultra-bandwidth, mmWave will create new market for FWA and local network," said Mr. Du Guobin (Benjamin), chief executive officer, MeiG Smart Technology Co., Ltd. "We are happy to provide a full range of 5G mmWave products, including industrial box, IDU and ODU. They can meet the requirements of mmWave across scenarios for carriers and customers, speed up the development of 5G industry and market, ensure that our customers enjoy MeiG Smart product advantages and give a support to 5G mmWave commercial use."

Motorola

"5G mmWave is at the heart of realizing the full potential of 5G - providing unprecedented speeds and addressing the increase in data demands across smartphones and other connected computing devices. It has significant benefits to consumers and will allow for the fastest multi-gigabit speeds and low latency connectivity," said Doug Michau, executive director of NA business development, Motorola. "Motorola continues to invest in 5G mmWave; it is a core part of our roadmap as 5G mmWave is a transformative technology that will deliver the next-level performance and user experiences beyond what is possible today."

NBN Co

"It's great to be part of a global technology community that is constantly pushing and searching for new ways to bring the benefits of connectivity to more homes and businesses around the world," said Ray Owen, chief technology officer, NBN Co. "We were delighted to have set our 7.3 km mmWave world record in January 2021, and we are very pleased to see other operators recently raising the bar to 11.5 km. This growing momentum will help network operators define the most cost-effective, and spectrum-efficient ways to integrate 5G into their evolving network architectures. We look forward to supporting its development as another important technology that will help meet the needs of regional and rural fixed wireless users."

Nokia

"mmWave spectrum is the fuel for the rocket backpack that makes 5G fly," said Jan van Tetering, senior vice president, head of Europe, Nokia. "With 5G mmWave, we hold the key to unlocking a new category of user experience in dense urban areas as well as new, value-creating use cases across various industries."

NTT DOCOMO

"As NTT DOCOMO, we launched 5G services with Sub-6 GHz in March 2020 and started mmWave from September 2020 by utilizing allocated 5G frequencies, both boosting downlink and uplink speeds. Especially its 5G uplink speeds of mmWave will become the key to enhancing enterprise, eSports, and stadium solutions where handling of live uplink data is critical," said Naoki Tani, executive vice president, chief technology officer, NTT DOCOMO, INC. "NTT DOCOMO will continue aggressive efforts to expand 5G coverage area our area coverage with both Sub-6 GHz and mmWave spectrum bands, further increase speed and capacity, and enhance our network with the introduction of new technologies such as MEC, so that we can provide high-speed, high-capacity, low-latency services to even more customers."

OPPO

"We are excited to be growing our collaboration with Qualcomm Technologies around R&D and testing of 5G mmWave devices to help realize the full potential of 5G," said Tony Chen, Founder and CEO, OPPO. "As an early advocate and pioneer of 5G deployment, OPPO will launch its first commercial device supporting mmWave 5G in the near future, further empowering new user experience in the 5G era."

Partron Co., Ltd

"With the global 5G rollouts in place, Qualcomm Technologies' 5G technologies is the key enabler for us in developing products that unlocks the true potential of 5G from sub-6GHz to mmWave," said Jong-Koo Kim, chief executive officer, Partron Co., Ltd. "Partron is developing 5G embedded modules using the Snapdragon 5G modem-RF system to provide flexibility across virtually all deployment types. I'm quite sure that Partron could contribute 5G service expansion including mmWave by adopting Qualcomm Technologies' most advanced 5G technologies."

Quectel

"Quectel has been closely collaborating with Qualcomm Technologies and other ecosystem partners to drive 5G IoT innovation. We are excited that our 5G mmWave modules, including the commercial RM510Q-GL module and the next-generation RG530F and RM530N modules powered by the Snapdragon® X65 and X62

5G Modem-RF Systems will help expand 5G technology into more applications," said Patrick Qian, chief executive officer, Quectel. "Offering enhanced features such as multi-gigabit data speeds and ultra-low latency connectivity, Quectel's mmWave modules have supported the commercial deployment of 5G in many vertical sectors including Fixed Wireless Access (FWA), 4K/8K live streaming, robotics, AR/VR gaming and many more."

Rakuten Mobile

"mmWave is an important part of our spectrum portfolio and we are seeing very positive performance on our deployment with low latency and high speeds of 1.77Gbps. Thanks to the cloud-native architecture of our network, this will continue to improve with software enhancements," said Tareq Amin, representative director, executive vice president and chief technology officer, Rakuten Mobile, Inc. "We are proud to collaborate with Qualcomm Technologies as we expand our mmWave deployment and look forward to providing our customers with an even greater 5G experience."

Samsung Electronics

"Over the years, Samsung and Qualcomm Technologies have been collaborating to innovate wireless technologies. In 2020, Samsung launched one of the first 5G mmWave indoor small cell - Link Cell - powered by Qualcomm® 5G RAN Platform for small cells, helping wireless operators expand their 5G network capabilities and seamlessly link outdoor and indoor 5G experiences," said Wonil Roh, senior vice president and head of product strategy, Networks Business at Samsung Electronics. "With our extensive endeavors in research and development to pioneer cutting edge technologies, Samsung will continue to support wireless operators and enterprises in expanding and advancing 5G services."

Singtel

"Enterprises and consumers will stand to benefit with mmWave adoption which is key to enabling innovative business solutions and enhancing everyday experiences," said Mark Chong, Group Chief Technology Officer, Singtel. "With mmWave's higher bandwidth, it has the potential to deliver applications like cloud gaming and augmented reality as well as enterprise solutions such as autonomous guided vehicles and smart manufacturing. We expect these new use cases to contribute to 5G's major business drivers and will be working with various companies to co-create 5G-powered solutions."

SoftBank Corp

"SoftBank Corp. launched 5G mmWave commercial services in March 2021 as a key component of 5G to offer high throughput and high capacity services even in dense traffic situations," said Keigo Sugano, senior vice president and head of the product division in the consumer business unit, SoftBank Corp. "We are going to add mmWave products to our lineup and are pleased to see the 5G mmW ecosystem is growing globally, as it is critical for us to further utilize the technology to offer the fastest mobile experience to our customers."

Sunsea AIoT

"Due to its high transmission quality, security and confidentiality, 5G mmWave can empower industries such as industrial manufacturing, connected-car, live broadcast, smart hospital, which can accelerate the digitization and connectivity of industry," said Tao Yang, chief executive officer, Sunsea AIoT. "Sunsea AIoT (SIMCom) has devoted itself in the 5G mmWave field for a long time, which has launched a series of 5G modules, including SIM8300G-M2 (powered by Snapdragon® X55 Modem-RF System), SIM8360G (powered by the Snapdragon X62), and SIM8380G (powered by Snapdragon X65). As an important collaborator of Qualcomm Technologies, Sunsea AIoT will work with Qualcomm Technologies to drive the global 5G development."

TCL Communication

"The 5G mmWave deployment opens new and critical opportunities for unleashing the full potential of 5G network. We are excited to join the revolution with our carrier and technical partners in providing more seamless connection experience with even faster data speeds and ultra-low latency empowered by 5G mmWave," said Aaron Zhang, chief executive officer, TCL Communication. "The launch of TCL 10 5G UW handset last year was our first move in 5G mmWave and it also demonstrates our commitment to 5G For All. We are planning to bring the experience to more mobile categories in the future."

Telia Finland

"Finland has been in the European forefront in rolling out 5G, as over half of the population has the opportunity to use the latest mobile technology," said Janne Koistinen, 5G program director, Telia Finland. "However, to fulfill the full promise of 5G, we together need to accelerate the adoption of mmWave technology in Europe. Telia Finland is proud to join the efforts to bring this technology to life."

Telstra

"At Telstra, we believe that 5G is critical to Australia's future prosperity and we see mmWave as an important way to expand our 5G offering," said Channa Seneviratne, executive – technology development and solutions, Telstra. "Each year, the demand for mobile data on our network increases by around 40%. mmWave will not only help us cater for that growth into the future but also enable a range of new use cases and services that will benefit from the speed, latency and capacity that mmWave has to offer."

TIM

TIM is at the forefront in the use of millimetre-wave solutions. TIM has in fact connected the first Italian factory in 5G, thanks to the creation of a dedicated private network for Exor International, an industrial company in the North East. This infrastructure - which uses millimetre wave frequencies such as those in the 26Ghz range - makes it possible to optimise Smart Factory processes, exploiting the extremely low latency and top security and reliability that characterise the dedicated indoor coverages.

True Corporation Plc

"We at True are proud to have launched the first commercial 5G network in Southeast Asia that uses the 26 GHz mmWave as a cornerstone of our 5G strategy and leadership as it sets the stage for further innovations, including the development of the Industrial Internet-of-Things (IIOT)," said Manat Manavutiveth, President (Co), True Corporation Plc. "I strongly believe that True5G is ready to shape Thailand to become a sustainable intelligent nation."

UScellular

"At UScellular, we are committed to collaborating across the industry to drive innovation that helps bridge the digital divide and enhance the wireless experience for our customers," said Narothum Saxena, vice president of technology strategy and architecture, UScellular. "Our recent testing results highlight the extended range possibilities that 5G mmWave technology provides and reinforce the important role that wireless plays in keeping people connected across urban and rural communities."

Vivo

"As a longstanding collaborator of Qualcomm Technologies in innovation, vivo has so far launched more than 30 models of 5G smartphone powered by Snapdragon mobile platforms across the world since the commercialization of 5G," said Yujian Shi, Senior Vice President & CTO, vivo. "With vivo's further exploring in 5G technology and standard development, vivo and Qualcomm Technologies have deepened cooperation in mmWave technology to optimize our 5G smart devices and keep bringing more powerful and richer mobile connectivity experiences to consumers worldwide."

Xiaomi

"mmWave, an important component of 5G technology, has undoubtedly enormous prospects in applications. Xiaomi has been devoted to developing and testing mmWave technology and device. Even before international communications standard organization 3GPP set the 5G standards, Xiaomi formed a 5G R&D team and achieved mmWave IoT in October 2018, taking the lead in the industry," said Cheng Chang, vice president, Xiaomi. "By closely working with Qualcomm Technologies in advancing technologies, we expect to launch the mmWave devices based on the Snapdragon mobile platforms next year and offer our global users with increasingly smooth and superior network experiences."

ZTE

"The thriving digital economy has become a key driver of high-quality economic development in the world. As a 'road builder of digital economy', ZTE is committed to helping accelerate digital transformation across industries with leading information and communications technology (ICT)," said Fei Ni, CEO of ZTE Mobile Devices. "In the past year, ZTE has worked with collaborators such as Qualcomm Technologies in enabling massive mmWave commercial devices to connect to the networks of global major operator customers. Looking ahead, we will jointly drive the evolution of 5G mmWave technology to further expand into a rich variety of use cases across industries to unlock the value of 5G with high bandwidth, low latency and massive connectivity."

[Click here to view image](#)

Document CMPCQU0020210701eh6u00005

KDDI, Deutsche Telekom, MobileedgeX, Sturfee, and Mawari develop MEC PaaS PoC

Natalie Bannerman

436 words

29 June 2021

Capacity Magazine

CAPMAG

English

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The PaaS for XR applications is being developed as a common **platform** on multi-access edge computing (MEC) provided by each of the aforementioned telecoms operators.

Through this PoC, it is expected to accelerate development of a global XR application running on MEC and the PoC is due to launch June 2021 in line with the GSMA Telco Edge **Cloud** (TEC) initiative.

"We're excited to be working with Deutsche Telekom, MobileedgeX, Sturfee, and Mawari to make this functional proof of concept (PoC) a reality," said Kei Morita, member of the board, managing executive officer, personal business sector, KDDI Corporation.

"The PoC makes full use of MEC, which enhances ultra-low latency features of 5G, and is expected to realize a whole new platform distributing innovative XR services and experiences, created by KDDI's creative team: au Vision Studio, across the world. KDDI will keep leading to provide customers with advanced MEC toward the 5G SA era."

The project comes as MEC platforms, intended to support AR / VR, automatic driving, robotics, as well as other applications that leverage the low latency of 5G, require closer proximity to supporting (Application Programming Interface) APIs and (software development kit) SDKs in their backend code, to deliver the quality of experience and scale that is required.

However, for developers who want to release their applications globally, using MEC leads to longer lead times and higher operating costs, because MEC is delivered at the edge provided by each telecom operator, meaning you have to individually deploy, test, and operate middleware such as APIs.

"For a faster return on their development effort, the XR developer community require a fast and easy way to deploy their applications to users in markets worldwide," says Dominik Schnieders, head of edge computing / cloud XR at Deutsche Telekom.

"We are very excited to collaborate with KDDI and MobileedgeX to demonstrate a consistent cross-operator platform that will push XR forward and result in more immersive, exciting, and entertaining edge-enabled services for our customers."

As a result, through this PoC KDDI and Deutsche Telekom will collaborate with Mawari, MobileedgeX, and Sturfee to make a Visual Positioning Service (VPS) - provided by KDDI's development partner Sturfee, which is compatible with the MobileedgeX Edge-Cloud platform - and deploy it as a PaaS to KDDI and Deutsche Telekom's MEC network.

In addition, the SDK provided by PaaS will be embedded into the AR app on a smartphone, and a 3D virtual human application called "coh" will be distributed from KDDI and Deutsche Telekom MEC to the smartphone XR app.

Document CAPMAG0020210719eh6t00006

KDDI, Deutsche Telekom, MobileEdgeX, Sturfee, and Mawari Announce the First Global PaaS (Platform as a Service) Collaboration to Accelerate XR Application Development on a MEC (Multi-access Edge Computing) Platform

1,420 words

29 June 2021

Kabulpress.org

KPRESS

English

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KDDI Corporation (headquartered in Chiyoda-ku, Tokyo, Japan; Makoto Takahashi, President and CEO; hereinafter KDDI), Deutsche Telekom AG (headquartered in North Rhine-Westphalia, Germany; Timotheus Httges, CEO; hereinafter Deutsche Telekom), MobileEdgeX, Inc. (headquartered in California, U.S.A.; Jason Hoffman, CEO; hereinafter referred to as MobileEdgeX), Sturfee, Inc. (headquartered in California, U.S.A.; Anil Cheriyyadat, CEO; hereinafter referred to as Sturfee), and Mawari, Inc. (headquartered in Shibuya-ku, Tokyo, Japan; Luis Oscar Ramirez Solorzano, CEO; hereinafter referred to as "Mawari") have jointly developed a proof of concept (PoC) in order to realize the world's first (Note.1) PaaS (Platform as a Service) for XR applications development provided as a common platform on MEC (Multi-access Edge Computing) provided by each telecom operator. It is expected to accelerate development of a global XR application running on MEC by this PoC.

This PoC will be launched in June 2021 in alignment with the GSMA Telco Edge Cloud (TEC) initiative (Note.2 & Note.3). The Challenge: Deploying Low Latency Applications on Multiple Operator MECs

MEC platforms are intended to support AR / VR, automatic driving, robotics, and other applications that take advantage of the low latency of 5G. Next generation interactive media apps (XR) require closer proximity to supporting APIs and SDKs in their backend code, to deliver the quality of experience and scale that is required. This is because media is generated from all participants locations and cameras in real time and any lack of synchronization could produce a poor user experience. There is a growing need among application developers for consistent APIs and cloud services to be deployed within the edge networks to support these next generation applications in an easy and consistent way.

However, for developers who want to release their applications globally, using MEC leads to longer lead times and higher operating costs. This is because MEC is provided within the edge networks provided by each telecom operator, it is necessary to individually deploy, test, and operate middleware such as APIs for each MEC provided by telecom operators in each country.

For the telecom operator, the challenge is speed, scale, and collaboration. Today, telecom operators cannot benefit from each other's complementary market development, especially in the space of discovering new in-network services that will be required to power the next generation of apps and solutions.

The Solution: PoC Overview

In this PoC, KDDI and Deutsche Telekom will collaborate with Mawari, MobileEdgeX, and Sturfee to solve the challenges of using MEC to efficiently deliver applications on a global scale.

KDDI and Deutsche Telekom will collaborate with Mawari, MobileEdgeX, and Sturfee to make a Visual Positioning Service (VPS) -- provided by KDDI's development partner Sturfee, which is compatible with the MobileEdgeX Edge-Cloud platform -- and deploy it as a PaaS to KDDI and Deutsche Telekom's MEC network.

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"coh" is created and provided by KDDI's creative team "au Vision Studio."

KDDI and Deutsche Telekom will demonstrate that this PoC can be used to efficiently develop low-latency XR applications that are running on smartphones, smart glasses, and other XR devices.

A photo accompanying this announcement is available at

<https://www.globenewswire.com/NewsRoom/AttachmentNg/5ead83ff-f5c9-4281-b899-15ea5b209722>

Detail: Key Steps in the PoC Process

For the global deployment of XR applications using MECs, KDDI and Deutsche Telekom will build a platform that can efficiently deploy XR applications to their MEC by leveraging the MobileEdgeX Edge-Cloud 3.0 platform that integrates and manages MECs of telecom operators in each country and enables applications to be easily deployed to each MEC.

Using the platform built by KDDI and Deutsche Telekom, VPS, a spatial recognition technology of Sturfee and XR content streaming technology provided by Mawari will be deployed to the MEC of both companies.

Will also develop an API/SDK as PaaS to enable collaboration between Sturfees VPS and Mawaris XR streaming technology.

Will demonstrate that KDDI's Virtual human coh, planned and developed by KDDI's creative team "au VISION STUDIO" (Partner: Aww Inc.), is streamed by leveraging Sturfees VPS and Mawaris XR streaming technology from the MobileEdgeX powered edge cloud in both Japan and Germany.

To make it easier for application developers and content creators to deploy XR content globally, the API/SDK developed in this PoC will be made available on the "au VISION STUDIO" project introduction website in October 2021.

The five companies are currently participating in the TEC Trial promoted by GSMA and aim to realize PaaS through this PoC to solve customer issues and create global business opportunities.

A photo accompanying this announcement is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/c979f1e3-3994-40a5-aef8-f1454f54023a>

For the future:

KDDI will continue to develop use cases that utilize MEC in preparation for the commercial deployment of 5G SA, as well as promote the realization of a platform that enables the provision of MEC-based applications of the same quality anywhere in the world via any telecom operator's network.

The role of each company:

KDDI:

Overall promotion of this PoC, provision of MEC and implementation of this PoC

Deutsche Telekom:

Provision of MEC and implementation of this PoC

MobileEdgeX:

Providing 5G application distribution independent of underlying operator cloud choices, both public and private, and with common interfaces across telecom operators

Sturfee:

Providing VPS technology as part of MEC service for real-time spatial understanding of surroundings utilizing MEC and deployment of VPS to KDDIs and Deutsche Telekom's MEC using MobileEdgeX technology

Mawari:

Deployment of XR Streaming Solution for KDDI's "Virtual Human" to KDDIs and Deutsche Telekom's MEC using MobileEdgeX technology, and integrated with Sturfees VPS on MobileEdgeX

(Reference? About au VISION STUDIO? <https://au5g.jp/visionstudio/>)

This team is responsible for planning, creating, and implementing advanced experiences in society based on the knowledge of XR measures that KDDI has been working on, in addition to cutting-edge technologies and ideas such as 5G and XR, as a single team.

KDDI's past activities

KDDI is promoting the commercial deployment of MEC and the implementation of various use cases, including the commercial launch of AWS Wavelength in December, 2020 and the non-commercial demonstration experiment of HYPER LANDSCAPE at Miraikan- The National Museum of Emerging Science and Innovation in March, 2021.

(Note.1) This is the world's first PoC for the realization of PaaS for AR applications using MEC provided by telecom operators in each country. (As of June 29th, 2021, according to KDDI Corporation, Deutsche Telekom AG, MobileEdgeX Inc., Mawari, Inc.)

(Note.2) The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with almost 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organizations in adjacent industry sectors.

(Note.3) TEC is an abbreviation for Telco Edge Cloud, a concept promoted by the GSMA for the realization of an interoperable platform for MECs provided by telecom operators. The TEC trial is a mechanism to promote the trial with the support of GSMA toward the realization of the TEC concept.

KDDI Quote

Were excited to be working with Deutsche Telekom, MobileEdgeX, Sturfee, and Mawari to make this functional proof of concept (PoC) a reality, says Kei Morita, Member of the Board, Managing Executive Officer, Personal Business Sector, KDDI Corporation. "The PoC makes full use of MEC, which enhances ultra-low latency features of 5G, and is expected to realize a whole new platform distributing innovative XR services and experiences, created by KDDI's creative team: au Vision Studio, across the world. KDDI will keep leading to provide customers with advanced MEC toward the 5G SA era.

Deutsche Telekom Quote

For a faster return on their development effort, the XR developer community require a fast and easy way to deploy their applications to users in markets worldwide, says Dominik Schnieders, Head of Edge Computing / Cloud XR at Deutsche Telekom. We are very excited to collaborate with KDDI and MobileEdgeX to demonstrate a consistent cross-operator platform that will push XR forward and result in more immersive, exciting, and entertaining edge-enabled services for our customers.

Document KPRESS0020210629eh6t0002u

KDDI, Deutsche Telekom, MobileEdgeX, Sturfee, and Mawari Announce the First Global PaaS (Platform as a Service) Collaboration to Accelerate XR Application Development on a MEC (Multi-access Edge Computing) Platform

2,121 words

29 June 2021

07:00

GlobeNewswire

PZON

English

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KDDI, Deutsche Telekom, MobileEdgeX, Sturfee, and Mawari Announce the First Global PaaS (Platform as a Service) Collaboration to Accelerate XR Application Development on a MEC (Multi-access Edge Computing) Platform

Creation of business opportunities through global distribution of content from KDDI's au VISION STUDIO

BARCELONA, Spain, June 29, 2021 (GLOBE NEWSWIRE) -- MOBILE WORLD CONGRESS -- KDDI Corporation (headquartered in Chiyoda-ku, Tokyo, Japan; Makoto Takahashi, President and CEO; hereinafter "KDDI"), Deutsche Telekom AG (headquartered in North Rhine-Westphalia, Germany; Timotheus Höttges, CEO; hereinafter "Deutsche Telekom"), MobileEdgeX, Inc. (headquartered in California, U.S.A.; Jason Hoffman, CEO; hereinafter referred to as "MobileEdgeX"), Sturfee, Inc. (headquartered in California, U.S.A.; Anil Cheriyaad, CEO; hereinafter referred to as "Sturfee"), and Mawari, Inc. (headquartered in Shibuya-ku, Tokyo, Japan; Luis Oscar Ramirez Solorzano, CEO; hereinafter referred to as "Mawari") have jointly developed a proof of concept (PoC) in order to realize the world's first (Note.1) PaaS (Platform as a Service) for XR applications development provided as a common platform on MEC (Multi-access Edge Computing) provided by each telecom operator. It is expected to accelerate development of a global XR application running on MEC by this PoC. This PoC will be launched in June 2021 in alignment with the GSMA Telco Edge Cloud (TEC) initiative (Note.2 & Note.3).

The Challenge: Deploying Low Latency Applications on Multiple Operator MECs

MEC platforms are intended to support AR / VR, automatic driving, robotics, and other applications that take advantage of the low latency of 5G. Next generation interactive media apps (XR) require closer proximity to supporting APIs and SDKs in their backend code, to deliver the quality of experience and scale that is required. This is because media is generated from all participants' locations and cameras in real time and any lack of synchronization could produce a poor user experience. There is a growing need among application developers for consistent APIs and cloud services to be deployed within the edge networks to support these next generation applications in an easy and consistent way.

However, for developers who want to release their applications globally, using MEC leads to longer lead times and higher operating costs. This is because MEC is provided within the edge networks provided by each telecom operator, it is necessary to individually deploy, test, and operate middleware such as APIs for each MEC provided by telecom operators in each country.

For the telecom operator, the challenge is speed, scale, and collaboration. Today, telecom operators cannot benefit from each other's complementary market development, especially in the space of discovering new "in-network" services that will be required to power the next generation of apps and solutions.

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In this PoC, KDDI and Deutsche Telekom will collaborate with Mawari, MobileEdgeX, and Sturfee to solve the challenges of using MEC to efficiently deliver applications on a global scale.

KDDI and Deutsche Telekom will collaborate with Mawari, MobileEdgeX, and Sturfee to make a Visual Positioning Service (VPS) -- provided by KDDI's development partner Sturfee, which is compatible with the MobileEdgeX Edge-Cloud platform -- and deploy it as a PaaS to KDDI and Deutsche Telekom's MEC network.

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"coh" is created and provided by KDDI's creative team "au Vision Studio".

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3. Will also develop an API/SDK as PaaS to enable collaboration between Sturfee's VPS and Mawari's XR streaming technology.
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5. To make it easier for application developers and content creators to deploy XR content globally, the API/SDK developed in this PoC will be made available on the "au VISION STUDIO" project introduction website in October 2021.

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Deutsche Telekom Quote

"For a faster return on their development effort, the XR developer community require a fast and easy way to deploy their applications to users in markets worldwide," says Dominik Schnieders, Head of Edge Computing / Cloud XR at Deutsche Telekom. "We are very excited to collaborate with KDDI and MobileEdgeX to demonstrate a consistent cross-operator platform that will push XR forward and result in more immersive, exciting, and entertaining edge-enabled services for our customers."

About KDDI Corporation

(MORE TO FOLLOW)

KDDI, Deutsche Telekom, MobileEdgeX, Sturfee, and -2-

To individual customers, we provide smartphone, mobile phone, and other mobile communication services as well as fixed-line services including "au HIKARI." Furthermore, we are also providing MVNO services within group companies such as UQ Communications in addition to mobile services under the au brand. Going forward, we will further expand and integrate telecommunications services with life design services such as commerce, finance, energy, entertainment, and education to provide new forms of experience value for the enjoyment and convenience of our customers. In order to do so, our goal is to understand customers' needs by analyzing various types of data, offering appealing proposals, and becoming an important part of our customers' lives.

<https://www.kddi.com/english/corporate/kddi/our-business/personal/>.

About Deutsche Telekom AG

Deutsche Telekom is one of the world's leading integrated telecommunications companies, with some 235.8 million mobile customers, 27.3 million fixed-network lines, and 21.3 million broadband lines. We provide fixed-network/broadband, mobile communications, Internet, and IPTV products and services for consumers, and information and communication technology (ICT) solutions for business and corporate customers.

Deutsche Telekom is present in more than 50 countries. With a staff of some 229,170 employees throughout the world, we generated revenue of 80.5 billion Euros in the 2019 financial year, about 66 percent of it outside Germany. (All figures taken from the 2019 Annual Report).

About Mawari Inc.

Mawari, Inc. is a pioneer in cloud rendering and streaming technology for interactive AR experiences. Mawari provides an AR-focused streaming SDK that renders 3D content in the cloud and delivers it efficiently to devices. Core to the AR Streaming SDK is Mawari's unique, patent-pending compression technology that minimizes the weight of 3D content and enables real-time rendering and streaming to smartphones and AR glasses. Mawari's mission is to accelerate AR's widespread adoption and has been working relentlessly to solve real-world challenges to meet the demands of visionary AR/XR partners including Sapporo Breweries Ltd., Adways Co., Ltd, AFK Australia and KDDI Corporation. For more information, please visit <https://mawari.co.jp> or contact konnichiwa@mawari.co.jp.

About MobiledgeX Inc.

MobiledgeX is working with global mobile operators to deliver full control over multi-cloud edge deployments. The company's MobiledgeX Edge-Cloud platform provides a common interface for managing application workloads anywhere, abstracted from underlying infrastructure, to maintain control over data, privacy and security. It also provides device native SDK and matching engines for operator and third-party application developers to maximize performance and efficiency for cloud-native applications at the edge. MobiledgeX Edge-Cloud is proven via trials, PoC and deployments that span more than 20 global operators and a range of next-gen app developers. MobiledgeX is an edge computing company founded by Deutsche Telekom AG and headquartered in San Jose, California. For further information please see <https://mobiledgex.com> or contact press@mobiledgex.com.

About Sturfee Inc.

Sturfee Inc. is a technology company developing breakthrough solutions in Visual Positioning Service (VPS) enabling smartphones, wearable, and autonomous machines recognize 3D surroundings and operate intelligently using AI and computer vision. Our mission is to create a highly scalable 1:1 machine readable representation of the world from the skies and ground. We offer 5G AI infrastructure as service providing spatial intelligence to any camera device simply with a few images taken from the ground. In other words, we allow machines to "see" the world through cameras similar to how humans do. Once our cities become VPS-enabled, the possibilities are endless. Augmented Reality (AR) is the first use case we enable.

Contact:

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BLB Communications for MobiledgeX
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(END)

Document PZON000020210629eh6t0000i



Momentum for 5G mmWave ecosystem

231 words

28 June 2021

Optical Networks Daily

OBSERV

English

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At Mobile World Congress, a contingent of mobile communications operators and vendors announced their collective support for 5G mmWave technology globally. 5G mmWave uses abundant spectrum resources in frequencies above 24 GHz to complement sub-6 GHz rollouts.

Major global mobile industry leaders advancing current 5G mmWave momentum include Airtel, AT&T, Casa Systems, China Unicom, Chunghwa Telecom, Deutsche Telekom, Electronics Telecommunications Research Institute (ETRI), Elisa, Ericsson, Fastweb, Fibocom, Gongjing Electronic, HMD Global, HONOR, Infomark Co., Ltd, Innowerless Co., Ltd., KDDI CORPORATION, Kyocera, MeiG, Motorola, NBN Co, Nokia, NTT DOCOMO, OPPO, Optus, Orange, Partron Co., Ltd., Quectel, Rakuten Mobile, Samsung Electronics, Singtel, SoftBank Corp, Sunsea AIoT, TCL Communication, Telia Finland, Telstra, TIM, True Corporation Plc., UScellular, vivo, Vodafone, Xiaomi, and ZTE.

"The global deployment of 5G mmWave is now inevitable. It is essential to achieve the full potential of 5G and those embracing 5G mmWave will find themselves with a competitive advantage," said Cristiano Amon, president and chief executive officer-elect, Qualcomm Incorporated. "Support from companies across the ecosystem further demonstrates the global scale and maturity of 5G mmWave. We are proud of our industry leadership in the development, standardization and commercialization of 5G mmWave and honored to work with major mobile industry leaders to accelerate its deployment worldwide."

<https://www.qualcomm.com/news/releases/2021/06/28/global-mobile-industry-leaders-commit-support-5g-mmwave>

Document OBSERV0020210629eh6s00003

Technology - Information Technology; New Information Technology Study Findings Have Been Reported by Investigators at KDDI Corporation (Icn Performance Enhancing Proxies Intended To Mitigate Performance Degradation In Global Content Delivery)

341 words

22 June 2021

Information Technology Newsweekly

INTEWK

488

English

© Copyright 2021 Information Technology Newsweekly via VerticalNews.com

2021 JUN 22 (VerticalNews) -- By a News Reporter-Staff News Editor at Information Technology Newsweekly -- Data detailed on Technology - Information Technology have been presented. According to news reporting originating from Fujimino, Japan, by VerticalNews correspondents, research stated, "A global content delivery plays an important role in the current Internet. Information-Centric Networking (ICN) is a future internet architecture which attempts to redesign the Internet with a focus on the content delivery."

Our news editors obtained a quote from the research from KDDI Corporation, "However, it has the potential performance degradation in the global content delivery. In this paper, we propose an ICN performance enhancing proxy (ICN-PEP) to mitigate this performance degradation. The key idea is to prefetch Data packets and to serve them to the consumer with the shorter round trip time. By utilizing ICN features, it can be developed as an offline and state-less proxy which has an advantage of scalability."

According to the news editors, the research concluded: "We evaluate the performance of ICN-PEP in both simulation and experiment on global testbed and show that ICN-PEP improves the performance of global content delivery."

This research has been peer-reviewed.

For more information on this research see: Icn Performance Enhancing Proxies Intended To Mitigate Performance Degradation In Global Content Delivery. IEICE Transactions on Information and Systems, 2021;E104D(5):637-646. IEICE Transactions on Information and Systems can be contacted at: ieice-inst Electronics Information Communications Eng, Kikai-Shinko-Kaikan Bldg, 3-5-8, Shiba-Koen, Minato-Ku, Tokyo, 105-0011, Japan.

The news editors report that additional information may be obtained by contacting Kazuaki Ueda, KDDI Corporation, Future Commun Syst Lab, Fujimino 3568502, Japan.

Keywords for this news article include: Fujimino, Japan, Asia, Information Technology, Technology, Business, Business, KDDI Corporation.

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Document INTEWK0020210622eh6m00080

Engineering - Traffic Engineering; Investigators from KDDI Corporation Release New Data on Traffic Engineering (Networkapi: an In-band Signalling Application-aware Traffic Engineering Using Srv6 and Ip Anycast)

409 words

21 June 2021

Journal of Engineering

JOENG

1078

English

© Copyright 2021 Journal of Engineering via VerticalNews.com

2021 JUN 21 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- Data detailed on Engineering - Traffic Engineering have been presented. According to news reporting out of Fujimino, Japan, by VerticalNews editors, research stated, "Application-aware Traffic Engineering (TE) plays a crucial role in ensuring quality of services (QoS) for recently emerging applications such as AR, VR, **cloud gaming**, and connected vehicles. While a deterministic application-aware TE is required for these mission-critical applications, a negotiation procedure between applications and network operators needs to undergo major simplification to fulfill the scalability of the application based on emerging microservices and container-based architecture."

Our news journalists obtained a quote from the research from KDDI Corporation, "In this paper, we propose a NetworkAPI framework which allows an application to indicate a desired TE behavior inside IP packets by leveraging Segment Routing over IPv6 (SRv6). In the NetworkAPI framework, the TE behavior provided by the network operator is expressed as an SRv6 Segment Identifier (SID) in the form of a 128-bit IPv6 address. Because the IPv6 address of an SRv6 SID is distributed using IP anycast, the application can utilize the unchanged SRv6 SID regardless of the application's location, as if the application controls an API on the transport network. We implement a prototype of the NetworkAPI framework on a Linux kernel."

According to the news editors, the research concluded: "On the prototype implementation, a basic packet forwarding performance is evaluated to demonstrate the feasibility of our framework."

This research has been peer-reviewed.

For more information on this research see: Networkapi: an In-band Signalling Application-aware Traffic Engineering Using Srv6 and Ip Anycast. IEICE Transactions on Information and Systems, 2021;E104D(5):617-627. IEICE Transactions on Information and Systems can be contacted at: ieice-inst Electronics Information Communications Eng, Kikai-Shinko-Kaikan Bldg, 3-5-8, Shiba-Koen, Minato-Ku, Tokyo, 105-0011, Japan.

Our news journalists report that additional information may be obtained by contacting Takuya Miyasaka, KDDI Corporation, Fujimino 3568502, Japan. Additional authors for this research include Yuichiro Hei and Takeshi Kitahara.

Keywords for this news article include: Fujimino, Japan, Asia, Business, Business, Engineering, Traffic Engineering, KDDI Corporation.

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Document JOENG00020210621eh6l000p2



ClassNK Consulting Service Co., Ltd. (NKCS) adds new course for cybersecurity training service

172 words

3 June 2021

Yemen News Agency (SABA)

YEMNA

English

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ClassNK Consulting Service Co., Ltd. (NKCS) has added a new course named Maritime Cyber Security Technical Course (Attack Method) for Responsible Officers in Land for its e-learning cybersecurity training service.

This service has been adopted by a number of ship management companies and manning companies. It has been well received because it is easy to learn anywhere with an online environment, and it covers the requirements for proficiency training in the ISM Code Chapter 6. The new course describes the actual incidents occurred in the maritime industry, attack methods, and countermeasures. This service is provided in cooperation with KDDI Corporation (KDDI) and KDDI Digital Security (KDS).

This service can be used worldwide, enabling uniform and up-to-date cybersecurity education for multi-national ship crews and ICT personnel. As the digitalization of ships progresses, appropriate and continuous training of human resources will be the key to preventing cyber incidents. The service contents will be updated and expanded constantly.

Document YEMNA00020210603eh630005I



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166 words

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Document YEMNA00020210603eh6300002

Japan's KDDI invests in smart city **platform** startup in Indonesia

252 words

2 June 2021

NNA - English Edition

DAINEN

English

Copyright 2021. NNA Japan Co., Ltd.

JAKARTA, NNA - Japanese telecom giant KDDI Corp. has invested in smart city **platform** provider PT. Qlue Performa Indonesia, aiming to help promote digital transformation in Southeast Asia, beginning from Indonesia.

KDDI did not disclose the amount of the **investment**. The startup, established in 2016, offers a smart city **platform** using such technologies as internet of things and artificial intelligence to detect, analyze and solve problems in urban infrastructures in Indonesia, KDDI said in a news release Tuesday.

Qlue has helped raise city performances through cooperation with a number of authorities and companies in Jakarta and elsewhere in Indonesia where urban infrastructures still need to be improved, according to the news release.

KDDI aims to use the tie-up to promote digital transformation in Southeast Asia, taking advantage of Qlue's smart city platform solutions and KDDI's business bases in the region and its general information technology solutions, it said.

The investment was made through KDDI Open Innovation Fund No. 3, a body launched in April 2018 by KDDI and fund operator Global Brain Corp. to invest in startups in and outside Japan.

The fund manages 20 billion yen (\$182 million) and is planned to be run through March 2028. It has invested in 92 companies as of May 26, according to KDDI.

In 2019 it invested in Digital Alpha Group Pte. Ltd., a Singapore-based company offering small loans in Indonesia on an online peer-to-peer lending platform. (NNA/Kyodo)

Document DAINEN0020210602eh6200001

ClassNK Consulting Service Co., Ltd. adds new course for cybersecurity training service

192 words

2 June 2021

PortNews

PORTENG

English

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Document PORTENG020210602eh620002w

ClassNK Consulting Service Adds Technical Course on Cybersecurity

167 words

2 June 2021

Yedioth Ahronoth

YEDNO

English

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Document YEDNO00020210602eh620002t

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Kyodo

255 words

2 June 2021

06:03

Kyodo News

KYODO

English

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==Kyodo

Document KYODO00020210602eh62001b9

***KDDI Corp Sees FY Net Y655.00B**

198 words

14 May 2021

07:15

Dow Jones Institutional News

DJDN

English

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14 May 2021 02:15 ET KDDI Corp FY Net Y651.50B Vs Net Y639.77B

KDDI Corp. (9433.TO)

Tokyo

Year Ended March 31

GROUP	2021	2020
Revenue	Y5.31 tln	Y5.24 tln
Operating Profit	Y1.04 tln	Y1.03 tln
Pretax Profit	Y1.04 tln	Y1.02 tln
Net Profit	Y651.50 bln	Y639.77 bln
Per share		
Earnings	Y284.16	Y275.69
Diluted Earnings	Y283.91	Y275.49

Results are based on IFRS accounting standards.

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14 May 2021 02:15 ET KDDI Corp Sees FY Net Y655.00B

KDDI Corp. also released the following forecasts:

GROUP	Year Ending Mar 2022
Revenue	Y5.35 tln
Operating Profit	Y1.05 tln
Pretax Profit	N/A
Net Profit	Y655.00 bln
Per share	
Earnings	Y292.68

Results are based on IFRS accounting standards.

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(END) Dow Jones Newswires

May 14, 2021 02:15 ET (06:15 GMT)

Document DJDN000020210514eh5e000rj

Sumitomo forecasts no profit from Myanmar telecom business in 2021/22

157 words

7 May 2021

06:07

Reuters News

LBA

English

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TOKYO, May 7 (Reuters) - Japanese trading house Sumitomo Corp is assuming under its earnings forecast for the year to March 2022 that no profits will be made from its telecommunications business in Myanmar because of political instability, an executive said on Friday.

Japan's KDDI Corp and Sumitomo, in **partnership** with Myanma Posts and Telecommunications (MPT), are operating a telecommunications business in Myanmar.

"We are continuing our businesses in Myanmar," Sumitomo Chief Financial Officer Masaru Shiomi told a news conference, adding that there is no plan to change their operations there.

Since the military seized power in a Feb. 1 coup and ousted an elected government led by Nobel laureate Aung San Suu Kyi, Myanmar has had daily protests and a surge of violence as security forces have killed hundreds of civilians.

(Reporting by Yuka Obayashi; Editing by Christian Schmollinger)

Released: 2021-5-7T06:07:40.000Z

Document LBA0000020210507eh5700qba

Cato Networks; KDDI Partners with Cato Networks to Deliver Cloud-Native SASE Services Worldwide

332 words

26 April 2021

Journal of Engineering

JOENG

1138

English

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2021 APR 26 (VerticalNews) -- By a News Reporter-Staff News Editor at Journal of Engineering -- Cato Networks, the provider of the world's first SASE platform, announced a partnership with KDDI Corp to deliver Cato SASE services across North America, Europe, and the Asia Pacific. The agreement demonstrates how Communication Service Providers (CSPs) like KDDI can leverage cloud-delivered SASE to quickly meet enterprise requirements for pervasive security and optimized access from the branch, the road, and the office to any application.

"We look forward to partnering with KDDI and helping IT leaders everywhere benefit from the power of SASE," said Shlomo Kramer, CEO and co-founder of Cato Networks. "With the Cato Cloud SASE platform, CSPs can provide their customers secure access to corporate resources worldwide without compromising on performance, visibility, and control."

"KDDI is very happy to have this partnership with Cato and excited to be able to provide such secure network features to our enterprise customers," said Toru Maruta, Executive Officer and Head of Product Management in the solution business sector of KDDI.

KDDI Leverages Cato SASE Platform to Address Digital Requirements

With enterprises moving data to the cloud and users working from anywhere, CSPs need to offer IT and security leaders pervasive secure access solutions without compromising the user experience.

"Our customers are searching for a solution to enable their people to 'Work from Home,' but they have major concerns about the security of such solutions," said Mr. Maruta.

Cato's global SASE platform addresses this need for CSPs, converging access and network security into a global cloud-native service. With a single converged offering, CSPs can offer enterprise customers a secure access solution without the operational overhead of integrating and managing multiple third-party appliances and Virtual Network Functions (VNFs).

Keywords for this news article include: Cato Networks, Cybersecurity.

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Search Summary

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