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ACCELERATING GLOBAL BUSINESS SUCCESS ON THE CLOUD

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MEET THE TEAM

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*Names of the companies are in alphabetical order

01 FOREWORD

A dynamic business landscape, technological disruption, and immense competition are compelling enterprises to drive agility, bolster digitalization and meet changing customer demands. This is where cloud computing plays a crucial role and has emerged as a bedrock for accelerated digital transformation, helping companies unlock new business models, control costs, foster innovation, and achieve an edge over their competitors. A cloud-powered business model enables companies to scale up resources whenever necessary, simplify the overall IT infrastructure, and expedite their digitalization efforts.

Most enterprises across different industries (including logistics, gaming, retail, manufacturing, etc.) are embracing the transition from a traditional on-premise business environment to the cloud. According to **Statista**, revenue in the public cloud market is predicted to reach an annual growth rate (CAGR 2022-2027) of 16.27%, leading to a market volume of US$881.80 billion by 2027. Enterprises are constantly looking to take full advantage of advanced cloud solutions that can help them embark on a seamless journey to digital transformation and optimize their existing capabilities.

Alibaba Cloud (the digital technology and intelligence arm of Alibaba Group) helps enterprises seamlessly navigate roadblocks, modernize operations, and explore new opportunities through accelerated cloud adoption. We provide a wide gamut of industry-specific cloud-enabled solutions, a robust cloud infrastructure, and strong professional expertise to help our customers drive relentless business innovation with smooth cloud migration. As one of the global leaders in cloud computing, we feel proud that our secure cloud computing and data intelligence capabilities have supported millions of enterprises, SMEs, and organizations from the public sector in over 200 countries and regions to boost digitalization in the current technology transformation era.

This issue of the e-magazine features exclusive leadership interviews and industry insights from our global customers, including VisionGroup, Ninja Van Group, LunchBox, WEMART, BeLive Technology, AppGuru, Easymeeting, enish Co., LAWSGROUP, Classplus, and Sephora. Each article focuses on how technological innovation is changing the world and sheds light on how Alibaba Cloud's future-ready cloud infrastructure and powerful capabilities are supporting our global clientele to drive real business outcomes and transforming how they engage with customers.

In this age of disruption, cloud computing has the potential to fuel digital transformation for enterprises across varied industries. At Alibaba Cloud, our innovative products and solutions, technical expertise, vast business innovation experience, robust business ecosystem, and global availability enable companies of any size to seize the transformative potential of the cloud. We strive to help companies unlock value at every step, make a big difference, and race to the future faster with the cloud.

Selina Yuan

Alibaba Group VP & Alibaba Cloud Intelligence Int'l President

appguru technology

EXPLORE, EXPERIENCE, AND EXPECT THE BEAUTY OF GAMING FROM THE HEART AND THE CLOUD

Established in 2017, AppGuru is a leading Singapore-based technology company that offers top-quality mobile games development, publishing, and consulting services to clients worldwide. The company has an expert team of game developers, marketers, and quality assurance specialists who provide data-driven consulting services for game design, monetization, retention, and localization. AppGuru works closely with developers to help them publish and market their games quickly, efficiently, and cost-effectively. The company also leverages next-gen technologies to optimize its gaming services, customer experience, and operational costs. **Check Ho (CEO of AppGuru)** has shared some valuable insights into how cutting-edge technologies like the cloud can transform the future of the gaming industry in an exclusive interview with Alibaba Cloud. He also discussed the role of Alibaba Cloud in improving the security, quality, and availability of AppGuru's gaming services.

Check Ho
CEO of AppGuru

When did AppGuru launch its business? Why?

AppGuru was founded in 2017 by Chairman Mr. Qiu. He started AppGuru at the same time as another fund management company. I joined in 2021 and learned about Mr. Qiu's deep interest in gaming. We found common ground quickly because I started gaming (as a hobby) at 16 (years old). We wanted to find a balance between doing traditional business (investing) and more fun things (like gaming). Our gaming side (AppGuru) can cover a wider age group, but traditional investment generally focuses more on stocks, forex, and property.

You said you started gaming at 16. What sparked your interest?

At 16, I started playing WarCraft III as a hobby. Then, I joined a professional team. It's kind of every kid's dream (to become a professional gamer), but the moment I did, I regretted it instantly. Your game becomes your career. It becomes all about winning and losing; it's no longer about having fun. It didn't spark my passion anymore. After my stint as a pro gamer, I stayed in e-sports doing team management and events. Working in e-sports, I got to work a lot with game developers. I knew someday I wanted to get into game publishing (as I got older and ended my e-sports journey). At this point in my life, I'm fortunate. I've done game publishing and game development.

You started as a fan/ hobbyist and turned pro. Now, you're working as a developer/publisher. Was it a seamless transition? Did you have any snags or issues along the way?

It was not seamless, but I have a habit of always planning ahead. I already identified this as a goal from an early age. Every five years or so, I'll start thinking about my (life) stage and what's next. Then, I'll fill in the gaps, so that when the time comes, I can explore more opportunities.

Since we're already discussing it, let's stay on the gaming portion of AppGuru. Let's discuss all of the points AppGuru covers in the gaming industry.

We have three main pillars: **publishing, game development,** and **IP collaboration.** Today, we aim to license great games from overseas markets (China, South Korea, and other non-English speaking countries). As far as publishing, we license the game, localize it into English, and launch it worldwide. At the same time, the initial phase of setting up game development is important. We don't want to depend on the gaming industry elsewhere to provide games for us. We also want to build a team to develop (in-house) **hyper-casual games.** These kinds of bite-size games are great for commuters. People can play roughly 5-10 minutes per round. (This is big contrast) compared to **massively multiplayer online role-playing (MMOPRG) games** (like *Genshin Impact*) where you can easily play for two hours without noticing. There was a period when cryptocurrency games were very viable, but we didn't venture too deep because we thought it was too volatile. Instead, we support other people (companies). When they have ideas and money to build a game, we pick up the project like an agency. Lastly, we want to establish outside connections with intellectual property (IP) to collaborate with companies to bring their brand into the game. There is a benefit to bringing an established brand into a game. *PUBG* collaborated with Maserati, allowing players to drive and hide behind their cars in the game. Our end goal is to bring brands (IP) into the games we build to create hype and excitement. Each game/brand can attract different audiences, age groups, and markets. This (audience) data could be useful for brands that want to attract specific target audiences and improve sales.

When we discuss MMORPGs (and mobile/ Internet gaming in general), a lot of it relies on a stable/reliable Internet connection (4G/5G/low latency/ etc.). What kind of additional issues does AppGuru (or the mobile gaming industry) face? How has the cloud played a role in remedying those issues?

In the early stage, most of AppGuru's team members were veterans (in the gaming industry). They are used to working with physical servers and data centers. Everything (at that time) was not seamless or linked with the cloud. They needed dedicated (IT) teams and a heavy amount of upfront investments to start the business. When I first started, they (the veterans) suggested this traditional route to me. I was reluctant because I thought, *"What if things don't go well?"* The bill (I was quoted) was for roughly $1.2 million (to build the servers and hire people) over one year. So, I started researching. I reviewed a variety of brands and found Alibaba Cloud through a friend. They (the friend) explained why they were using Alibaba Cloud and showed me how it worked. It was much simpler than owning a single server where you need regular maintenance. This is where I found one of the main perks; if I need to use it, I will subscribe, but if I don't need it, I won't be wasting money. I don't need a lot of manpower or expertise on hand because Alibaba Cloud has a team that can advise/ help us with those things. A while back, we faced minor hacking issues. Back in the day, DDoS issues were common. The veterans explained how it could happen out of the blue and required the company to restart everything. There would be 1-3 hours of downtime (each time). It often happened when everyone was at home sleeping (after 1:00 AM), so the game would be down until everyone got to the office the next morning. *Needless to say, there were some panic attacks*. I realized there are so many ways users could hack us. When I learned about Alibaba Cloud's security features, it gave me (AppGuru) peace of mind. The main issues are upfront costs (using the traditional route and finding suitable candidates). The other portion is related to finding an easy-to-use and cost-effective route.

Highlight the differences between mobile gaming before the cloud era and in the cloud era. How have things evolved?

Standing on a CEO's perspective, the traditional method requires too many experts and resources to piece everything together. When using the cloud method, everything is already there. You simply need to choose the necessary tools to start your business.

Previously, you mentioned experiences with other cloud providers before migrating to Alibaba Cloud. Discuss some pros and cons you experienced and why you eventually migrated to Alibaba Cloud.

Honestly, the other cloud providers we tried were not catered toward gaming. They had name recognition and were known for security. In our case, our initial game covered Southeast Asia. We were concerned about coverage areas (and the service) not working as well as brands based in Asia. Also, some of those other brands were not cost-effective. Cost differences (compared to Alibaba Cloud) were huge! Eventually, I met Alibaba Cloud's local (Singapore) team during a Christmas event and felt a difference. They like to get things done very quickly. You can go straight to them with your problem, and they will solve it. Other teams don't always function like that. Other teams like to meet, build relationships slowly, and solve problems bit by bit. I *really* like how Alibaba Cloud's Team functions; everything is only a phone call away. The local team felt more like a friend than a business partner. Loving the people (we work with) gives us more trust. The product can be great, but it's also about trust. That made me think, *"Let's do it! This will be so much easier than the traditional method."* All of these things made us want to work more closely with Alibaba Cloud.

I think this is the first time I've heard the word *friendliness*, but one recurring thing I hear throughout many of these interviews is support. Tell us about the specific Alibaba Cloud products/services AppGuru uses and how they have made a difference.

We are using most of Alibaba Cloud's basic features with the ECS and Database services. Additionally, as our business relies heavily on stability and security, we rely on Alibaba Cloud's understanding of the vulnerability and importance of cyber security. We utilize their cloud-based security services and Anti-DDoS integration with Alibaba Cloud ECS, which safeguards our data and applications from DDoS attacks.

We've discussed a lot of things thus far, but what are the aims/ objectives of AppGuru as a company?

We are still gamers at heart. We want to find the big games out there. We want to find the jewels. We want to find games that only specific players in specific regions can understand and translate and share them with the world. This is our current focus under game publishing. Also, the next game we're launching has shown great results in China, South Korea, and Japan. Our immediate thought was, *"Wow, what if we bring this game to North America, Europe, and English-speaking parts of Asia?"*

As we round out this interview – if someone is reading about AppGuru for the first time, what do you want them to know? What is your message to the world?

This is a tough question! AppGuru has always functioned with a low profile. The beauty of the gaming industry is that people only care about the game. They care less about publishing (unless you're a huge company like Blizzard or Square Enix). I haven't thought about a *message* to the world before now, but if I had to say one, I'd say **our three E's**. We want to give players playing our game the ability to **explore** within the game, **experience** something they cannot find in the real world, and have positive **expectations** (about quality) for games we will publish in the future. We want people to know when they see a new game from AppGuru – this game has been tested and proven and will be available for everyone to enjoy. Be sure to check out our new game launching on November 21; it's called **Sacred Summons!** We have worked with high-profile musicians and celebrities. We are very excited to show everyone!

belive

UNLOCKING NEWER BUSINESS POTENTIALS WITH LIVESTREAMING

Founded in 2014, BeLive Technology offers fully customizable, end-to-end livestreaming solutions. It enables global organizations to reach out to more than 20 million users in Asia, with more than 50 million hours of high-quality and reliable video live streaming. BeLive Technology specializes in the development, customization of features, and operation of any type of livestreaming app or platform. This article brings a snapshot from an interview with **Hassan Abid, Chief Technology Officer at BeLive Technology,** and highlights how live streams have made strong headway into social media and e-commerce. It also focuses on how video content is the future of e-commerce branding. Let's explore the nuances of promotional live streams and how they can help businesses grow.

Hassan Abid
Chief Technology Officer
at BeLive Technology

First off, is the company's name pronounced like *be-leave or believe?*

Actually, it's pronounced *be-live* (combining the two words *be* and *live* – as in *live action*)

OK. When did BeLive launch its business?

Some notes say 2016, but we started as a B2C platform in 2014.

What prompted the beginning of BeLive in 2014?

Our founder Kenneth Tan was working in a similar industry in Japan and overseas. He thought about influencers and everyday people and wondered if there was a better way to connect them, not solely relying on posting videos. When influencers post videos, they want comments on the videos, interactivity, rewards, and monetization. Influencers' viewers/followers can send virtual rewards (gifts, stars, coins, diamonds, etc.) that can be redeemed from the platform. It's good that more users are coming to the platform through the influencer, and the influencer is getting something as well. This was the main idea (behind BeLive), a new revenue model.

You briefly discussed the new revenue model (as a reason for starting the company). Is that in line with the aims/ objectives of BeLive? Are there separate aims/ objectives?

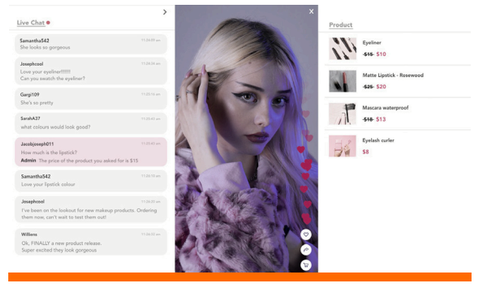
There are various phases of the company. There was a phase focusing on user acquisition (B2C). Then, it was a trend in 2018. Livestreaming is a big industry in China, but we wanted to replicate that across Southeast Asia, using Singapore as a base (of operations). Initially, our main goal/objective is to acquire more users and bring them to our platform, but Singapore is pretty small. After some time, you can cross a certain threshold and reach a saturation level where you can't acquire any new users. After our objective changed, we added more games to increase users' time on the app. In 2018, we launched **Live Trivia** (because these kinds of games were popular in the USA and other countries). A host will ask ten questions. If users can answer all the questions correctly, they will win some rewards (cash) credited directly to their PayPal or bank account. It became popular because it was live every day during lunchtime and after dinner, so everyone could participate. At the same time, we wanted to experiment with live shopping. Some big brands across Southeast Asia contacted us to pilot their live shopping (platforms). At that time, many of these brands did not have live shopping platforms yet, so they wanted to work with us (and influencers) to sell products. (When we offered) fully customized live shopping solutions for brands, (it) was the first of its kind in Southeast Asia. This is how we evolved our livestreaming app, bringing in many entities. Back in 2018, some big brands wanted to replicate this (success). However, if they used their in-house teams to build this, it would have taken a year, so they wanted to use our technology to build a livestreaming app for their e-commerce business. In 2018, we added Rakuten (as a customer). They wanted to connect sellers (on their platform) with livestreaming platforms, so users can start livestreams and promote products. Then, the interest continued into **social livestreaming.** It features elements of interactivity and e-commerce, so companies can bring influencers for entertainment while also selling things for the platform. Then, when COVID-19 started, (many) companies' directions changed, and every company wanted a livestreaming platform. Therefore, we went into different domains, including *empowering town halls.* People could not meet physically (especially people from different countries), so we empowered town halls. Changi Airport Group has a duty-free shopping platform, but since travel was halted to zero, they pivoted to a live shopping platform to sell their duty-free items. Then, another concept was (related to) shopping malls – using online platforms since customers couldn't see products physically. We partnered with Suntec City Mall to connect their shoppers with livestreaming and still offer an interactive feeling. Recently, we realized livestreaming should be accessible and low-cost, so we developed a software-as-a-service (SaaS) project called **LORA (Live One-to-many Retail Application)**. Any customer/brand worldwide can start using it to embed a livestream with live shopping capabilities on a website in a few hours. We wanted to make the whole process easier.

Go back and talk more about the live trivia. Is that still running today?

Some customers are still using it, but since we changed to a B2B platform, we no longer have a B2C platform. Instead, we empower a lot of other companies to create B2C platforms. Our SDK technology is implemented in their platforms. Recently, more companies are using live trivia, including a local radio station in Singapore and Samsung in Vietnam. Samsung used live trivia to train employees all over Vietnam, as a new way of engagement featuring quizzes and games.

Live trivia could be an interesting new way of engagement compared to traditional methods. You touched on livestreaming becoming very popular in China. In your opinion, why has livestreaming become so popular?

I was based in South Korea previously. There are a lot of K-Pop groups there, and people are always looking for more ways to interact with them. Most of the time, people watch their music videos or attend concerts, but the fans want something else, something more meaningful. Fans are interested in their daily lives, backstage things, etc. Livestreams became popular (in South Korea) because of K-Pop stars joining a platform called V Live. They would start livestreams before the concert to build hype and anticipation. The fans feel like they're being taken care of (by the K-Pop stars). The fans can add comments/feedback, and the influencers/K-Pop stars may read their comment aloud live. I think this personal connection is what made livestreaming a different kind of platform. I'm not an expert on China, but I can imagine a similar thing happened and made livestreaming popular in China. Even Alibaba has used livestreaming and live shopping during its Double 11 sales. There's always a new record being set every year! All of Asia is trying to follow this trend. We want to bring this trend to Europe and the US, but we need to change our strategy slightly.



Based on the interaction aspect, would you say livestreaming is the natural progression of social media?

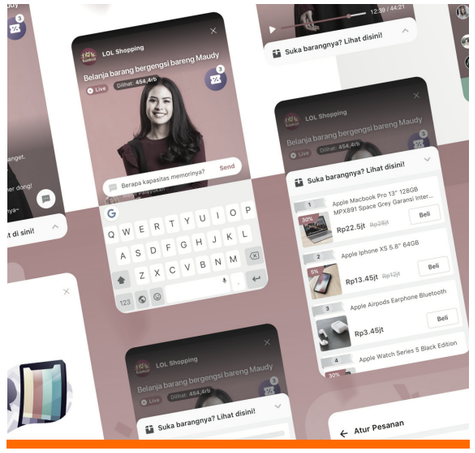
Yes. During COVID-19, roughly 80% of the Internet's data was (streaming) video. Based on our experience and all the analytics we've seen, live video generally has more appeal and excitement than static video, but videos are a better way to interact with customers compared to photos or other posts. When people can meet in a physical place, the interaction is more genuine, but your audience reach is limited. (Livestreaming) is like a new version of social media where you only use video to interact with fans (audiences).

That's interesting. I read a presser from Instagram weeks ago, and it discussed how users interacted with video more often than photos, so much so that Instagram rarely shows pictures on their timeline feeds anymore (compared to videos).

We are also empowering short videos (15 seconds, 20 seconds, and one minute). We think the video (content) will prevail in every way. We also plan to add interactive elements on top of this. You are right. That (videos being more popular than still images) is generally the feedback we've received.

Most of the platforms using livestreaming we've discussed so far fall under social media, social interaction/ experience, or e-commerce. Do you think it's important for non-e-commerce businesses or non-social media businesses to implement some kind of livestreaming?

We have some use cases where non-e-commerce players are taking part (in livestreaming). One example earlier was town hall. **Town hall** works because of its anonymity aspect. People can ask questions freely. Another example is in education – the **trivia** example earlier, school tutorials, lectures, and Q&A sessions. More recently, there have been some things related to gaming/game streaming. I think there is a lot of scope for non-e-commerce businesses and websites as well.



We've discussed some of BeLive's world-renown clients (like Rakuten), but let's go back to the beginning. Let's discuss the first (or some of the first) client(s). How have the objectives, system, or business model of BeLive changed as the company has evolved and expanded?

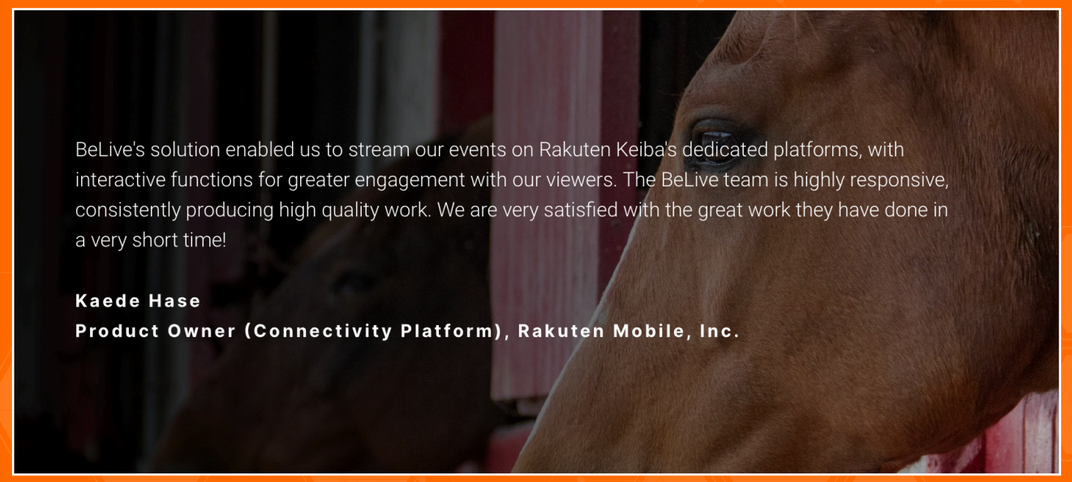
Our first big customer was Rakuten. Before that (and when Rakuten came aboard), we were still B2C and ran our platform for an additional year. Then, we realized if we wanted to input more technology and develop new features, we needed to focus on our B2B business. Now, we have a lot of ways to help clients monetize, increase customer engagement, and pivot if necessary. We introduced **(live) trivia, live polling** *(some brands want feedback about their brand)*, and **sentiment analysis**. People write a lot of comments on the livestream, but we want to analyze the comments to see the general perception of how viewers like the host and the livestream overall. Initially, we developed something in-house. It was only for product livestreams, but we extended it to influencers. Sentiment analysis is still in the pilot stage (not ready for the public), but the idea can help companies know which influencers to continue using (if they hire a lot of influencers) for certain products. We built this platform for a couple of customers, and if the feedback is good, it can be deployed for all the customers in our long-term strategic goal.

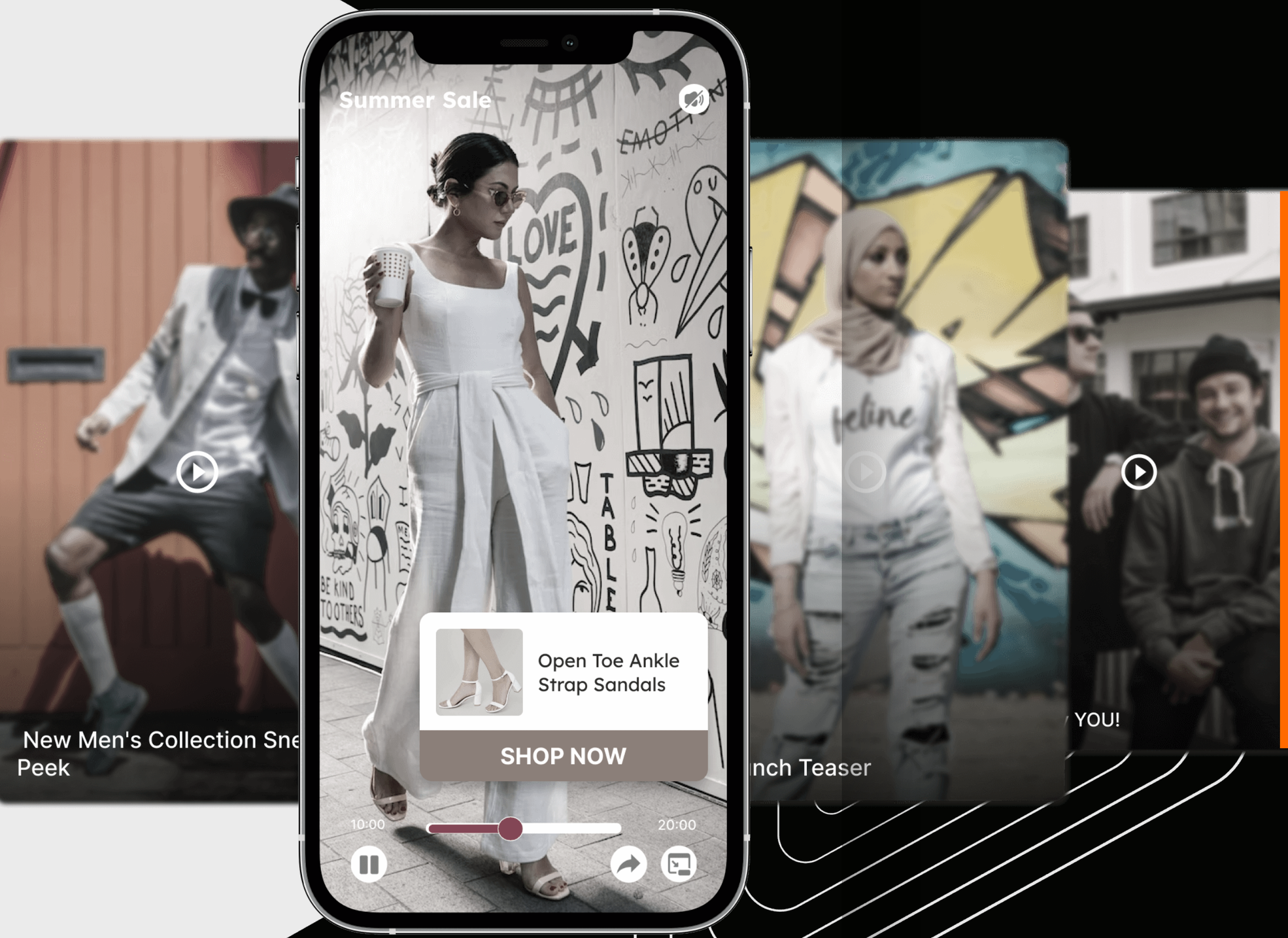
Let's discuss BeLive pre-Alibaba Cloud and post-Alibaba Cloud. Which products/services help BeLive the most?

Yes. I will also address where we started and how we expanded globally. We started in Singapore and then expanded to Japan. As the demand for livestreaming grows, we plan to expand as necessary. We are planning to work with two of Africa's largest e-commerce platforms. Our SaaS solution has entered the Latin American market (Mexico and Colombia). The technology is in demand, but it is a new thing locally. As a result, they want to pilot it first as a globally available, low-cost solution. This is where Alibaba Cloud comes into play. Alibaba Cloud has a global presence and cost-effective and reliable solutions that have been proven in and out of China. We want to focus on apps and new feature development and let Alibaba Cloud handle the complexity behind livestreaming and infrastructure. Two Alibaba Cloud products we use are ApsaraVideo Live and Real-Time Communication. Additionally, we use Alibaba Cloud's data and infrastructure to empower customers with livestreaming solutions. We appreciate the reliable and stable system and top-class support from solution architects.

Are there any facts, figures, or examples you have that show the efficiency of your cloud-based platform and your customers' satisfaction?

While we do not have any exact customer satisfaction scores, we receive compliments and testimonials from our clients (which are featured on our website). Here are a couple of samples:





We discussed a lot of things during this interview. As we round everything out, is there anything else you want readers to know about BeLive?

BeLive is trying to revolutionize the livestreaming industry. At the same time, we want to make it accessible and fast to deploy with a global presence. This is where our SaaS solution came into play. It's a low-cost solution. Users can be up and running within a couple of hours. You can have an onboarding meeting today and be ready to livestream tomorrow. We have made mistakes over the years, but everything came together after years of feedback and new technology. If you want to try livestreaming, it's not rocket science! Any brand or website can get running with our LORA solution!

04

Classplus

MORE ACCESSIBLE AND IMMERSIVE ONLINE EDUCATION MADE POSSIBLE WITH CLOUD AND VIDEO TECHNOLOGY

Founded in 2017, Classplus is an Ed-Tech start-up company focused on transforming India's education space by providing educators with advanced digital tools and resources. The industry-first mobile SaaS platform by Classplus enables private coaching institutes to build their own app, helping them digitize offline tuition and sell courses online. It allows them to easily manage operations, including online assessments, payments, communication, video content distribution, etc., through a unified digital distribution platform and reach students across the country. So far, more than 1 Lakh coaching institutes across 1,100+ Indian cities have successfully executed their online business through apps developed by Classplus. **Manish Chawla, Chief Technology Officer (CTO) at Classplus,** shared valuable insights into how future-proof modern technologies such as cloud and advanced video streaming are reshaping the online education system in an exclusive interview with Alibaba Cloud.

Manish Chawla
Chief Technology Officer (CTO) at Classplus

As we begin, I see you have your advertising/ branded shirt today! You came prepared for the interview!

Every day is about brand loyalty!

…that plus the whiteboard behind you – you're ready for a lecture!

I always keep whiteboards handy! Every time I need to explain something, it comes in handy.

Let's start with some basics. When did Classplus launch, and what was the reasoning behind starting the company?

Classplus was incorporated in December 2017. The main reason why we exist in the first place is to enable educators, content creators, and coaching institutes with world-class technology stack and a means to build their own brands so that they could earn and grow more. Today, if you ask children what they want to be (when they grow up), they say *doctors or engineers* but none say, *teachers*. Why? It is very hard to monetize the knowledge of teachers (what they know and what they can do). *Money should not be the reason why someone doesn't want to be a teacher and hence* we built our platform that enables and support them. They can (use Classplus to) multiply their earnings by multiplying their audience.

Are you approaching this (Classplus) from solely a business background, or were you also a teacher previously?

No. I have been a **technocrat** most of the time. The founders do not come from a teaching background either. While I was studying, I saw a lot of struggle by myself from a student's standpoint. Education these days is very expensive. If you ask a young lad about colleges they would like to attend, they always talk about **premium colleges.** If you ask someone interested in engineering, they will say they want to go to IITs, NIT, etc. If you ask someone interested in medicine, they will say they want to go to AIIMS. Unfortunately, there are not enough seats in premium colleges. And hence, there is so much competition for limited seats that these colleges have. And for that, there are these coaching institutes that have come up. They are offering real estate for people to come and get educated and get prepared for competitive exams. They need to spend money on marketing (and other things) and also need to profit. Essentially, our technology can enable them to reduce costs. When we can reduce costs (for these coaching institutes), the end consumer which is the student in our case is the winner.

I was browsing the website earlier and saw one phrase a few times – coaching institute. Could you tell all the readers what a coaching institute is?

A coaching institute is a place where students aspiring for higher education (engineering, medicine, etc.) gather to prepare for competitive exams. The students can go there and get *coached* in specific areas that are a part of the curriculum. We would like to think someone doing general studies should have enough (knowledge) to complete (during the exams), but these extra classes can give learners a leg up over the competition. A coaching institute has faculty, limited seats, and real estate (a physical building). Classplus can enable these coaching institutes to get digital and hence reduce the infrastructure and faculty costs and allow students to take classes with multiple teachers easier.

Would someone join a coaching institute alongside high school classes, or would it be a stopover between high school and university?

It works alongside high school. Most coaching institutes start after 4:00 PM, once students finish their school day.

So, all of the people in the coaching institutes are young people? 17-19 (years old)?

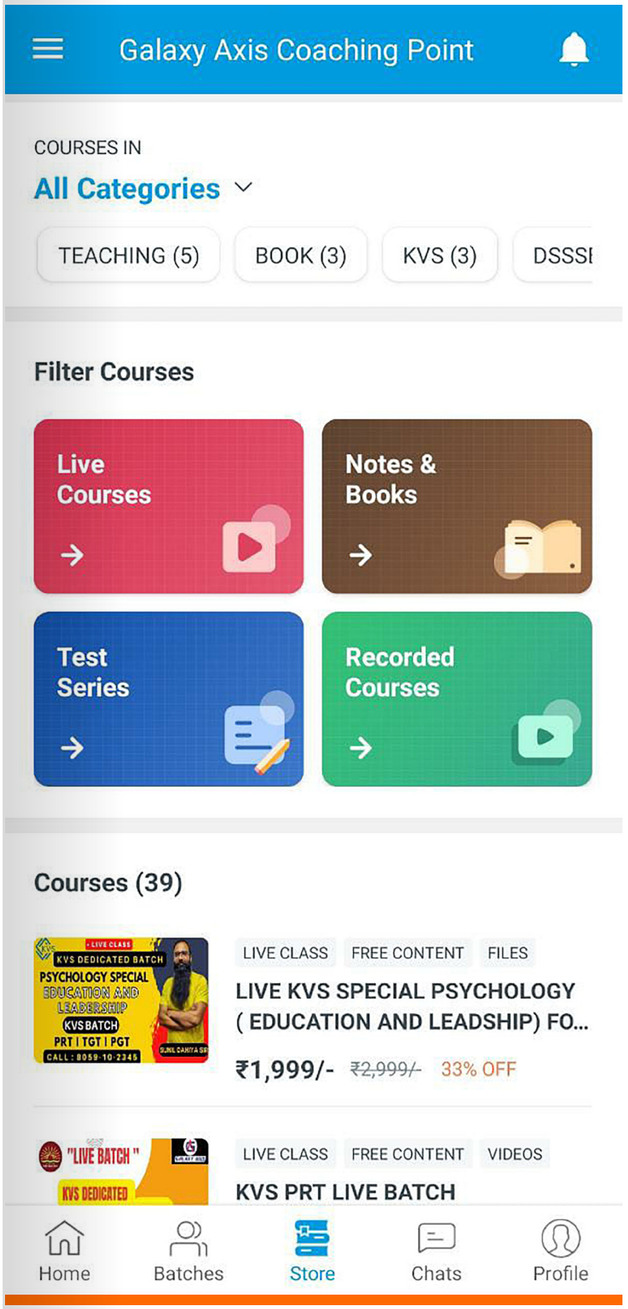
Absolutely, but coaching can start much earlier in India. Some students start around 14 (years old).

I saw some additional things on the website about coaches and using Classplus for digital learning. How can attendees/coaches benefit from using Classplus for digital learning vs. in-person learning?

When discussing learning, there are two processes of learning: **synchronous** and **asynchronous**. **Synchronous learning** happens when two people are talking in real-time. There are specific materials the attendee can access in their free time. Classplus offers both of these with built-in monetization on top of it. Students can access live lectures, and tutors can use our product stack to communicate in real-time. **Asynchronous learning** happens when learning does not occur in the same place or at the same time. We also provide recordings of this digital stack/conversation. Additionally, if a tutor is not giving a live lecture, they may offer bonus courses explaining specific concepts. Traditionally, the tutor could only post this content on YouTube (or similar pages), but monetization on YouTube is difficult. Monetization (on YouTube) only comes through ads, subscriptions, views, and likes. Classplus lets tutors create videos and monetize directly. For example, OTT platforms offer subscription models for renting and watching movies. Classplus allows someone to purchase videos from tutors imparting knowledge. These are the main two ways we use our digital means, but it does not stop there. It also includes giving online assignments/tests and real-time chats. We also offer a mobile app that allows tutors to publish and use freely. Tutors can build their brand and become B2C in a way. Similar to what Shopify is for e-commerce, Classplus is (the same) for tech.

We're discussing a lot of computing terminology (real-time, latency, etc.) so far, but let's discuss any business challenges you've had, especially when it comes to digital aspects (using the app, assigning homework, etc.)

Although we are progressing toward (nationwide) 5G, India is a large country. Geographically, there are still remote areas where the Internet networks are not great. Beyond that, there are (issues with) devices. iPhone and iOS have a (high) standard, but it comes with a premium (cost). Still, a majority of the people in India cannot afford an iPhone. However, phones running Android typically cost under $100 and offer a larger gamut, so they (Android) have more customers in India and worldwide. Typically, when building products for this kind of fragmented market, there are a lot of issues. A lot of times, the videos may not render properly because of network issues. Many times, audio may not play properly because of handset/phone issues. All these things (and more) will come back to us as user feedback. We need to work with users to fix everything. However, the good part about the software is *nothing is impossible.* Whether it is a hardware issue, network issue, or OS issue, they can be fixed with a good software layer that interacts with these components. We try to use the power of software (to its fullest extent), but it's a long and hard journey. We operate pan India and across the globe. Even though the majority of our customers are in India, the sheer geography makes it hard for us to be operational on a single network. As we use CDN for content delivery, the providers need to work between multiple networks. The overall quality will be based on how good the network provider is in that area.



When did cloud computing come into play? When did Classplus become interested in working with the cloud?

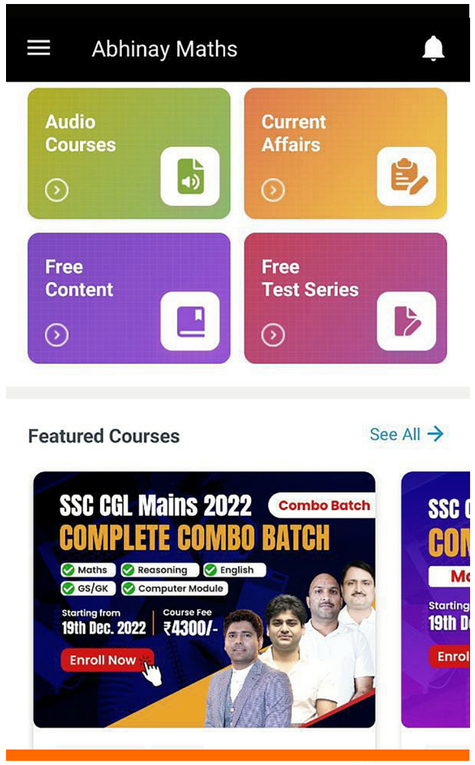
We started using the cloud in 2017 (at the start of the company). As we wanted to start with an **asset-light model**, cloud was an obvious choice. We started with the cloud on day one, and we are still using the cloud today. We don't use the cloud as just an infrastructure, but we use other services that a cloud service provides like Platform as a service as well.

Since you worked with the cloud from the beginning of your company's existence, had you encountered Alibaba Cloud previously?

Yes. I had already worked with other cloud service providers but encountered Alibaba Cloud for the first time in 2015-2016 when I was with a digital payments and financial services company. We migrated a lot of in-house services to Alibaba Cloud. We worked extensively with the Alibaba Cloud team to build a private cloud and Alipay+ (through Singapore) and worked with Ant Financial. Then, I moved to a restaurant aggregator and food delivery company, and we used Apsara Stack (among other things).

Your previous experience with Alibaba Cloud was probably the main reason, but why did you migrate to Alibaba Cloud, especially after working with other cloud service providers?

We used another vendor for video-on-demand (VOD), but the cost of VOD services was high, so we wanted to optimize cost and efficiency. This led us to choose a hybrid cloud/multi-cloud strategy. We moved the VOD service to Alibaba Cloud ApsaraVideo VOD. ApsaraVideo VOD is very cost-effective. The overall migration experience was smooth, with utmost speed to marker.



OK. We've discussed experiences with multiple cloud services, but earlier, you mentioned how tutors could download your app and become B2C. Are you familiar with Blackboard or other websites/services that work with universities? Why did Classplus launch a mobile app service rather than sticking strictly to a website?

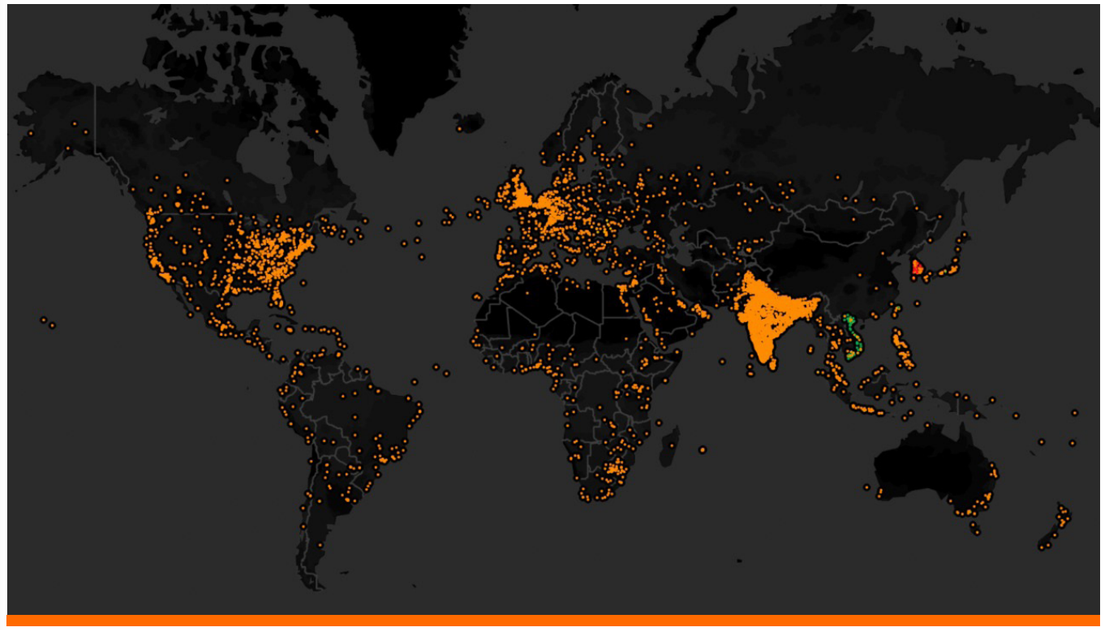
Nice question. Fortunately or unfortunately, India being a developing nation has skipped a couple of technology evolution cycles. For example, when mobile phones were introduced, there were still some people unaware of landlines. So, for them, they have skipped a generation of landlines. Similarly, a lot of people never had access to a desktop or laptop computer but have accessed the Internet for the first time on a mobile phone. We have skipped two cycles/generations there, landline phones and desktop computers. When we skipped the second cycle/generation, it was very evident that if we only created a website (or only offered a stack via the web), it would not work (for everyone). A lot of people have Internet access on their mobile (phones) but don't have access to desktops or laptops in general.

That's a great answer. It's something I didn't consider – the country's background and data accessibility within the country. How does that relate to the aims/objectives of Classplus as a company?

We want to be a household name for any educator or content creator. The moment they choose the enterprise route, we want Classplus to be a savior for them. Initially, when people wanted to create an email address, the first service they thought of was Hotmail (and Gmail later). If you want to make a photocopy, you think making a Xerox *(even though that's the name of the brand rather than an action).* We want Classplus to be on that level for educators and content creators.

As we round out today – final words. If readers have never heard of Classplus, what do you want them to know about your company? What is your message to the world?

We are a company that does not rest on its successes. We believe in the success of customers. Our customers are educators and content creators, and we look forward to their success. We know if our customers are successful, we will be successful, and it will enhance whatever we do. Also, I have provided one image *(please see the image below)* to convey how I want the world to view Classplus. The map depicts people/places using apps built with Classplus across the globe. This shows how widespread Classplus' content creators are worldwide.

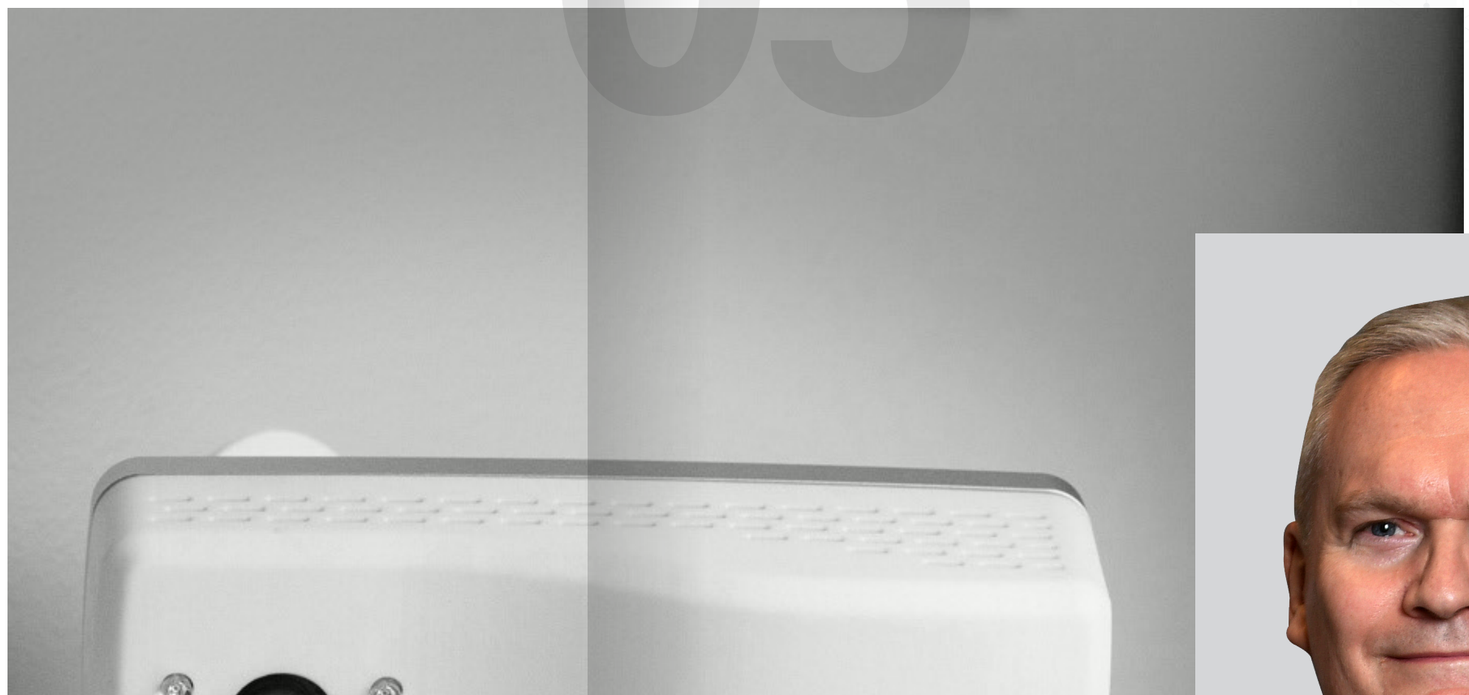


05

easymeeting

ENHANCING VIDEO COMMUNICATION WITH GLOBAL VIDEO INFRASTRUCTURE

Easymeeting launched its business in 2012 as a spinoff from an AV-Integration specialist. Easymeeting has been developing and delivering high-end and user-friendly video services for several years now. From the initial idea of building cloud services for video conferencing in education, the company shifted focus to using video expertise in healthcare in the last few years. Easymeeting developed three products specifically for healthcare just before COVID-19. There is a strong demand for solutions to make healthcare more effective. With the primary product, **Nattugla (the night owl), an AI-powered supervision camera,** Easymeeting helps nursing staff provide safe and healthy sleep for older people receiving care. The product has received a positive response in the market and the company is proud to contribute to solving a global problem for the healthcare sector.



Hans Johan Tofteng

CEO of Easymeeting

**with supplementary answers from Raymond Sebergsen (Product Manager of Easymeeting)*

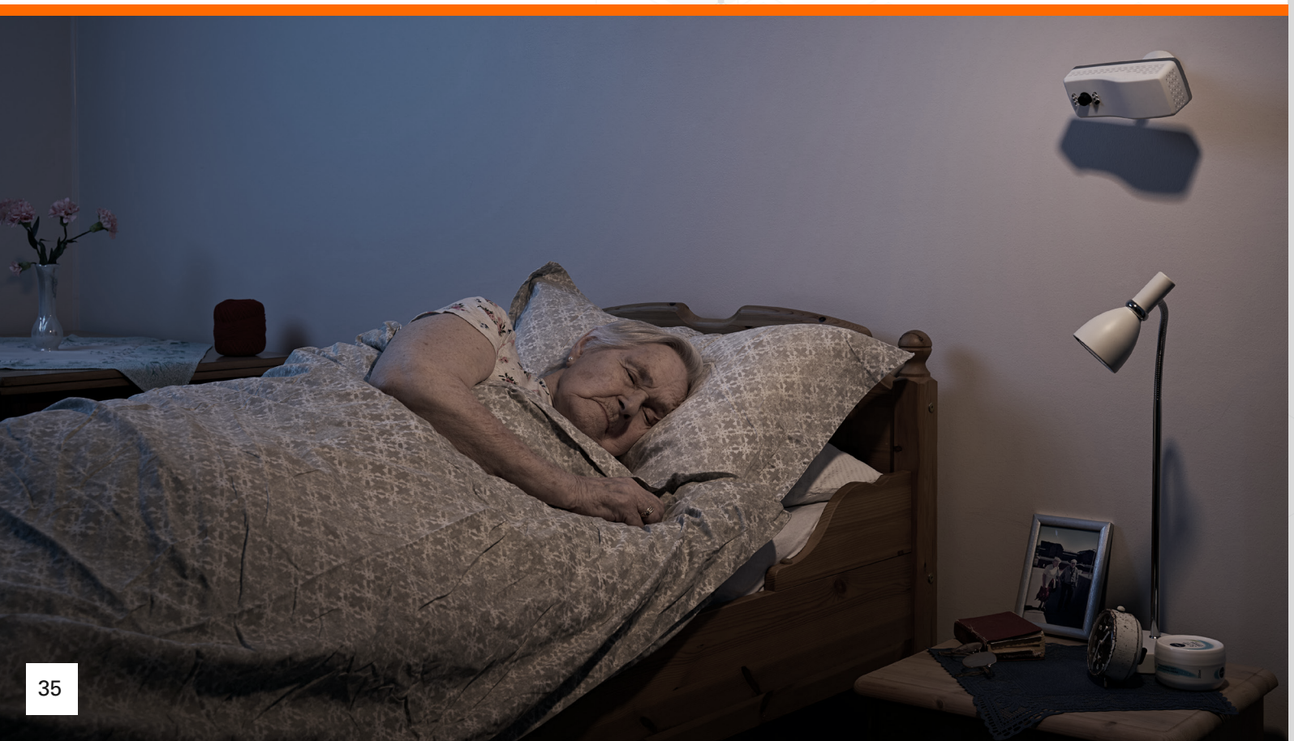
When did Easymeeting launch its business? Why?

Easymeeting launched its business in 2012 as a spinoff from an AV-Integration specialist. Easymeeting has developed high-end and user-friendly video services for several years. Our initial idea was to build cloud services for video conferencing in education. Easymeeting was subsequently developed as a highly scalable platform for delivering cloud services for the global video conferencing market (also known as VCaaS and VaaS).

We have shifted focus to using our video expertise in healthcare over the last few years. Before COVID-19, we developed three products specifically for healthcare. There is a strong demand for solutions to make more effective healthcare options. Our main product is **Nattugla** *(the night owl)*, which is an AI-powered supervision camera that helps nurses provide safe and healthy sleep for elderly people that receive care. The response in the market (after launch) is very good. We feel that we solve a global problem in the healthcare sector.

What gaps did Easymeeting see in the video conferencing market? How did Easymeeting's business address/remedy those gaps?

The traditional video conferencing market (which emerged from the telecom industry) did not succeed in making itself scalable. They had the best user experience and high-quality audio and video, but when the large players in the computer industry entered the market, they lowered the user experience. However, they successfully introduced the scalability and availability that telecoms did not deliver to the market previously. We strongly believed that there was a need to make high-quality and easy-to-use services.



What are the aims/ objectives of Easymeeting in the video conferencing space and as a company?

Our mission is to enhance conversations by delivering the easiest and friendliest video communication solution in the world. We will continue to make super user-friendly solutions where privacy is highly valued. In healthcare, privacy and GDPR are crucial principles that all communication providers should follow. The goal is to make a video meeting easier than a phone call.

What challenges did Easymeeting face as a company? How did cloud computing play a role?

Easymeeting had been growing and developing our service platform on several co-locations with other cloud service providers. We were looking for a global provider that could help us optimize costs but were very satisfied with other providers. We did not think about replacing anything when we got in touch with Alibaba Cloud.

Since migrating to Alibaba Cloud was not a necessity for Easymeeting, describe why Easymeeting migrated to Alibaba Cloud. Which Alibaba Cloud products/ services have made the biggest difference for Easymeeting?

Easymeeting migrated to Alibaba Cloud because we got direct access to knowledgeable solution architects. We learned that Alibaba Cloud's architecture was modern and worked well. Also, we felt the connection and the relationship with Alibaba Cloud could grow in a better way than with others (cloud service providers). Elsewhere, we would always be one of a million customers. We liked the idea of getting closer to our provider. Additionally, Alibaba Cloud has co-locations all over the globe, making it easy for us to deploy our global video infrastructure. Alibaba Cloud offered us high-quality products/services, knowledge, and great value for the money.

The main Alibaba Cloud product we use is Elastic Compute Service (ECS), but we are looking into several other services for scaling, redundancy, and monitoring. When we installed our platform on Alibaba Cloud, we were surprised at how easy and effective each stage of the process was. We completed everything from tech setup to payment options in no time.

enish

LEVERAGING ADVANCED CLOUD TECHNOLOGIES TO UNLOCK SCALABLE GAME OPERATIONS

As a leading game production company in Minato-ku, Tokyo, enish Co. Ltd. focuses on planning, developing, and operating mobile games. The company has produced many popular titles, including the original RPG **De:Lithe: Forgetting True King and the Engaging Angel**, which garnered 7.77 million downloads. The latest smartphone game from enish, **Attack on Titan: Brave Order,** is based on the popular manga **Attack on Titan,** which has sold over 100 million copies worldwide and is receiving positive reviews from gamers. It is a multiplayer co-op RPG that allows players to collaborate with up to 300 other players. The game achieved one million downloads on its first launch day and has since broken records one after another, surpassing three million downloads in about a month.

Working in the game production space, enish witnessed tremendous success with games but has also faced a multitude of complexities in terms of network breakdowns, technological limitations, and more:

Outlined below are the top four challenges that enish encountered:

- **Frequent Network Failure**
  While the business was steadily expanding, enish was plagued by frequent network failures, and rapid network expansion was a pressing issue.

- **Domestic Cloud Limitations**
  There were maintenance and operations-related hassles after using the domestic cloud for many years, including application-based network expansion with an awareness of the physical layer and unexpected server migration work due to physical limits.

- **Public Cloud Constraints**
  Given the limited ability of the domestic cloud in terms of scalability, enish also started using the public cloud. Although there was no need to be aware of resource limitations, it became frustrating to be unable to resolve issues on time due to the ticket-based support system.

- **Service Obsolescence**
  Since service deployment in the domestic cloud was IaaS-centric, there was an enormous burden of storage expansion and switching in the event of failure, which was not much different from on-premise.

  The latest cloud technologies related to the public cloud, including advanced and convenient features such as highly automated and fully managed services, offered much-needed flexibility and convenience. Hence, it was an attractive choice for enish.

> “With Alibaba Cloud, we were able to fully utilize the advanced cloud technology of the public cloud, which we had longed for, and achieve stable operation of a large-scale system with a large number of users. We are very happy with the results.”
>
> ***- Mr. Tan, Leader of the Technology Department, enish Co. Ltd.***

Moving Past the Key Challenges with Alibaba Cloud

After considering various aspects, enish selected Alibaba Cloud as the ideal system migration partner. Alibaba Cloud met all of the requirements in terms of scale and security, including holding the world's third-largest market share and compliance with major international information security standards.

Simplifying Game Operations with Alibaba Cloud's Technological Solutions

Alibaba Cloud offers the most advanced cloud technologies, including containers, databases, and frequently updated virtual machines with the latest CPUs. In addition, the industry's best-in-class SLAs (including virtual machine services) are critical to ensuring system stability. The latest cloud technologies (such as containers and databases) have made various processes more efficient and significantly reduced maintenance and operation hours:

Below are the latest technologies by Alibaba Cloud that helped enish move past the barriers:

- **Kubernetes-Based** Container Services
  With Alibaba Cloud Container Service for Kubernetes (ACK) container deployment can only be done from the console, and configuration files can be reused to build multiple servers simultaneously.

- **Cloud-Native** Database
  enish successfully migrated to a fully managed, cloud-native database, ApsaraDB PolarDB for MySQL. The highly scalable service supports a capacity of 100 TB and eliminates the need for redesign and data migration during instances when performance or capacity limits are reached. Another key feature is that despite the large capacity, backups can be completed in an extremely short time compared to building the system in-house.

- **Extensive Migration Tools**
  A rich set of migration services is available (including Server Migration Center for virtual machines and Database Transmission Service (DTS) for databases) to automate virtually any migration task between Alibaba Cloud products and on-premise or external clouds.

- **Reasonable Cost**
  Most Alibaba Cloud products (including virtual machine services) are available on a month-to-month subscription basis, making them reasonably priced from the outset.

- **Sincere Support**
  In addition to a ticket-based support system, chat tools help facilitate quick consultation with the sales and technical staff. In addition, requests for product development can be made directly to Alibaba Cloud. When switching to the production system this time, Alibaba Cloud provided extensive support with sales, technical staff, and dedicated account technicians on call. The flexible support provided in each situation allowed enish to complete its work seamlessly.

Understanding the Technical Architecture

The server configuration overview of the Attack on Titan: Brave Order system is outlined below. It consists of seven different game and resource servers – Battle, App, Chat, Party, Notify, Tool, and GvG, based on their specific roles:

- **Resource Server**
  It adopts ObjectStorageService (OSS) for storing and managing resources. Static hosting functions are used to deliver resources to clients. Alibaba Cloud CDN is used for faster and more efficient delivery of large files.

- **Game Server: Battle Server**
  The Battle Server is built on a state-of-the-art Elastic Compute Service (ECS) instance with the built-in game development framework and a unique redundant configuration to distribute the load, enabling up to 300 simultaneous co-op players.

- **Game Servers: Six Other Servers (App, Chat, Party, Notify, Tool, and GvG) (* Except Battle)**
  The six other servers (App, Chat, Party, Notify, Tool, and GvG) are containerized using Container Service for Kubernetes (ACK).

- **Data Infrastructure**
  Various game data (including play information) is stored in ApsaraDB PolarDB for MySQL. From the container service, logs are linked to LogService by simply specifying at the time of cluster creation. Furthermore, data is linked from LogService to AnalyticDB for MySQL, a database for analysis. Finally, it is used as a data analysis platform for BI tools. Almost all processes on Alibaba Cloud from container > log collection/ analysis > data analysis infrastructure can be configured automatically by operating the console screen.

Future Outlook

enish looks forward to expanding its data analysis and visualization infrastructure with Alibaba Cloud, focusing on Quick BI. Quick BI is a tool that enables interactive analysis, searching, and reporting of large volumes of data will accelerate data-oriented decision-making and contribute to the provision of better-quality services.

LAWSGROUP

SPEARHEADING GROWTH IN INTERNATIONAL MARKETS WITH SMART MANUFACTURING

Established in 1975, LAWSGROUP operates as a global clothing manufacturer, offering sustainable and quality apparel for the world's leading fashion brands. LAWSGROUP has contributed to the adoption of cost-effective, eco-friendly clothing worldwide and emphasizes using innovative and sustainable manufacturing practices to offer superior quality products and achieve high customer satisfaction. LAWSGROUP also manages a wide range of business verticals across industries, including business, retail, real estate, and property management and smart solutions for its overseas manufacturing plants to implement smart manufacturing as part of environmental and sustainability objectives.

As a global fashion conglomerate, LAWSGROUP wanted to expand its supply chain network across APAC, with offices and factories spread across the region to manage infrastructure operations locally. However, due to the COVID-19 travel restrictions, they needed a solution to help them remotely manage processes and IT systems across different countries to ensure employee safety and compliance with regulations. The company needed a stable, global networking solution to ensure smooth interconnectivity and data exchange between its international offices and ensure high performance and system compliance. LAWSGROUP wanted to migrate mission-critical applications to the cloud to ensure all-around service availability and eliminate the risks associated with high network latencies and low connectivity. They needed a scalable backend infrastructure to ensure continuous operations and improve customer satisfaction across their lines of business.

Seamless Cross-Region Communication with a Global Network Infrastructure

LAWSGROUP chose Alibaba Cloud as its preferred partner to meet its digital transformation goals because of its proven track record of helping leading organizations go to market faster and achieve unparalleled growth via its innovative networking solutions. Alibaba Cloud's vast portfolio of cloud solutions and pay-as-you-go pricing model also played a critical role in strengthening the partnership. LAWSGROUP implemented a range of enterprise networking solutions like the **Cloud Enterprise Network (CEN)** and **Express Connect** to help solidify its presence in new regions in APAC. With the CEN, the company was able to set up a high connectivity distributed global network across different regional facilities with low network latencies and secure data transmission capabilities. **The implementation helped improve communication and collaboration across the merchandising and production teams by 90 percent. It also improved the production planning time by 50 percent due to the real-time exchange of information between the production and supply chain teams.** LAWSGROUP also leveraged **Alibaba Cloud Container Service for Kubernetes (ACK)** to deploy and manage the lifecycle of containerized applications on the cloud in compliance with system requirements and to ensure highly secure data transmission. The all-around assistance offered by Alibaba Cloud in cognizance of LAWSGROUP's goals from the transformation helped them migrate operations to the cloud smoothly. **The company accelerated the time taken to go to market with a faster turnaround on application server procurement with a swift deployment timeframe of just two weeks, thanks to the implementation.**

LAWSGROUP looks forward to continuing working with Alibaba Cloud to bolster rapid business growth in international markets, equipped with a robust cloud infrastructure solution for smooth cross-border connectivity and rapid data transfer capabilities. They also look to strengthen their alliance with Alibaba Cloud towards implementing more green technology solutions in alignment with their sustainability goals.

LunchBox

SMART POS SOLUTION ON THE CLOUD INJECTS NEW VITALITY TO THE F&B INDUSTRY

Established in 2021, LunchBox is a Point of Sales (POS) smart restaurant solution, offering restaurateurs deep visibility and meaningful insights into customer relationships, staff management, inventory management, and payment processing on a single, centralized platform. LunchBox aims to help businesses upscale their operations, build customer portfolios, reduce ticket turnaround times, and automate paperwork and administration tasks to drive improved business revenue and build meaningful customer relationships. **Shaun Markus Lee, CEO of LunchBox,** discusses the digital transformation journey of LunchBox and how they leveraged Alibaba Cloud's extensive global node network to build fast and stable network connections worldwide. Let's explore how LunchBox accelerates innovation in the F&B space with the high availability of secure databases by hosting on the cloud.

Shaun Markus Lee

CEO of LunchBox

When did LunchBox launch its business? Why?

We did a soft release in the market in late 2021.

Oh, fairly recent.

Yes, we are about 13 months into operation.

Just over a year, happy anniversary!

Well, thank you.

So, in late 2021, in a *slightly* post-pandemic world, this could have been a big risk – why did you choose to launch then?

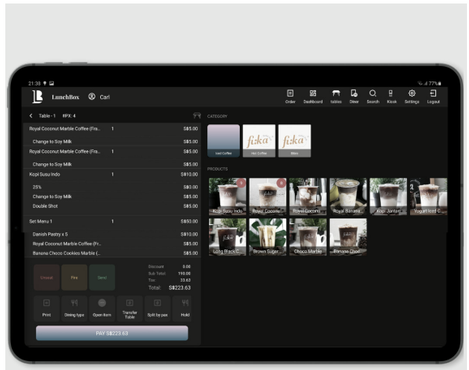
We saw the economy was slowly waking up from the pandemic. There was a lot more activity after the lockdown. The lockdown changed ideas about connectivity, especially in the F&B space. There were many great, useful, temporary solutions during that time, but we understood market, it was only a matter of time; before we would need a change. Managing so many different softwares while managing businesses would be tedious. Plus, the world has changed – managing manpower, social distancing, etc. We took everything into consideration and realized we needed a simple, user-friendly tool that ties everything together.

Simple and user-friendly, I like that. What are the aims/objectives of LunchBox as a company?

The ethos of our company is to create **one operating system** that effectively aids all F&B operational leads. It's all about making it simple and easy to use. LunchBox is a smart point of sales (POS) solution for restaurants to run a successful business.

Let's dig more and discuss POS solutions. If you were explaining POS to a young person (a child or teenager) with no clue about POS, how would you explain it in the simplest terms?

In layman's terms, point of sales (POS) is a glorified calculator! It's designed to calculate your sales – how much you sell and how much you have sold.



Expand on that bit. You have this *glorified calculator*, but it's more than sales. How does LunchBox differentiate from other (or traditional) POS solutions?

This is exactly what LunchBox is trying to achieve. There are many solutions doing point of sales; a lot of them are glorified calculators. They overcomplicate everything, put it into a really big device, and sell it for an expensive price. LunchBox studied the industry, and the most profitable operators are international fast-food chains (best profits + best number of customers). We realized this happens because they can systemize their entire workflow. Unfortunately, this process is expensive (between sales, operations, inventory, analysis, etc.) We want (to have) smart, all-in-one management that gives operational productivity in simple, easy-to-use apps for everyday (business) owners. Designed by experts in the field, we provide restaurateurs with in-depth visibility into customer relationships, staff management, scheduling, table seating, inventory management, and payment processing on a centralized platform. It helps businesses drive more revenue, turn customers into lifelong patrons, reduce ticket times, and minimize paperwork and administration tasks.

I know POS often works with restaurants specifically. Would you say POS is important in other kinds of businesses or e-commerce?

POS is essential for every business. It is about how much depth and clarity you want. For instance, if you need to know about sales (how much) each day, the *glorified calculator* will be fine. But, if you want to know meaningful intelligence about your business – this needs more sophisticated tools (all of which can become tedious). It all depends on how deep you want to take your business. We take the most elaborate situations (your business can face) and simplify them so you can see them at one glance.

It seems like the all-in-one platform helps drive more insights for the business.

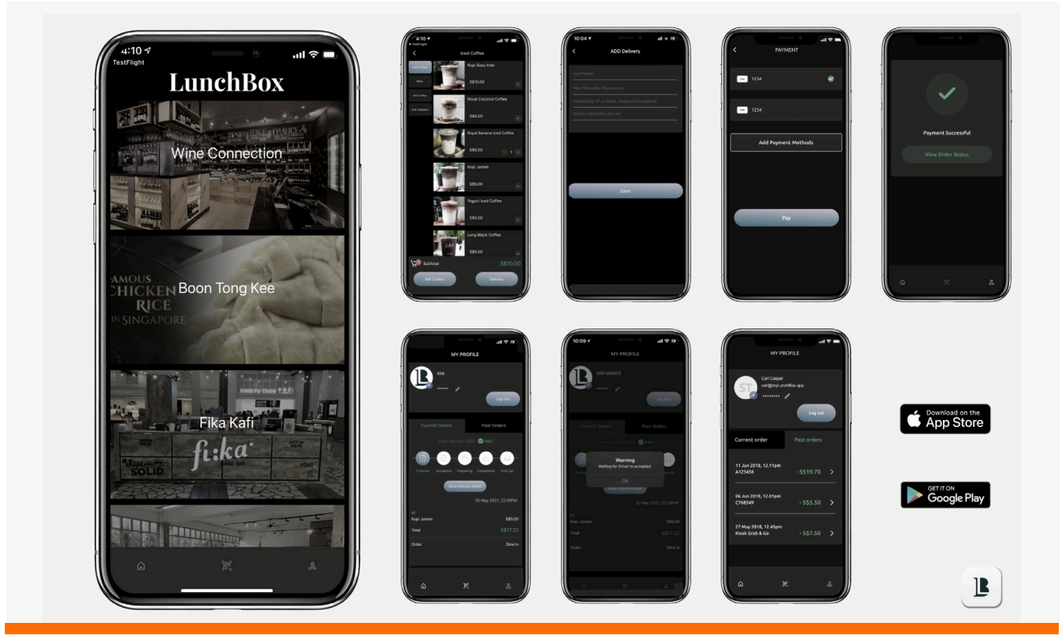
Yes. The platform helps businesses understand transactions, item flow, customers, and even cross-promotional/cross-selling information. For example, if a company realizes customers buying cola also buy fries, they can see this and push fries with cola purchases. It crafts what they sell, how they sell, and when they sell.

If you wanted to sum up the purpose of a POS system in three words, what would you say?

Clarity, effectiveness, and intelligence.

What are the underlying elements that support and enable the advantages you mentioned?

As a POS, we are dealing with information and data, so it is very important to have a reliable cloud partner. Alibaba Cloud was very easy to use compared to other cloud solutions we tried, but the deciding factor for us was the support. The support was amazing. They (Alibaba Cloud) were always there, always on time, and more, helping/giving us advice on how to make it more effective. Imagine you are a cashier, and everything is time sensitive. There are 50 people in the queue in front of you during a busy lunch. You cannot say, "Hey, please hold for support. Our team will get back to you in three working days." That cannot happen. Alibaba Cloud is always available for immediate help. Even though we are a small startup, they (Alibaba Cloud) still helped us, and we hope to grow long-term with them (Alibaba Cloud).



We are so glad to hear this! Would you go a bit deeper into what role the cloud plays in innovation at LunchBox?

One of the major requirements of LunchBox is to host its data in a secure, robust, scalable, and reliable environment. Also, we need a scalable and secure database solution that allows concurrent access and provides secure data encryption. LunchBox leveraged on Alibaba Cloud's comprehensive set of services to fulfill its cloud hosting needs and improve the overall performance of our POS solution, including Alibaba Cloud's extensive global node network to build fast and stable network connections worldwide, Alibaba Cloud's fully hosted online database services to improve service availability, and the cloud-based security services to protect data from malicious cyberattacks.

Your company has just passed 13 months of operation (happy anniversary again). Let's discuss future plans. Where do you see LunchBox in 3-5 years? What is your ultimate goal?

Well, I think LunchBox is only scratching the surface of what we can do versus what we hope to do. In the short term, we plan to constantly improve our solution and expand the number of tools we have available for F&B. In the long term, we would love to become the default operating solution for restaurants. Anytime a new restaurant starts, they think – *LunchBox*. True story! Recently, a client came to us and was overwhelmed and thinking of giving up, but after using LunchBox, we could see a smile on his face. All his repetitive issues were gone, and he could focus on his food and other important aspects of his business. It was a heartwarming moment for us, and we would like to give that convenience to the rest of the (F&B) industry regardless of how big or small the business is. To sum everything up in one sentence – We aspire to be the tool to help businesses grow into bigger establishments.

As we wrap up, what do you want people to know about LunchBox overall?

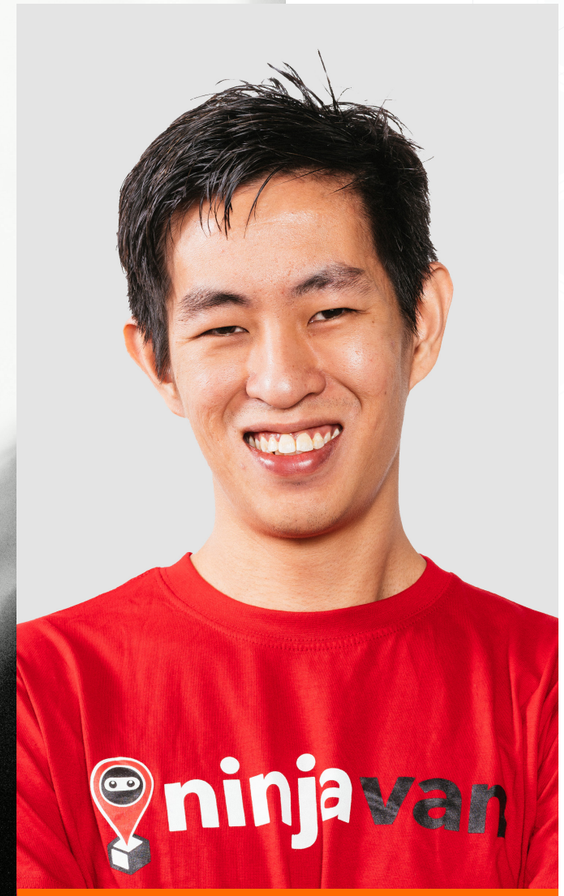
The ultimate goal we want people to know is that we can give any F&B establishment the capabilities of an international fast-food chain at a fraction of the price. It (LunchBox) is simple and easy to use and will truly help them with business.

09

ninjavan

ENABLED BY DIGITAL INNOVATION, A CONVENIENT LOGISTICS SERVICE IS ONLY A CLICK AWAY

Launched in 2014 in Singapore, Ninja Van was one of the first logistics companies in Southeast Asia to provide real-time tracking updates. During the initial years, it was the only international shipping provider that offered a high level of visibility across the delivery journey. Ninja Van took advantage of this by disrupting the traditional delivery model, using technology to provide greater visibility over the entire parcel delivery journey and optimize delivery routes. The latter allowed drivers to save time and fuel while delivering purchases to their destinations on time. According to **Boxian Tan (Co-Founder and Chief Product Officer of Ninja Van Group),** the company exists to revolutionize logistics through technology-enabled delivery systems in the SEA region. Harnessing cutting-edge technology solutions and in-depth knowledge of e-commerce empower Ninja Van to ensure hassle-free logistics for its business partners and consumers.



Boxian Tan

Co-Founder and Chief Product Officer of Ninja Van Group

When did Ninja Van launch its business?

Ninja Van launched in 2014 in Singapore and was one of the first logistics companies in Southeast Asia to provide real-time tracking updates. At that time, only international shipping providers offered that level of visibility. Ninja Van decided to take advantage of this by disrupting the traditional delivery model, using technology to not only give greater visibility over the entire parcel delivery journey but also optimize delivery routes. The latter allowed our drivers to save both time and fuel while getting online purchases to their destinations on time.

Which country did Ninja Van operate in first? What difficulties did Ninja Van face when expanding across multiple countries?

Ninja Van first started in Singapore before expanding to Malaysia, Indonesia, Vietnam, Thailand, and the Philippines.

One of the initial challenges faced was matching the addresses provided with the destination locations where parcels would ultimately be delivered to. Even with solid tech infrastructure and agile systems that can be optimized to accommodate business needs, there was no reliable technique for postal code determination. For example, in Singapore, postal codes are used to locate addresses. In Vietnam, specific addresses are rendered with a string of words, but postal codes are somewhat nonexistent. An example of directions would be, *"turn right at the building with the red door, take a left turn, and walk until you see the house with the blue windows under the big tree."*

Our challenge was to build a customized system based on the latitude-longitude system that catered to each different market. These fixed coordinates meant our delivery drivers would be able to navigate with more accuracy with each delivery made, with the system being able to take in feedback to make it easier for subsequent delivery personnel to navigate using the same routes.

The big leaps we made in terms of scaling up systems made us the first in Southeast Asia to adopt a microservices architecture. It took a lot of time, but now, we have the ability to quickly change parts of our system without affecting too much of the rest, giving us a lot of flexibility in how we adapt and scale the business.

The pandemic has boosted online shopping. How has NinjaChat benefitted Ninja Van and its customers?

The COVID-19 pandemic led to a drastic shift in consumer habits within a short period, as government-enforced lockdowns forced consumers to buy more online and subsequently demand greater visibility throughout their parcel delivery journey. We launched NinjaChat in September 2020 to meet this market need.

NinjaChat is an AI-powered system that allows users to manage their orders or chat directly with the Ninja Van Team through their preferred social messaging platforms (such as Facebook Messenger, Telegram, Line, or Zalo). There is no need to download a third-party app. Users can chat directly with the Ninja Van Team to get quick responses and swift resolutions to their issues in a less intrusive manner. Its contactless delivery option (ATL SNS) also allows customers to purchase goods with ease of mind and provide customers with real-time updates, helping us align on expectations resulting in greater retention, stickiness, and loyalty.

Describe the issues of running an international logistics company and NinjaChat (A chat app). How has Alibaba Cloud relieved those issues?

As Southeast Asia's leading tech-enabled express logistics company, we recognize the role we play in meeting customers' technology needs. We work with several cloud-service providers (including Alibaba Cloud) to complement our enterprise network and ensure the consistency, reliability, and security of our data.

Working this way enables our team to scale up or down according to business demands and work flexibly and more efficiently. It also minimizes the risks associated with in-house operational issues and maintenance that often come with higher costs and downtime.

SEPHORA

ACCELERATING CONTINUOUS INNOVATION FOR SEAMLESS ONLINE SHOPPING EXPERIENCE

Established in France over 50 years ago, Sephora is a leading cosmetic retailer offering an elaborate range of beauty and makeup products globally. Sephora recently made inroads into the Chinese market across 89 cities and 321 stores in Mainland China, catering to over a million consumers in the region. As a pioneer in the space, Sephora has partnered with many illustrious and niche brands in the region to diversify its offerings via an extensive vast omnichannel partnership network. Managing the vast supplier network demands systematic optimization to ensure cost-effectiveness, efficiency, and flexibility in the process to meet the dynamic demands of the market. Sephora realized the need to shift from its traditional business model towards a digital overhaul to optimize its extensive partnership and alliances network and manage its expansion into the Chinese market.

> “In such a rapidly growing market in Mainland China, people always think about how to stabilize the underlying system to support their core businesses. However, this was a thinking pattern five years ago. Now, we need to leverage the strengths of cloud computing to meet the needs of our customers and daily operations.”
>
> ***- Zhang Shijie, Chief Information Officer (CIO) of Sephora China***

Transitioning Towards Agile Operations Hosted on the Cloud

As part of the transformation, Sephora wanted to gain a comprehensive and consolidated overview of operations to analyze product performance and chart strategies in real time for a quick go-to-market. Further, the management wanted to stay on top of vulnerabilities and adapt to dynamic market changes, underpinned by a robust infrastructure facilitating real-time decision-making with in-depth data analyses generated on the fly.

Sephora, China officially launched its digitalization 2.0 project in partnership with Alibaba Cloud and Accenture in Mar 2021 to leverage the benefits from cloud nativity and drive improved opportunities for its enterprise. **Powered by cutting-edge cloud infrastructure, Sephora, China implemented cross-region disaster recovery in three months, ensured 24x7 business availability, and optimized its disaster recovery capabilities.**

Alibaba Cloud and Accenture provided a range of cloud computing solutions and services to help Sephora enhance the shopping experience.

- Alibaba Cloud Elastic Compute Service (ECS) offers high-performance, stable, reliable, and scalable computing capabilities on the cloud. **ECS eliminates the need to invest in hardware up front and helps create as many (or as few) instances as necessary based on business requirements, making it more convenient and efficient over physical servers.**
- Alibaba Cloud Server Load Balancer (SLB) distributes network traffic to a host of backend servers to increase the throughput of applications. **With the SLB, organizations can leverage uninterrupted service operations caused by single points of failure (SPOFs) and significantly improve application availability.**
- Alibaba Cloud Object Storage Service (OSS) is a secure, scalable, and highly reliable cloud storage service that allows enterprises to store and access data from anywhere. **Alibaba Cloud OSS is designed to provide 99.9999999999% data reliability and 99.995% data availability for zone redundant data storage and is the foundation for the Alibaba Cloud e-commerce solution.**
- ApsaraDB RDS **is an advanced, functionally-rich online database service built on top of the Apsara Distributed File System and high-performance SSDs of Alibaba Cloud.** ApsaraDB RDS supports the MySQL, SQL Server, PostgreSQL, and MariaDB TX database engines and offers a portfolio of disaster recovery, backup, restoration, monitoring, and migration solutions to facilitate database O&M.
- Auto Scaling is a service that automatically adjusts elastic computing resources based on service request volumes and business requirements. It automatically adds and deducts ECS instances when business loads increase and decrease. Auto Scaling is suitable for applications with fluctuating or unstable business loads.
- Cross-region disaster recovery **allows organizations to deploy primary and disaster recovery systems across different regions of Alibaba Cloud.** When the primary system encounters a failure, the business switches to the disaster recovery system with a stable uptime and recovery point objectives (RPOs) of as low as one minute and recovery time objectives (RTOs) of as low as 15 minutes. Cross-region disaster recovery guarantees uninterrupted business continuity and effectively avoids system failures caused by regional disasters.

By the end of November 2021, Sephora had successfully migrated key operations from its traditional data center to the cloud, reaching a significant milestone in the digitization project.

The Alibaba Cloud - Sephora partnership resulted in the smooth migration of Sephora's core business systems to the cloud, ensuring complete data security and 360-degree business continuity. With Alibaba Cloud's flexible pricing models and extensive cloud computing capabilities, Sephora China reaped benefits on two major fronts: the first ranging from **on-demand usage and pay-as-you-go billing** and the second **fostering continuous innovation and delivery equipped with high elasticity and scalability on the cloud.** Sephora, China was also able to realize its goals of expansion into Mainland China and smoothly handle increased volumes of service requests with low latencies for its e-commerce business, supported by Alibaba Cloud.

Looking to the Future

Alibaba Cloud is uniquely positioned to help Sephora realize continuous innovation by enabling intelligent services and a seamless online shopping experience powered by stable, secure, and customized cloud solutions.

VISION
VISION TO REALITY

TURNING VISIONS INTO REALITY

Established in 2018, VisionGroup is a leading Singapore-based technology company that offers innovation-as-a-service (IaaS) solutions to its clients across the globe. The company is committed to accelerating the adoption of impactful technology (Artificial Intelligence, Blockchain, and Cyber Security) across government institutions, startups, large-scale enterprises, and the broader society by making it humanistic, faster, and more efficient. Leveraging its deep domain knowledge, robust partner ecosystem, and strong team expertise, VisionGroup delivers cutting-edge technology solutions to clients across the e-commerce, finance, real estate, and e-government sector to transform their vision into reality. **Hui Jie Lim (Founder and CEO of VisionGroup)** has provided some riveting insights into how his company and strategic partners (like Alibaba Cloud) are leveraging future-proof technologies for the betterment of its people, customers, and society during an exclusive interview with Alibaba Cloud.

Hui Jie Lim
Founder and CEO of VisionGroup

When did VisionGroup launch its business? Why?

We founded VisionGroup in April 2018, roughly 4-5 years ago. One thing I always look at is specific tech or specific tech that will impact businesses. I always ask myself, *"What are technologies that will impact businesses moving forward, especially companies within the space?"* After looking around, areas I saw that would be *really huge* were (related to) data. Something like 90% of the world's data was created over the last three years! Imagine how much data will be created over the next 5-10 years! Then, the next question I asked was, *"What would have a huge impact on data?"* After looking around, I identified that **blockchain** would have a huge impact on data. In my view, blockchain will be (for data) what the Internet has been for information. When we started VisionGroup in 2018, we thought from a data explosion perspective and areas we could impact, so we started with blockchain. At that time, many companies were looking into it (blockchain), still trying to figure it out. At the same, other companies were looking into cryptocurrency, but we felt blockchain could change the world – if we could implement it in real-world applications in the enterprise space.

Interestingly, you touched on blockchain, as it's one of the questions further down on my list, so let's talk about it right now. How would you explain it in the simplest terms?

If a child played with *blocks*, each block is *basically a set of data*. The fundamental reason why it's called blockchain – imagine if you take multiple blocks together, it forms a chain. Now, essentially, you can't remove the center block because it would break the chain. Breaking the chain would disrupt the flow of data. If we visualize it as multiple blocks and link the last data with the first data, this is the first *so-called* data set. Then, you have the benefits of making the data permanent, primarily because you can break the chain. If you share the chain with multiple groups of people, everyone will have the same data set and ensure data trust is being kept.

Along with that, as you've said, blockchain is connected to data trust and cybersecurity. The second part of the question – what would you say are some common misconceptions about blockchain?

One of the most common misconceptions about blockchain is linking blockchain to cryptocurrency. Blockchain was brought to fame primarily because of its use cases related to cryptocurrency, but blockchain is more of a concept/technology that can be utilized in many more real-world applications (outside of cryptocurrency). The key benefits of blockchain are:

- **Immutability**
  Where data can be made permanent.
- **Areas of Provenance/Traceability**
  Where data can be tracked.
- **Areas of Interoperability**
  Where multiple parties can share data and work together with a common data set.
- **Areas of Automation/Smart Contracts**
  what you use/what you did and being able to be distributed and move away from a middleman.

These things will revolutionize how we operate in the technology space, the public sector, and the private sector, regarding how we operate our systems and operate together. Apart from that, any use cases that deal with removing the middleman, audit, and permanent transfer of data would benefit in this space. This includes the financial space (they can have trust in terms of identifying information), the logistics/supply chain space (they can track where things come from), or spaces of automation (where we can remove the middleman). These three (industries) could feature the highest levels of adoption in the nearer term.

We've talked about misconceptions, and you've started alluding to the next question in your previous answer. What are the aims, objectives, or overall outlook of VisionGroup?

VisionGroup believes in two main things: **our vision** and **our philosophy**. Our vision on – *how do we use technology for the betterment of humanity?* We think about that from multiple aspects: *whether to make it safer, more transparent, or more efficient*. The main issue with technology today is – you might have the best technology out there, but if no one uses it, it becomes the *best-kept secret.* I could use *Lord of the Rings* as an analogy – J.R.R. Tolkien writes a fantastic book (in 1954), but it isn't known (worldwide) until many years later. Having great technology is *great*, but more importantly, if more people can use it – *that is even better*. VisionGroup looks at how to use technology for the betterment of humanity, how we can make complex things simpler, and how we can help the world adopt it.

We've already discussed the *best-kept secret for the people (humankind).* VisionGroup is multifaceted. Could you highlight some of the products/services VisionGroup offers or things you want readers to know most about VisionGroup?

VisionGroup is multifaceted yet our focus is mainly in the commerce, finance, and e-government spaces. Commerce includes e-commerce, supply chain, and logistics. Finance includes banking, insurance, and financial institutions. The e-government space is the public sector. Our products break down into three key areas: cybersecurity, productivity, and e-business. Security includes our *vision protocol* and how we ensure there is a blockchain that benefits from transparency, security, and efficiency from a secured standpoint. From a productivity standpoint, it is more about how we ensure automation. We can make people's lives easier by taking ten steps and reducing them to five steps. In the e-business space, we look at e-commerce or areas of our *digital asset suite* where we use blockchain technology to help businesses enhance their business through commerce or an outreach model, allowing them to supercharge their sales. Then, when it comes to ESG – environment, social, and governance – are you *really* saving or living up to your carbon emissions or food waste claims? Are you logging it into a specific ledger that is immutable and unchangeable? Can different organizations contribute to it? Can they confirm it is legitimate (rather than claiming it and only changing percentages in excel sheets as evidence)? When we utilize blockchain technology, we look at how we can track ESG initiatives (historical, plans, and what you can achieve). We look into (and promote) how to enable near-facility purchases, thereby reducing carbon footprint and carbon emissions. We will also be looking into how we can value add through a supply chain perspective. We will use traceability on blockchain to verify if the expensive wine or organic food you purchased has come from where it claims.

As you said, VisionGroup focuses on accelerating the adoption of cutting-edge technologies by making them simpler, faster, and more efficient. How did you apply cloud computing to ensure robust business growth, security, agility, and flexibility of your innovative blockchain services to your users?

When we were first introduced to Alibaba Cloud, we had the misconception that Alibaba Cloud is more focused on China. After learning more about Alibaba Cloud (especially the leaps and bounds in its technology and the direction they have set in terms of being able to grow), we opened our minds and thought this (Alibaba Cloud) was something we could explore. Alibaba Cloud is very much like VisionGroup. Our goals of turning visions into reality and how we are always pushing forward with the latest technology to make things different (were congruent with Alibaba Cloud). This showed us that Alibaba Cloud has a vision for the future. Alibaba Cloud has a vision of ensuring ways to scale up industry infrastructure and offer the support required for them to cater to enterprises of all sizes.

After we understood the roadmap Alibaba Cloud laid out and the amount of traction it received, we looked more into the products and services. We used Elastic Compute Service (ECS) to power the blockchain solution on-demand elastically, and Object Storage Service (OSS) helped store and retrieve data objects securely and efficiently. VisionGroup also benefitted from Alibaba Cloud's Function Compute (FC) and Container Service for Kubernetes (ACK) offering, allowing us to build our cloud-native capabilities quickly and conveniently. Also, we noticed a **10-20% reduction in TCO** after hosting our blockchain solutions on Alibaba Cloud.

Our team deployed Alibaba Cloud Key Management Service (KMS) to protect VisionGroup's blockchain service from cyber-attacks by encrypting and protecting sensitive data assets. VisionGroup also took advantage of the free-tier Anti-DDoS service and multiple other cost-efficient security solutions to safeguard our data.

After trying and using Alibaba Cloud's infrastructure, hosting, storage, and various value-added services, one decisive factor was the team and support given to us. VisionGroup has worked with other providers but received a lot more support from Alibaba Cloud. We called Alibaba Cloud on Friday at 10-11 PM when we had a massive rollout Saturday morning. We were facing a very specific issue, and they still responded to us. I think a lot of other major players would not be capable of supporting us in such a short time, deep-diving and collaborating to resolve the problem. Whether it is a weekend, the wee hours of the night, or a public holiday, the support is always there with a prompt response. Also, Alibaba Cloud has invested time in a lot of local data centers, which is important for us. Primarily, in the financial sector/financial institutions we are a part of, it is required (from a regulatory perspective) to store data within the local jurisdiction (where the local financial institution exists). Alibaba Cloud's local data centers have really assisted us with local compliance regulations. The team support, the roadmap, and the vision for the technology stack got us started and more importantly, is what has VisionGroup staying with Alibaba Cloud moving forward.

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WEMART 温超

MODERNIZING O2O RETAIL OPERATIONS WITH AI AND CLOUD TECHNOLOGY

Established in 2016, WEMART is one of the most popular Asian supermarket chains in the Middle East. WEMART is well-known for being a customer-first, socially responsible, and digital-savvy hypermarket store. The retail giant provides a wide range of affordable, high-quality grocery products and 24/7 convenient online services. As a large retail establishment, WEMART works closely with businesses across six industries (including retail, logistics, farm, e-commerce, culture, and trade) to provide best-in-class products and services to Chinese and Asian customers in the United Arab Emirates.

WEMART is committed to investing in next-gen technologies (such as cloud and AI) to modernize its retail operations and match customer expectations. During an exclusive interview with Alibaba Cloud, **Sun Jiansheng (Chairman of Wenchao Group - the parent company of WEMART)** provided insights into how they leveraged Alibaba Cloud's new retail solutions to integrate their online and offline business capabilities for a competitive edge.

Sun Jingsong
Director of O2O Platform Business, Wenchao Group

When did WEMART launch its business? Why?

In 2016, WEMART was launched as an online mall by the newly-established WenChao Group. However, WEMART's origins go back to a decade ago when Dubai's first **WenChao (Wenzhou Supermarket)** opened in China Trade City, Deira. WEMART has been going from strength to strength thanks to its growing reputation as a *customer-first* brand. Speaking of, I think WEMART is a creature of our era. It is riding high on the wave of *new retail*. After the COVID-19 pandemic began in 2020, WEMART took it upon itself to provide daily necessities for the considerable Chinese population in the UAE. Pulling together with customers through the tough times helped WEMART further establish itself as a *socially responsible* brand.

What are the aims/ objectives of WEMART as a company? What are the unique localization characteristics of operating in the local market of the Middle East?

WEMART has been striving to become the No. 1 retail brand in the Middle East. To achieve that, we will deepen our bond with our customers, to whom, as our core values put it, we owe *everything.*

The Middle East is a challenging market for WEMART and the retail industry as a whole. The extreme desert climate makes it particularly hard to keep food fresh. Locals prefer to pay on delivery, as opposed to routine e-commerce practices. Also, the UAE's multi-national demography does not make retailing any easier. WEMART has domesticated its operations in the following ways to cope with these characteristics:

First, to keep food fresh under the UAE's extreme climate conditions, WEMART opened a *green farm* in 2019, which produces up to 40 kinds of organic fresh vegetables in strict accordance with online and offline quality standards. By *organic*, I mean the farm adopts sustainable agricultural technology and follows the law of nature and ecological principles.

Second, WEMART is developing global supply chains and intelligent warehouses all at once to meet the different needs of Middle Eastern countries.

The COVID-19 pandemic affected everyone but affected brick-and-mortar stores particularly hard. Describe the major shift in running a brick-and-mortar supermarket pre-pandemic, during the pandemic, and post-pandemic.

Orders surged during the Dubai lockdown in the early days of the pandemic. WEMART came to the rescue of Chinese and other Asians living in the UAE. We promptly adjusted our warehousing strategy, streamlined our supply chains, and re-staffed our delivery team, to help put food on their tables.

The pandemic also spurred WEMART's upgrade from business-to-consumer (B2C) to online-to-offline (O2O). Online-to-offline retailing makes it easier to access services, contact sellers, and place orders.

It is worth noting that Alibaba offered a lot of practical solutions and suggestions during our system upgrade, which helped us weather the pandemic and achieve transformation success.

What roles did cloud computing and other digital technologies play in WEMART's business transformation and upgrade?

WEMART's digitization went in three steps:

- **Step One:** Evaluate strategies and investment portfolios, set out the cloud computing strategy, evaluate application portfolios, and determine the desired deployment
- **Step Two:** Plan and implement the cloud migration and system upgrade
- **Step Three:** Operate and improve the O2O retail business

Cloud computing is less complex than it sounds. Its infrastructure is also less problematic than other alternatives. WEMART's business can fully run on cloud computing servers and is powered by more complete applications and more stable database servers. Our cloud service provider will start looking for solutions as soon as an error is identified.

Did WEMART's migration to Alibaba Cloud have the desired effect? Can you give me one or two examples? Which Alibaba Cloud products/services are the most effective for WEMART?

Since it migrated to Alibaba Cloud, WEMART has been powered by EB-level data storage and analysis as well as distributed deployment and monitoring of up to 10,000 tasks at a time. Now, WEMART has an IP address and multiple bandwidths at its disposal. WEMART is in a better position to build its website by leveraging the various resources that a dedicated server has to offer. The wide coverage of Alibaba Cloud servers is a plus for a pan-Asian supermarket chain like WEMART in terms of security and stability. A cloud server supports distributed storage and cloud images and provides the storage of four replicas of data to ensure data security. Cloud services can be flexibly upgraded and reconfigured. Users can reset the server password online, connect multiple types of networks, and choose custom installation as needed. In addition, cloud services are affordable and sustainable. They can handle traffic spikes during flash sales and major promotions. Under the tiered billing model, the longer the service is used, the lower the average costs.

A cloud server is like a virtual host. It enhances usage security by clustering machines. A cloud server is easier and more flexible for WEMART to use. We can conveniently and efficiently access its superb computing power by connecting to the data center. WEMART can easily build an IT architecture to meet different levels of needs by integrating the server with other cloud resources.

With Alibaba Cloud, WEMART can move forward with indigenous R&D, build a leading data intelligence platform, and improve its business ecosystem.

What kind of opportunities will be available to large supermarket chains in the post-pandemic era? How will the future look?

One of the reasons why supermarkets are still going strong in the post-pandemic era is that they cater to the rigid demands of the public. Another reason is the high frequency. Only supermarkets can kill two birds with one stone. After coronavirus controls came into effect, people stayed at home longer and journeyed out of their neighborhoods less. This was coupled with their growing reliance on **Internet shopping** and **community group buying**.

Over the past few years, e-commerce and proximity-based services have taken off across the Chinese retail market.

Currently, online and offline integration and omnichannel have become commonplace for retailers of all sizes in China. O2O will enter a new phase of development in the post-pandemic period. The growing prevalence of O2O suggests that omnichannel retailing will be the future. Community-based fresh food e-commerce also has great potential. In China, community-based fresh food retailing has been a roller coaster ride over the past decade, drawing constant attention from the capital market. The rise of O2O platforms and *new retail* companies will help reshape fresh food purchases and services. Another trend is the integration of O2O with different retail ecosystems. As Asian retailers are gradually extending their supply chains to the rest of the world, an important time for operational remodeling has arrived. **E-commerce and brick-and-mortar stores will work together in the coming years to bring in the omnichannel retailing era defined by new retail and O2O.**