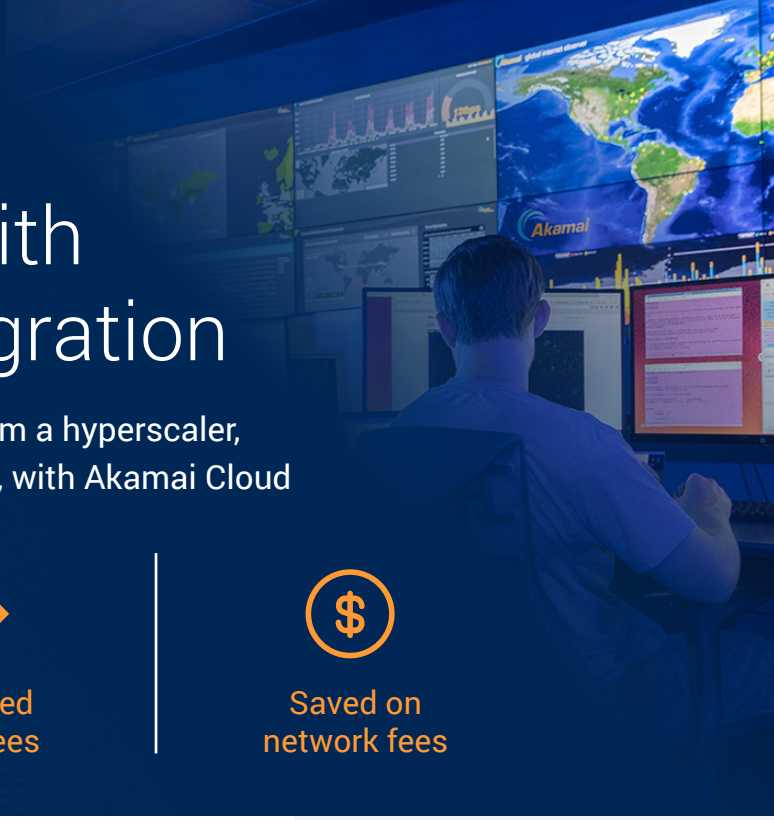
Akamai Customer Story

IRIAM Cut Costs with Strategic Cloud Migration

The Japanese company quickly migrated from a hyperscaler, and reduced infrastructure and egress costs, with Akamai Cloud



Migrated without disruption

Eliminated egress fees

Saved on network fees

Empowering users to be VTubers

IRIAM Co., Ltd. provides the V Live communication app IRIAM, which allows users to conduct community-based live streaming with just one smartphone. As of the end of December 2024, the app had exceeded 4.25 million downloads and annual sales of 8 billion yen, making it a popular app in the expanding VTuber market.

By migrating its distribution server to Akamai cloud computing services, IRIAM achieved dramatic cost reductions. In addition to reducing outbound communication costs (egress costs) to almost zero, the company cut overall distribution server costs, including egress costs as a percentage of overall infrastructure costs, to one-third to less than one-tenth of what they were before. There have been no problems since the server migration, and it has contributed greatly to the growth of the business.

Enabling live streaming with minimal lag

The biggest feature of IRIAM's distribution is that, unlike the traditional "media type" consisting of up to tens of thousands of viewers, it is a "community type" where the live streamer and listeners are deeply involved. In order to realize a distribution that feels like a face-to-face conversation, the company is focusing on establishing a highly real-time communication environment.

IRIAM

Location

Tokyo, Japan
live.iriam.com

Industry

Media and Entertainment

Solution

Cloud Computing

Akamai

“Minimizing communication lags in exchanges such as gifts and comments is an important mission for us. If it takes more than one second to reply to a comment, it will no longer provide an experience that feels like a live conversation, so with IRIAM we aim to reduce the lag to 0.1 seconds,” said Hayashi Ohtake of the Product Development Department.

To achieve a lag-free environment, the company has independently developed a communication method called the Motion Live method. Ginokent of the Product Development Department explained: “Motion Live is a technology that does not exchange video data, but rather exchanges only data such as the live streamer’s facial expressions, which are then compiled into video on the smartphone. This significantly reduces the amount of data sent and received, providing a highly real-time communication environment.”

This technology has been implemented since the service began, but as the business grew, the company began to face several challenges.

Outbound transfer fees account for over one-third of infrastructure costs

Takumi Ihaya of the Product Development Department said that as the service expanded, “network costs became our biggest issue.”

“When building a distribution service using a hyperscaler, the egress costs incurred in outbound communications tend to account for a high proportion of overall infrastructure costs. At IRIAM, as of December 2023, network costs accounted for more than one-third of infrastructure costs. Even though the Motion Live method had significantly reduced data traffic, network costs continued to dominate,” said Ihaya.

IRIAM has fully adopted hyperscaler clouds since the start of its services. For example, it has used services such as managed Kubernetes, serverless container execution environments, and managed RDBMS from cloud providers for the IRIAM app’s application servers, related schedule processing, and database processing. The problematic network costs were caused by outbound communications from the virtual machine (VM) used as a distribution server.

“The distribution server distributes audio and motion data to users. It runs on a virtual machine, with each server configured to accommodate multiple distributions. The distribution server was scaled in and out according to the overall number of distributions for the service to improve utilization efficiency. However, as the number of users and distributions increased with the growth of the service, outbound communication increased proportionately,” said Ohtake.

Migrating hyperscaler virtual machines to Akamai Cloud to reduce costs

Due to these circumstances, he had been thinking that the problem of network costs was something that “we had no choice but to give up.” However, Akamai Cloud completely changed that perception.

“I knew that Linode (now Akamai cloud computing services) offered a VPS (virtual private server) service, but when Akamai launched its cloud service, I took another look at the services they offered. I realized that they could be the perfect solution to the issues we were facing. What was particularly attractive was their unique pricing structure, in which the network usage fee is included in the server instance usage fee,” said Ihaya.

For example, a Linode server instance with 2 CPUs and 4 GB memory is provided with 4 TB of network transfer charges for free. In addition, if you exceed the free limit, additional network transfer charges are provided at $0.005 per GB, which is an exceptional price setting that can reduce egress costs by more than 90% compared to hyperscalers.

“When we did the calculations, we found that we could dramatically reduce network costs just by replacing the virtual machines running our distribution servers with virtual machines from Akamai. We keep our monthly outbound communication for one distribution server to within 4 TB, which could be covered by the free quota provided with the entry-level Linode 4 GB. That meant we could essentially operate with no outbound fees,” said Ohtake.

Migrating without disruption

Another major benefit was that IRIAM could switch just the distribution server without disrupting the existing architecture.

Originally, the distribution server was configured with containers using Kubernetes, but it was switched to a VM-based system around 2020. Switching to a virtual server-based system simplified the mechanism, making it possible to switch only the distribution server to Akamai Cloud without changing the basic structure of the system at all.

“We changed to virtual machines to flexibly manage the number of distribution servers using our own logic, and thanks to that we were able to migrate without changing our existing configuration. Akamai cloud computing services make it possible to deploy and stop virtual machine images of distribution servers using an API. VPS and other systems tend to have weak API support, but Akamai cloud computing services fully support management using APIs. We were able to deploy distribution servers in a new environment while maintaining our existing distribution server management system, making the migration easy,” explained Ginokent.

Reduced costs by tens of millions of yen while maintaining real-time performance

The migration was completed within two months. “My impression is that there was almost no actual workload during the two months leading up to the migration. However, the system switchover did not actually go as planned. Just as we had completed operational checks in the development environment, a problem occurred on the hyperscaler cloud that was our production environment at the time. So we decided to bring forward the schedule and try the migration. Although the migration had to be carried out on short notice, once we actually made the switchover we were able to start operations without any issues, and it has been running stably to this day without any rollbacks,” said Ginokent.

“Until now, our cloud service network transfer volume was about 200 TB per month, and our usage fees were in the tens of millions of yen range. After migrating to Akamai cloud computing services, we were able to reduce the network transfer volume by tens of millions of yen. In fact, as our service has grown, our network transfer volume has increased to about 300 TB per month. We are able to cover this increase by using the free quota within our server instance without paying any additional network costs,” said Ihaya.

Future-ready and focused on innovation

IRIAM has realized dramatic cost reductions since migrating to the cloud. The network costs for the entire infrastructure have been reduced from one-third to almost zero, and the cost of the delivery servers themselves has been reduced by about 50%. In addition to cost reductions, IRIAM has achieved various other benefits.

“We monitor things like CPU, memory, and network usage, and they have remained stable. Plus, we’ve hardly observed any network transmission errors,” said Ohtake.

IRIAM launched its service in the United States in November 2024, but the company says that its high stability and reliability will continue to be utilized in global expansion.

“Internet quality can vary from region to region in the United States, but by using Akamai’s Chicago data center, we are able to provide stable, high-quality services. The extensive support and fast response times are also appealing. Combined with the ease of migration from hyperscalers, such as the extensive API, and the ease of global expansion, we believe that this will be a major asset for our future business development,” said Ginokent.

Akamai’s cloud infrastructure will continue to support IRIAM’s services, which provide a unique community experience.

IRIAM

IRIAM is an interactive VTuber platform. It’s designed exclusively for watching and interacting with VTubers’ live streams on mobile devices. IRIAM is the number one VTuber streaming app in Japan, which has been downloaded over 4 million times since 2018. About 10,000 VTubers stream on IRIAM every day in Japan. Find and enjoy communicating with VTubers, and join exciting new fan communities.

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