Power of the Public Cloud

MARKO DJUKIC, CEO AND FOUNDER OF HENTSŪ, REFLECTS ON THE ADVANTAGES OF THE PUBLIC CLOUD IN ASSET MANAGEMENT, THE ENHANCED SECURITY IT DELIVERS AND THE EVOLUTION OF DATA SCIENCE IT ENABLES

CTA Intelligence (CTA): What are the main advantages of public cloud computing?

Marko Djukic: (MD): The public cloud has a greater breadth of features than those available on-premise or in the private cloud, and these features are also able to evolve faster. This translates into higher business productivity and agility, and is reflected in the feedback from the market and the clients that we've onboarded. They've been coming to us for the features and flexibility around what they can consume.

Secondly, the public cloud offers advantages by shifting from a capital expenditure to more of an operating expenditure model. This "utility computing" is key to removing the need to sink a lot of cash upfront before even seeing any benefits. With public cloud computing, you consume as you need, as opposed to paying in advance or being hit with heavy capex refresh cycles.

Between the breadth of features and this utility model, we often hear from our clients that public cloud computing allows them to be overall more agile as a business and employ new approaches. They can rapidly try something, and if it does not work out as planned, it's not a problem to change or cancel; or ramp up if going well. This flexibility results in far less time and sunk cost losses. We also see the same agility during our onboarding of clients, and even those with sophisticated needs and a considerable volume of users, it's usually days/ weeks to get them going and not months.

Finally, security is another highly rated factor, and justifiably so in our market. But the reason we believe in the public cloud is that both the breadth and features available allow our clients to be more secure than on-premise or the legacy private cloud providers.

CTA: When meeting clients' needs, how bespoke can your offering be made?

MD: A key enabler to customising solutions for our clients is that the public cloud is code or API driven. There's no longer a necessity to physically plug in equipment or 'rack & stack' servers. We deal with our roll-outs and on-going management as scripted code, which helps us meet some rapid roll out targets. For this, we have predefined modules, but which we can also customise or augment to meet specific client requirements.

Using the infrastructure as code approach, we can also enable clients who have in-house technologists,

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>
> *Marko Djukic, Hentsū*

developers or quants, to have their own administrative access to cloud environments. They can now self-service themselves and remove the usual bottleneck of legacy managed service and private cloud providers. This puts control back into the hands of our clients, but they still have the benefit of our expertise and support of the overall technology stack.

CTA: How do you respond to clients' concerns about security in the public cloud?

MD: It's refreshing that clients are coming to us and requesting more security than the private cloud, and the public cloud can deliver this.

The auditing and security controls on the public cloud are very detailed, down to a granular level of specific actions and features. The other side-advantage of deploying everything through code is that it's auditable, and we can compare what the environment should be and what it is. We can track environment changes and highlight any manual deviations. This covers well all the reporting and auditing obligations of a client.

AWS, Google and Microsoft work to the highest common denominator. Encryption, auditing and other security features required by one niche or demanding client is by default made available to all their clients. An example is GDPR, which has been an issue for a few years, and earlier this year Microsoft rolled out GDPR functionality within their compliance manager. At a turn of a switch GDPR compliance was a non-issue for all our clients on the Microsoft cloud. An amazing benefit of the cloud is that you have that constant evolution of the quality and security for the entire client base.

CTA: How can you allay client fears about data leaks/breaches?

MD: This has come up several times with clients who have high sensitivities around their strategies and intellectual property (IP). What we can do better than the private cloud providers through the code and APIs is to lock ourselves out of the client data and still maintain the environment, support the client and keep the technology running. The client maintains the encryption keys; we can't see the data.

On the collaboration side, Microsoft and Office 365 offers extensive security controls of documents and sharing, while enabling user mobility and collaboration. This again does not have equivalent features on-premise or in the private cloud and is one of the huge productivity gains that our clients see as a primary driver for cloud adoption.
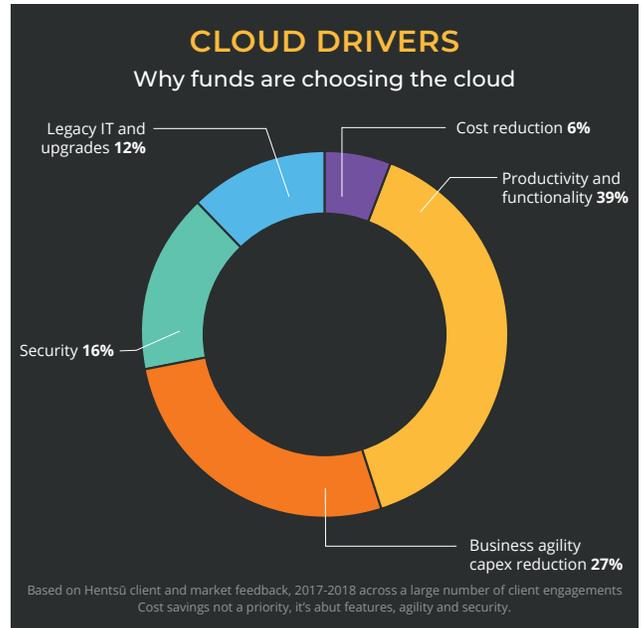
CTA: Where do you see the asset management industry going with public cloud adoption?

MD: We see a number of trends in the market, from the evolution of serverless computing to the growth of data and quant workloads across all strategies. The old proposition of delivering servers and infrastructure is dying and changing to delivering business value directly to our clients, and this is being rapidly enabled by the public cloud and the toolset it offers, as well as various software as a service (SaaS) propositions.

We are working more and more with clients who have heavy data and compute needs and we allow them to transition into more elastic methods of computing without being tied to servers at all. This serverless approach is all about executing the compute logic and getting back the results more efficiently, quicker and cheaper.

Off the back of this, we see growth in clients who traditionally have not used data or quant approaches and are now getting into this space. Data science no longer requires large upfront capital expenditures and there is more access to data than ever before. We have seen rapid demand for our data science offerings, where we can help our clients leverage the public cloud, grow the use of their data and the insights it can off er to their strategies.

The future is in the public cloud. It is evolving to become a more seamless platform which works across services, and it is also more data driven; this is why fund managers are rapidly taking it up.

CLOUD DRIVERS
Why funds are choosing the cloud

- Legacy IT and upgrades **12%**
- Cost reduction **6%**
- Productivity and functionality **39%**
- Security **16%**
- Business agility capex reduction **27%**

Based on Hentsū client and market feedback, 2017-2018 across a large number of client engagements
Cost savings not a priority, it's abut features, agility and security.

Marko Djukic founded Hentsū after over a decade's worth of experience in the Financial Services industry. Djukic's vision for Hentsū is to drive the transformation of asset managers with the adoption of the latest technologies.