Multi-Cloud Service Delivery

As I have been exploring the maturing environment of cloud services, I am regularly struck by the richness of the environments and the dramatic shift to “getting it done” with microservices, versus the legacy thinking of stack based development. There is much to dig into from an interoperability, scaling, global security model and more, but at present, the top three players in the space are offering a broad array of options that are sparking my thinking across a range of options and need spaces.

1. AWS (Amazon Web Services)
2. AZURE(Microsoft Cloud Services)
3. Google Cloud Functions

The next level of maturity is an established pattern for integration, that uses global security models to facilitate interop, with a common set of controls that sit on top and are referenced across all platforms and data stacks. Getting to the granular, element level in the data lake, secured by role and user is critical in the emerging privacy world. There is a clear need to have the capability to have a single world view of a person, or a resource across these platforms, abstracting the security model in a scalable way for both development and user engagement.

I am seeing articles pointing to this general thinking, but still not satisfied with a common “glue” or abstraction layer for these unified visions. I look forward to seeing this emerge, and being a part of that solution to the extent I am able.

GDPR – General Data Protection Regulation

The EU Regulations around data privacy and protection are emerging, and as they do, the initial rulings are in effect. The below excerpt from the EU site references what is considered personal data – and specifically that which has been anonymised, or otherwise obfuscated. Note that even if the data as it sits is non-identifiable, if it can be combined to become identifiable, it falls under the guidelines of the regulation.

> The principles of data protection should apply to any information concerning an identified or identifiable natural person. Personal data which have undergone pseudonymisation, **which could be attributed to a natural person by the use of additional information should be considered to be information on an identifiable natural person**. To determine whether a natural person is identifiable, account should be taken of all the means reasonably likely to be used, such as singling out, either by the controller or by another person to identify the natural person directly or indirectly. To ascertain whether means are reasonably likely to be used to identify the natural person, account should be taken of all objective factors, such as the costs of and the amount of time required for identification, taking into consideration the available technology at the time of the processing and technological developments.
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> The principles of data protection should therefore not apply to anonymous information, namely information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable. This Regulation does not therefore concern the processing of such anonymous information, including for statistical or research purposes.

This bit of the guideline is of particular interest to me, as part of what I see on a regular basis is the attempts to understand for each data related initiative my team undertakes, how to ascertain the potential impact of this regulation, and if it is applicable. This bit of text certainly makes it broadly applicable, and it seems good data hygiene is generally to make the assumption that any global system should plan to follow the general guidelines laid out by the regulations.

The somewhat complicating factor is that the regulations as of this writing are not in final form, and the penalties for non compliance are not trivial.

In my searching for more information on this topic, I came across a decent summary of the work – linked here. This site is not an official EU government site, but rather a vendor partnership education site. That being said, I think they do an admirable job of simplifying the regulation to language that the layperson can digest and use to better prepare for compliance.

Ref Links:

- Vendor site with summary: https://eugdpr.org/the-regulation/
- Text of regulation, as of this writing (In English): https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=EN
- EU site with Regulation and multi-language support: https://eur-lex.europa.eu/eli/reg/2016/679/oj