IS THIS THE MOMENT FOR DATA AS A SERVICE?

THE CONCEPT

Data as a Service (DaaS) is not a new concept, people have been liberally using the term for a number of years. However, the common problem is the lack of holistic consideration that is made in the interpretation of the term. If you do a quick search on the internet, you'll come up across a myriad of definitions and explanations without a great deal of consistency. This is because the term has been used to mean different things and latched onto by various software vendors with varying degrees of failure to make it mainstream, and often also missing the point. A quick search on analyst sites won't get you much further; so why should we care about the concept at all?

KEY CHARACTERISTICS OF DATA AS A SERVICE

In this paper we assume Data as a Service is broadly the capability to provide data in a timeliness, manner and structure that maximises the potential use and value creation of that data. Simply put, data is on tap for what you need when you need it.

So, what are the key characteristics of Data as a Service? Here are some of the characteristics that will have the most significant bearing on the success of Data as a Service

- Surface data as broadly as possible, maximise the enablement of systems to provide data.

- Standardise on the structure and meaning of data so it can be provided consistently with a parlance and nomenclature that is consistent with the organisation and broader industry

- Manage the mastery and quality of data

- Facilities to mask, make data anonymous or pseudonymise in a meaningful manner

- The provision of data is decoupled from the sources of data

- Data is delivered in the most timely manner possible with a strong bias towards event-driven approaches as that's how the world works

- Provide services that can provide aggregates and other functions on the data

- Data is provided in structures that are most consumable as a service for different consumption use-cases

REPLY
GLUE

- The full range of facilities are available to manage the lifecycle of data

- Expose data with standard protocols, APIs and languages that can be realised through introspection rather than development

- The provision supports the broadest range of technological approaches to minimise the barriers to consumption

- Enable all kinds of sharing including third party sharing

- Appropriate granular security controls that are simple to manage enabling data to stay secure

This is clearly not just a technological thing because technology will only get you so far on the journey, this is also about the organisational enablement to facilitate Data as a Service. You can successfully test the provision of data if a Data as a Service is well formed, and it is part of the supply side of data in an organisation and that is one building block.

DATA AS A SERVICE UNDERPINS DATA DEMOCRATISATION

Fundamentally, Data as a Service is/should be the key enabler for the democratisation of data, and that is a very important concept; in fact the two things are inextricably entwined. Data as a Service is the supply-side of Data Democratisation; I want to provide my data in a way that can be easily consumed, used and exploited to drive understanding, insight and value. The consume-side of Data democratisation is the tooling that enables data to be available to be consumed without having to be a technical expert or have to deeply understand data structures, APIs or indeed dimensions or fact tables – it is instead data for everyone. Data Democratisation is a form of enablement for data consumption and forms part of the demand side for data

WHY NOW?

There's probably nothing new under the sun about this, but the ability of organisations to realise this vision has significantly changed. And with the 2020s being touted as the 'Decade of Data' the focus on data will be unrelenting. Here are some of the changes that enable this –

REPLY
GLUE

- Cloud-based technologies which are providing the means to more easily realise this, because to realise DaaS you need the characteristics of a cloud platform including elasticity of capability

- Increasing convergence of the batch and event-based/real-time architecture worlds. This convergence started with tools theoretically supporting both worlds, and has matured with common recognition of the lambda architecture approach. One of the limiting factors historically was experts in analytics and insights leading rather than those who also understood event-driven architecture

- A pivotal point around the need for event-driven architecture to support digitisation and other digital goals. The advent of mature digital architectures, and particularly the Data Integration Hub concept realised the real-time capabilities that Data as a Service would need to provide unincumbered by batch or analytics thinking

- Realisation that to get ahead you need to get into the AI/ML game, and to get into that game you need data and lots of it -the more the better

- GDPR – whilst some organisations paid lip service to it in a 'least-compliant' approach, others really stepped up their data management capability, recognising the disciplines required. Similarly in industry-specific regulations, there has been pressure around data, for instance in financial services around anti-money laundering regulations

- The rise of the CDO and Data functions that have teeth and are not purely technology driven

- Modern organisational paradigms that take product-centric approaches and have shorter cycle times to value

- The many critical deployments of data across organizations needs a common understanding of data and increasing collaborative efforts that continue to develop data assets.

- We know that data will be at the forefront of new business opportunities, but it is impossible to anticipate all of these. Leveraging Data as a Service enables new exploitation of data to happen consistently.
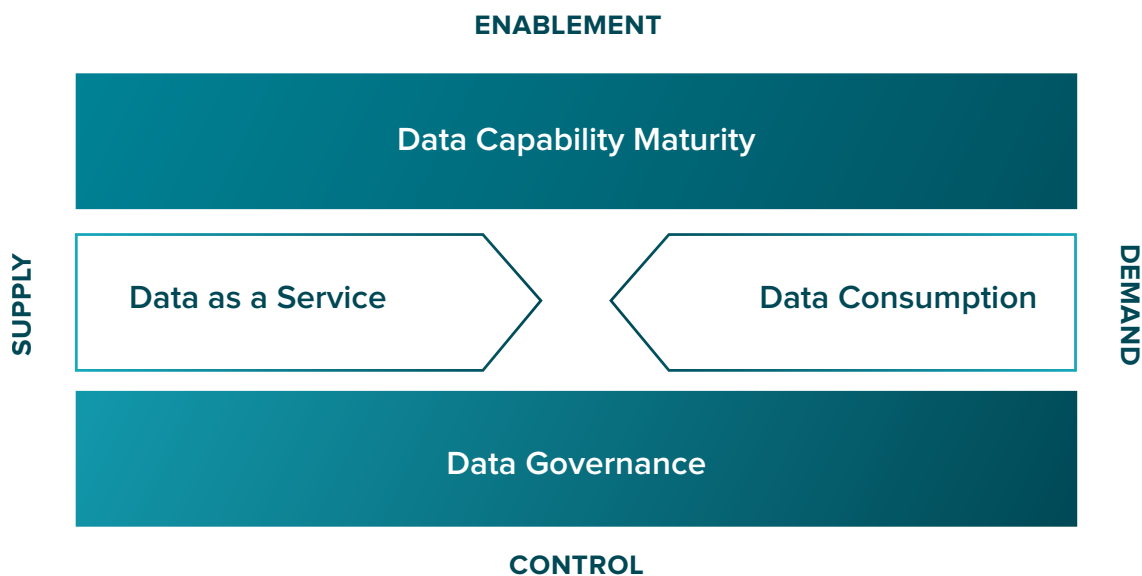
REPLY
GLUE

DATA DRIVEN

Ultimately there is now a great opportunity to realise Data as a Service - the time has never been better, and what's more as well as being part of Data Democratisation it is fundamentally also part of the great buzzword of the day — being Data Driven -

BEING DATA DRIVEN

ENABLEMENT

Data Capability Maturity	
Data as a Service	Data Consumption
Data Governance	

SUPPLY · DEMAND

CONTROL

Whilst being Data Driven is a buzzword, but it has a deep meaning behind it. It is taking the measured approach, having confidence in what you're doing - it's enabling and letting the data tell the story. It's also having quantitative perspectives as well as qualitative, it's being able to ask challenging questions and being able to get an answer. Of course, it is one key characteristic of an organisation, but it can also enable other characteristics, such as the ability to be innovative, the ability to measure the risks taken in a meaningful way and enabling significantly better customer insights.

At a macro level, you can challenge any organisation to say whether they would benefit from the characteristics of being data driven and almost all would absolutely want to be as part of their broader business strategy, and if presented with the case, and what it enables would be at the top level in most strategies.

The benefits of such a capability shouldn't be underestimated because it can help organisations both stand out in their industry, drive masses of business benefit through the unlocking of data and consequent insights and digitisation but also overall be better organisations for everyone not least including for employees.

THE JOURNEY

Data as a Service is part of a broader data capability maturity challenge. The challenge features the people, process and technology dimensions of course and it is how to chart the journey successfully. Some of the key elements of that journey are –

- Strong Data Leadership

- Strong business leadership (such as senior/board level commitment, ongoing funding, facilitate democratisation of data that supports new data-focussed roles and organization, making a data asset a focus for business strategy, consistent data exploitation across the business)

- Have clear ownership and accountability for data

- A technology architecture that is driven from an approach of providing Data as a Service and equally enabling Data Democratisation

- Taking a holistic view of Data as a capability, the data value chains and the supporting services

- Well defined and effective policies and procedures

- Investing in competency development

- Seeing data as an essential product within the organisation and continually investing, feeding and watering it and giving it an appropriate level of importance

REPLY
GLUE

- A strong engineering capability familiar with event-based integration and data technologies

- Technologies that can realise the Data as a Service capability to its fullest extent, relevant to the broader technology context of the organisation

The journey is different for every organisation because where they are and what they have already forms a key basis of the route. Of course, one way to look at it is current maturity, target maturity and the route map to the capability maturity level that is sought and what Data as a Service capability can be realised at each stage. There are numerous organisations who have fallen into the trap of attempting to run before they walk in this area, ultimately leading to failure.

WHY DATA AS A SERVICE AT ALL?

Data as a Service is the ultimate concept to aim for in the provision of data in organisations, all other ways are lower order ambitions and ultimately will not lead to being a data driven or data led organisation. It is both possible and feasible to realise the goal and the benefits from the goal will be game-changing for every organisation that realises it.

REPLY
GLUE

GLUE REPLY

Glue Reply is the Reply Group Company specialising in IT architecture, integration and data solutions that drive business value. Pragmatic in its approach, Glue Reply provides independent advice on the technology solutions that achieve clients' business objectives. Glue Reply's core proposition is to help organisations maximise the value from their business change and technology investments by helping them define, design, implement and resource best practice. Glue Reply works with many companies as a trusted advisor as well as being known for getting stuck into the nuts and bolts of any technical challenge to ensure the desired outcome. Glue Reply's solutions drive operational excellence whilst preparing clients for digital transformation, cost reduction and data exploitation.

For more information please contact us at glue@reply.com or call us on +44 (0) 20 7730 6000.