Data-as-a-service: the Next Step in the As-a-service Journey

Summary

Catalyst

The growing desire to seek competitive advantage from the use of data and the challenge of managing an increasingly complex and heterogeneous data landscape have created the right conditions for data-as-a-service (DaaS) to emerge. The debate over what format DaaS should take, who is positioned to provide it, and how it will evolve into a component of the as-a-service category is only just beginning. The ongoing consumerization of IT – an overarching trend affecting every aspect of IT use in the enterprise – is shifting user expectations; it represents the enablement of regular, non-expert users to effectively take control of often highly complex and traditionally inaccessible IT tools. DaaS is no exception to this trend and is a critical underlying capability that allows business users to focus on business outcomes rather than attempting to master IT.

Ovum view

We consider DaaS, and its packaging into business-specific solutions, as a natural and logical evolution of the as-a-service model. As the volume, variety, and complexity of data continues to increase, the skills necessary to master it become proportionally scarcer. Transferring the burden of data sourcing and management, and allowing users to focus on finding value in its use, requires little overt endorsement as a sensible step for many organizations. To avoid this category of as-a-service being lost as an infrastructure play, we suggest that highly targeted, business issue specific DaaS solutions will complement the growing presence and budgets of business department buyers.

Key messages

- **DaaS is an instinctive next step in the evolution of as-a-service.** The benefits of DaaS extend beyond those of the as-a-service delivery model. The intrinsic value of DaaS as a means to access a broad range of external data sources to power business processes and augment in-house systems of record mark it for growing market prominence.

- **Why now? The data challenge only ever grows.** Data is only getting bigger and more complicated. From volume to type, the challenges of sourcing and managing data distract organizations from finding value in it.

- **Business actions unlock the value of data.** Business technology belongs in the hands of business users; an IT solution that requires significant training or specialist skills has a barrier to its effective use. Users need to be freed to focus on content by easy-to-use, function-focused tools rather than fighting to understand the technology.

- **Beyond the technology: privacy, legal, and rights .** To effectively use data means to understand its provenance and the implications of its use. Developing the necessary skills to tackle this issue is a real challenge for most organizations. Underestimating the importance of this area of data use carries significant risk; the leading DaaS vendors will position themselves to carry much of the burden.

Recommendations for enterprises

The value of freeing business users to focus on "getting the job done" rather than trying to understand IT is difficult to overstate. DaaS – like many other components of the as-a-service market – provides this opportunity, offloading much of the related data management challenge to vendors for whom it is a core competence. We recommend that enterprises assessing DaaS solutions initially acquire them based on a well-understood and specific business need (for example, online marketing). However, as the category develops, options to extend DaaS capabilities to other parts of the business will appeal to many.

Recommendations for vendors

DaaS, as an emerging category of as-a-service in its own right, runs the risk of being dismissed as an infrastructure-as-a-service (IaaS) add-on. While it is true that some elements of DaaS fall into the IaaS domain (for example, elements of physical and qualitative data management), it will be the placing of this service in the context of issue- and business-specific solutions that will initially define it in the eyes of the market. We recommend vendors developing and launching DaaS capabilities closely align them in this fashion, helping develop the market's understanding and facilitating conversations with prospects and clients.

DaaS is an instinctive next step in the evolution of as-a-service

Data-as-a-service as defined

DaaS is the natural response to the growing volume and variety of data, the skills it requires to manage that data, the appetite to use data-driven insight as a means to generate competitive advantage, and the move to use of as-a-service solutions. If data is, however, not simply a commodity, then neither is DaaS. As appreciation of the importance of the value of data as a source of potentially valuable insight grows, so does the profile of the tools and processes used to manage it.

At its core, DaaS can be defined as the sourcing, management, and provision of data delivered in an immediately consumable format to organizations' business users as a service. In theory, DaaS could be used to provision any data type. However, we do not expect this to be the case with early DaaS solutions, which we expect will likely focus on well-defined business functions.
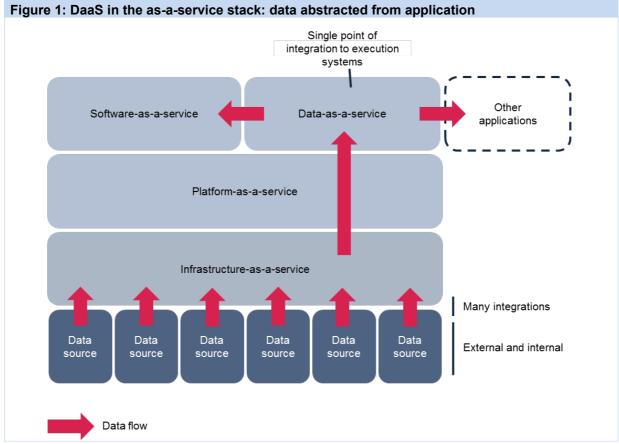
Initially two features will shape it as a new category within the as-a-service solution set:

- The ability to use DaaS by non-IT expert users to produce actionable insight – users should not have to be concerned with either the underlying technology of a DaaS solution or becoming an expert in its use. Users should be released to focus on obtaining the right data for the task in hand, be able to implicitly trust that data and benefit from pre-built integrations that manage both the sourcing of data and its provision to the applications they use to execute decisions on.

- Opening the market through issue- or industry-specific focused DaaS solutions – the presentation of new-to-the-market DaaS solutions demands that they be placed into an easily recognized context. This could be sales or marketing function solutions, for example. The

conversation vendors have with their enterprise prospects and clients should be about business outcomes and the role DaaS can have in achieving them, not the underlying technology infrastructure.

Where does DaaS sit in the as-a-service stack?

If DaaS is an evolution of as-a-service, then it should follow the bottom-to-top stack logic of infrastructure-as-a-service (IaaS) followed by platform-as-a-service (PaaS), then software-as-a-service (SaaS), capped by DaaS. The development of as-a-service categories has not, however, followed a linear progression. Arguably, salesforce automation was the first of these solution areas to emerge and as a SaaS solution was the first recognizable category.

Figure 1: DaaS in the as-a-service stack: data abstracted from application

Source: Ovum

As an emerging part of the as-a-service market, DaaS runs the risk of being marginalized as an add-on component of IaaS, and perceived as a tool purely for the management of commodity data, far removed from the value creation associated with actionable insight. If DaaS is successfully positioned, however, it has the potential to be viewed as the fuel delivering a trusted source of data to power better business decisions.

More than one type of vendor is capable of delivering DaaS

The vendor types that may provide DaaS solutions are not wholly contained in the technology world and the scope for competition in this area is significant. Given the degree of required technical expertise (both from a technology and data skills perspective) it is our view that immediately three vendor types have potential to enter this market:

- Large technology vendors. With a long legacy in the management of data, a range of related business applications, expertise in as-a-service, and either through internal development or acquisition of relevant capability, technology vendors such as IBM, Microsoft, Oracle and SAP are strong candidates for delivering DaaS solutions. Their challenge will be to have the right conversation with prospects and clients. DaaS will be served best in a business context and is unlikely to be acquired by IT departments.
- Full service advertising agencies. Agencies such as Dentsu/Aegis Media, Havas, Interpublic (IPG), PublicisOminicom, and WPP are in the running to play a key role. They have significant expertise in the digital world and the new data types it provides. They also possess capabilities closely aligned to the business focus required to make DaaS successful.
- Systems integrators and business services providers. Vendors such as Accenture and Deloitte that combine technology capability with business consulting are strongly positioned to help shape the DaaS market. Matching technical skill to business context, the willingness to acquire and launch new capability (e.g. Accenture Interactive, Deloitte Digital), a reputation for independence, and benefitting from senior-level relationships with many business heads puts them in good standing.
- Data players. Data players such as Axciom, Experian, and Neustar have the potential to further extend their offerings to encompass DaaS solutions. They offer a substantial track record in managing vast and varied data sets and helping leverage the value of those data sources for clients.

As a market in an early stage of development there is a clear opportunity for partnership working in order to address the potential market for DaaS. This approach is made more likely by our suggestion that most early DaaS solutions will come in an issue-specific format, providing the opportunity to combine business know-how with technology capability.

From a vendor perspective, it is also worth noting the important role that being data vendor-agnostic will play in this area. Given the breadth and depth of data providers available, those DaaS solution vendors able to operate across the broadest range – as per client requirements – will be best positioned to make the case for the value of DaaS.

Why now? The data challenge only ever grows

The data landscape is becoming mountainous

The physical management of data has always represented a significant and costly challenge for organizations. It also rarely features as a high priority for average business users. The issue is two-fold: data volume and variety is continuing to expand, creating a constantly hardening target in terms of the necessary skills and resource to manage it. Secondly, is developing that broad and deep range of skills a valuable exercise for most organizations? In some cases, the answer is yes (financial services institutions are a prime example), but for many organizations it is a resounding no, especially where businesses are looking to adopt and experiment with new technologies on accelerated timescales.

DaaS solutions are a direct response to this challenge, providing customers with the ability to focus on business value from the use of data rather than expending time, effort, and money ensuring its

veracity. A DaaS provider should have a long and successful track record in the management of data in all its types, providing the links between disparate data sources through common identifiers and between internal/external sources; and with partnerships and technical integrations across an expansive spectrum of data sources.

Fragmented data markets require consolidation

The emergence of DaaS is indicative of the ongoing development of markets for data – an area still in the early stages of formalization. The number of data providers, particularly web-sourced data, is constantly growing, adding to an already busy landscape of data aggregators that offer a broad variety of data services. To a certain extent, the market for data is analogous with app stores for smartphones – a single source acts as trusted provider of a range of content while hiding the technical complexity from users.

It is too early to confidently predict what the longer term future of the market for data will be, but it is certainly possible a small number of "super aggregators" will become the trusted source of data in future. To deal with the fragmented market today, we suggest there are two approaches:

- Those organizations with expertise in data, for example full service advertising agencies, will likely rely on their existing relationships with a range of data providers, building new relationships and integrations as needed.
- For those organizations without the breadth of existing relationships and expertise, selecting a data aggregation partner (in the form of DaaS) that can deliver data as required, but through a single point of integration, will offer the benefits of access to a wide range of sources without the technical complexity of attempting to build many one-to-one integrations.

Signal or noise? Data quality in an unstructured world

The old data quality adage, "garbage in, garbage out," holds true today. It is even more relevant with the rise of unstructured data and the difficulties that presents in separating valuable, actionable signals from noise. Even at a relatively simple level, data quality remains an ongoing challenge, translating traditional data quality into the world of unstructured data and particularly data sourced from social media is a highly specialized capability.

Relatively new sources of information, such as various mobile identifiers and web cookie data, present additional challenges to traditional concepts of data quality. Uncovering the value of these new sources is only part of the challenge, understanding their source, developing trust in their veracity and how they can be rightfully used is beyond most organizations' current capabilities and the value of developing those capabilities is questionable. Providing that expertise with a demonstrable legacy of successful client engagements will be one of the defining features of many DaaS providers' solutions.

Business actions unlock the value of data

Empowering business users to act on data driven insight

Turning data into actionable insight is the means by which data's commercial value is exploited, but a disconnection has often existed between the business user acting on that insight and the systems used to produce it. The logical solution is to remove that disconnect, putting the technology into the

hands of business users and doing so in a way that doesn't require specialized IT or analytical skills. Empowering business users in this way is a key feature of the consumerization of IT and a native feature of many as-a-service solutions. DaaS should, and we expect will, embrace this approach, freeing users from the demands of understanding the technology and providing them with the tools to not only generate actionable insight but, critically, through native integration into the tools they use to execute decisions, act upon it.

Monitor and measure, demonstrable value is the key

Releasing business users to focus on the content of their work, rather than understanding the IT they're using is the first step. The ability to clearly highlight the value of those tools is the next. There are many ways to measure the value of as-a-service solutions, not least the traditional approach of contrasting the capital expenditure of on-premises solutions with the operational cost of as-a-service. That approach is well-documented and, although it should be part of any assessment of DaaS solutions, we strongly encourage potential adopters to look for vendor case studies close to their own use cases and implement robust cost/benefit assessments of the technology on an ongoing basis.

Beyond the technology: privacy, legal, and rights

Data privacy is a theme on the rise

Data privacy as a topic is gaining traction in the public consciousness and appropriately is an area of ever-increasing focus for those who manage data. Traditionally, internally sourced data (for example, on-premises customer relationship management) presented a risk, but one that was relatively easy to manage. With, for example, the ability to take feeds from public social media posts and cookie data comes a whole new level of reputational and compliance hazard, and one which requires a much higher degree of technical capability in managing. DaaS presents the opportunity to forklift the complexity of this task to a vendor that should have a verifiable track record in managing the process of identifying data provenance, user preference, and anonymizing where appropriate. Issues of data privacy should be high on every organization's priority list. They carry both reputational and legal sanction risks that can threaten entire business models.

The other costs of data, compliance, and rights management

Legal frameworks governing the use and commercial exploitation of data are far from universal across national borders. Acceptable use and related payments in one country may vary widely from its neighbors. Obtaining the expertise to manage this challenge – although a necessity of using data for business gain – will be a resource-intensive distraction for most organizations, and one that is ripe for handing to a third party. Integrating this capability into DaaS solutions makes a great deal of sense and is an area we expect to vendors to competitively differentiate on based on their capability in handling this task.

The future of DaaS

The early days of a new category

The reality of DaaS as a component of the as-a-service market is in the very early stages of development. We expect it to emerge as a category in its own right but the path it takes to that is still unclear. What is clear is the value inherent in the concept of providing easy to access and use data that can be trusted to help business users make better business decisions without burdening them with the technical complexity of the underlying technology or attempting to navigate a massive, fragmented data landscape.

Competition in DaaS will not be just for clients and spend: the definition of this category is at stake. No one type of potential DaaS vendor can claim they have all the answers, not least because we do not know all the questions yet. It is quite possible that DaaS will, at least in the near term, be viewed through two lenses, one business (issue-specific DaaS solutions); the other technology (supporting infrastructure). Both will be critical to facilitating conversations with business and IT stakeholders respectively. As DaaS solutions begin to gain traction, build awareness, and become more mature, these conversations will merge and will mark the transformation of DaaS into a category of as-a-service in its own right.

Appendix

Methodology

This report was compiled through the use of vendor interviews, extensive secondary research, and analyst insight across related markets.

Further reading

Positioning Digital Marketing Services Providers: Agencies and Systems Integrators, IT013-000238 (November 2013)

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