

IDC MarketScape

IDC MarketScape: Asia/Pacific (Excluding Japan) Analytic Data Platforms for Decision Support 2023 Vendor Assessment

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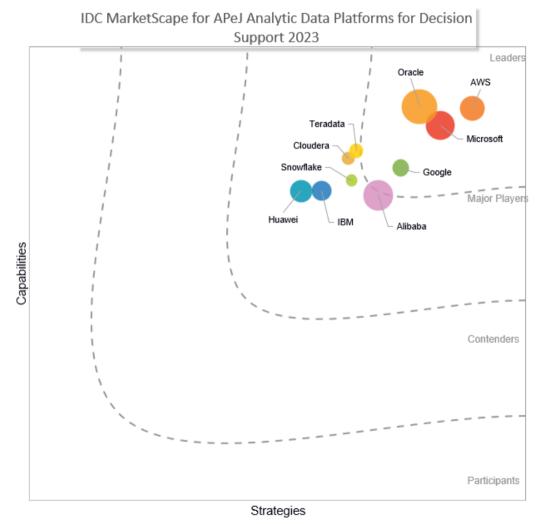
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THIS MARKETSCAPE EXCERPT FEATURES: AMAZON WEB SERVICES (AWS)

IDC MARKETSCAPE FIGURE

FIGURE 1

IDC MarketScape for Asia/Pacific (Excluding Japan) Analytic Data Platforms for Decision Support 2023



Source: IDC, 2023

Please see the Appendix for detailed methodology, market definition, and scoring criteria.

IN THIS EXCERPT

The content for this excerpt was taken directly from IDC MarketScape: Asia/Pacific (Excluding Japan) Analytic Data Platforms for Decision Support 2023 Vendor Assessment (Doc # AP48959322). All or parts of the following sections are included in this excerpt: IDC Opinion, IDC MarketScape Vendor Inclusion Criteria, Advice for Technology Buyers, Featured Vendor Profile, Appendix and Learn More. Also included are Figure 1, Figure 2, and Figure 3.

IDC OPINION

In the wake of the recent and near-term macroeconomic and business environment, Asia/Pacific enterprises should prioritize operational efficiency, agility, and customer satisfaction, according to IDC's 2022 Future Enterprise Resiliency and Spending Survey, Wave 8. The ability to move ahead with business priorities largely depends on an organization's data-driven decision-making capability — its enterprise intelligence (EI). IDC defines EI as an organization's capacity to gather information, ability to synthesize information, and ability to apply the resulting insights at scale to improve business outcomes. IDC's EI benchmarking research shows that maturity in EI makes a material difference to business outcomes. For example, top-quartile EI performers are 2.7 times more likely to have experienced strong revenue growth in 2020–2022 and 3.6 times more likely to have accelerated their time to market for new products, services, experiences, and other initiatives.

Improving EI or data-driven decision making will often require concerted investments and actions at multiple levels: from data platforms (to enable more openness, flexibility, scale, and connectivity) and pipelines and processes (to enable more effective and consistent data processing to make data insight-ready) to tools (to build and deliver analytics and insights), decision-making and action-taking processes, and culture. Perhaps the most critical technology component for EI is the selection of an appropriate data analytics platform for decision support. Such a platform must support the following emerging trends and enterprise requirements:

- Traditional analytical solutions, such as on-premises data warehouses and associated workloads, are migrating to the cloud. These must align with newly developed data lakes and a combination of analytics tools and architectures (e.g., a lake house). To date, organizations have been unable to extract value from such investments (in terms of ROI or a continuous stream of insights to be used in decision support/making) and must strive for suitable ROI through a federated data platform that can handle multiple analytical and data science workloads.
- Enterprises also need platforms to support newer data paradigms and architectures (data fabric, data mesh) along with the enablement of several industry-specific use cases.
- Furthermore, data management (integration and integrity) has been a long-term challenge for analytics professionals. Enterprises need a data control plane that acts as an architectural layer that combines a holistic set of data activities (e.g., integration, access, governance, and protection) to manage and control the holistic behavior of people and processes in the use of distributed, diverse, and dynamic data.
- Enterprise data has drastically changed over the last decade. Data is mostly diverse (structured, semi-structured, unstructured), distributed (on-premises, cloud, edge), voluminous (with a proportion of duplication), and dynamic (including streaming data). Organizations need data platforms that are open, composable, and amenable to emerging data types, sources, and sinks and can readily be used by multiple user personas. Additionally, the data platform must be able to support countless deployments (on-premises, cloud, hybrid, multicloud, containerized) to reflect enterprises' current IT landscapes.
- Organizations require analytics solutions that provide superior performances (ability to work
 on complex queries at speed and stability) at low costs through a combination of architecture
 and pricing innovations. For instance, the solution could have provisions for decoupling

- resources, allowing both high performance and reduced costs. In addition, cloud-based analytics solutions that offer tiering and usage-based pricing to users are also appreciated.
- With increased data volumes and a shortage of skilled resources, organizations need scalable analytics solutions meshed with automated modules and systems (the ability to build and manage data pipelines) to drive cost efficiencies at scale and deliver insights at speed to suit the business requirements of time to market.
- Risk management and compliance are key requirements for enterprises, especially in regulated industry verticals. The analytics solution must be secure with adequate precautions and mechanisms for data security.

IDC has categorized data analytics platform features that address the aforementioned concerns and requirements into six groups. These are used as evaluation criteria as a key parameter in the capabilities axis:

- Economics to lower cost barriers that prevent or delay organizations in becoming data-driven
- Agility to provide productivity support and lower the skill barriers for various personas involved in the data-to-decision life cycle
- Integrity to ensure data from different sources are governed, compliant, and discoverable by the right user group
- Collaboration to support role-based sharing, productization, and flexible data ingestion, movement
- Timeliness to improve query performance for increasingly large data sets, concurrent accesses, and transactional workload support
- Variety to synthesize multiple data types, structured and unstructured, by leveraging complex queries supported by machine learning (ML) algorithms and libraries

Each of these criteria has been allocated a weighting (in proportion to their current relative importance to the success and screening of analytic data platforms). These weights may change over time as enterprises consider some parameters more important than others. IDC opines that enterprises must use these parameters based on their specific business, IT, and data requirements and an internal assessment of their current capabilities.

Figure 2 provides a schematic representation of these groups of features.

FIGURE 2

Analytics Data Platforms for Decision Support: Functionality and Offerings — Key Capability Groups



Source: IDC, 2023

IDC MARKETSCAPE VENDOR INCLUSION CRITERIA

This IDC MarketScape study aims to assess vendors according to analytic data platforms for decision support. For a definition and comparison with similar data platforms leveraged for other use cases, please refer the Figure 3.

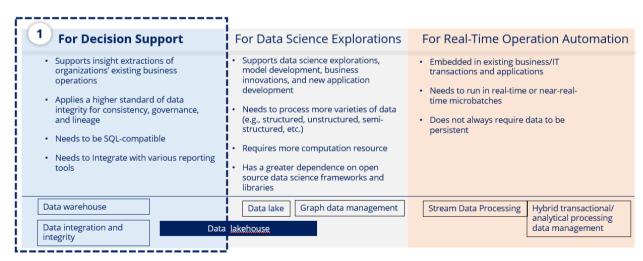
The following vendor inclusion criteria have been used in the study:

- The company offers analytic data platform product(s), with online analytical processing (OLAP) capabilities to cover relational data warehouse, data lake houses, and data integrity and data integration tools. The platform must have the following capabilities:
 - Ingests and integrates data from multiple systems in an organization
 - Allows users to perform complex analytics queries and analyze diverse data
 - Provides metadata management and data fabric architecture for unified governance
 - Integrates with third-party reporting and business intelligence (BI) tools
 - Provides features of a data lake house (a combination of a data warehouse and a data lake)
- The product(s) has been commercially available in Asia/Pacific (excluding Japan) (APEJ) for at least 12 months as of February 2022 on cloud or on-premises.
- For the product(s), the company is among the top 15 vendors by reported revenue in CY21 in APEJ according to IDC's Big Data Analytics Software Tracker. Alternatively, the company can confirm the revenue has exceeded US\$10 million during this period.

FIGURE 3

Market Definition and Scope

The analytic data platforms software market has evolved to cater to three different business purposes, requiring different technology stacks.



This report studies the **first type** of analytic data platform, that is, those for **decision support only**.

Source: IDC, 2023

ADVICE FOR TECHNOLOGY BUYERS

IDC recommends the following:

- Invest in upgrading the El capabilities of your organization. Data must be at the heart of any
 critical decisions that impact business. Therefore, it is imperative for organizations to devote
 the time and resources in measuring and augmenting their El capabilities on a continual
 basis.
- Define your data strategy for the future. An effective data strategy takes into consideration current, midterm, and long-term business priorities and defines the processes, technology data landscape (data sources, platforms, assets), and necessary organization structure needed to manage data across an ecosystem.
- Modernizing decision support systems is key to data-driven decision making. In the era of digitization, an organization's decision support system has to evolve to keep up with the rapid pace of innovation. Organizations must consider leveraging platforms that enable decision support.
- Agility, timeliness, integrity, variety, economics, and collaboration are key when selecting a data platform. Adequate emphasis must be levied on high-performance and scalable analytics systems that can work on a variety of data types and deliver results for multiple user personas. Organizations globally and in Asia/Pacific are increasingly relying on cloud-based data platforms to modernize data workloads and report optimal benefits. This could be crucial for organizations exploring options to future-proof their EI and decision-support capabilities.
- Invest in analytic data platforms. These platforms must support and enable emerging data architectures that support business- or technology-based paradigms, such as data fabric, data mesh, and lake houses.
- Data governance is crucial to the success of a modern decision support platform. Data management (data integration, data integrity, metadata management, governance, access, master data management, and security) remains a key challenge in most analytics initiatives. It is imperative for organizations to build a robust data governance layer to support the technology layer of a decision support system. Additionally, organizations must explore decision support platforms with in-built capabilities (or integrations) for data governance.

FEATURED VENDOR PROFILE

This section briefly explains IDC's key observations resulting in Amazon Web Services' position in the IDC MarketScape. The description here provides a summary of the vendor's strengths and opportunities.

Amazon Web Services

Amazon Web Services (AWS) is positioned in the leaders category in IDC's 2023 MarketScape for APEJ Analytic Data Platforms for Decision Support.

Platform Overview and Key Capabilities

AWS' analytic data solution portfolio scoped in this study consists of Amazon Redshift (a fully managed relational data warehouse), Amazon Athena (a query engine for a data warehouse, a data lake, and real-time transactional workloads), AWS Glue (an analytics data integration and integrity tool), and AWS Lake Formation (for unified metadata and access management). Additional capabilities included in the exercise are AppFlow, DataSync, Redshift Spectrum, and Database Migration Service (DSM).

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Strengths

AWS' strengths are:

- Functionalities and offerings. AWS' analytic data solutions for decision support have differentiating capabilities in supporting collaboration, agility, economics, integrity, and timeliness:
 - Collaboration. AWS Glue supports data catalog sharing and data mesh and provides data
 movement and lineage visualizations for various internal and external data sources. AWS
 also provides a wide range of data migration and ingestion services to increase data asset
 availability and diversity.
 - Agility. AWS provides a low-code console for job scheduling and workload management and offers various industry solutions to help customers accelerate time to value. AWS Glue supports more than 90 data stores, including data stores on cloud and on-premises environments, such as Snowflake, Google BigQuery, Azure Synapse, and Azure Cosmos DB.
 - Integrity. AWS Lake Formation supports unified and intelligent metadata management and is provided with fine-grained access control and features, such as multifactor authentication (MFA) and encryption in transit. AWS Glue supports data discovery, data catalogue, data lineage, and data audits. At the platform layer, each AWS cloud region is composed of multiple Availability Zones, which are fully isolated partitions to support data security, compliance, and sovereignty requirements.
 - Timeliness. Amazon Athena supports federated query across relational, nonrelational, and transactional data stores. Amazon Redshift offers concurrency scaling, which allows unlimited concurrent users with consistent query performance. Users can also leverage advanced features, such as automated materialized views. AWS also works on optimizing query performance by offering purpose-built storage and proprietary compression for date-/time-related data sets. Amazon RedShift streaming ingestion is an added advantage.
 - Economics. AWS offers a complete end-to-end serverless data platform, which includes Amazon Athena, AWS Glue, Amazon Redshift, and other adjacent solutions, such as Amazon QuickSight and Amazon Elastic MapReduce (EMR). Amazon Redshift provides various infrastructure and architecture options to lower performance costs, including a serverless option, separated scaling of compute and storage with customized pricing options, loyalty programs, and managed scaling and resizing services to help customers optimize performance.
- Service delivery. AWS has on-the-ground sales and delivery and support in most countries in APEJ. Its analytic data solutions run natively on AWS cloud, which has 12 regions in Asia/Pacific, namely two each in India, China, Australia, and Japan and one each in Singapore, Indonesia, and South Korea, and Hong Kong. It has announced three more regions in the region one each in Malaysia, Thailand, and New Zealand. It has 31 Availability Zones (excluding Japan), 5 live Local Zones, and 6 more coming (Vietnam, New Zealand, India, Australia, and Philippines) to help customers in regional and hybrid requirements, along with 77 edge locations and 4 regional edge caches in Asia. AWS leverages a very large partner network to reach out to many regional organizations.
- Growth opportunity. AWS is predominant in the DNB customer segment and is steadily gaining ground in the large enterprise sector, with more new-logo customer wins in ANZ, Singapore, India, and Vietnam.
- Delivery capabilities. AWS has set up new cloud regions in Hyderabad, India and Melbourne, Australia, with new regions announced in Malaysia, Thailand, and New Zealand. AWS also opened five new Local Zones in India, Australia, Thailand, and Taiwan in 2022 to widen its cloud reach. In 2022, 13 new AWS Data Labs were made available in APEJ to connect customers with AWS' technical resources to accelerate their data modernization initiatives.

Portfolio benefit. AWS is the largest public cloud SP in the region, according to IDC's Public Cloud Services Tracker, 2021. It offers additional analytics solutions, such as Amazon EMR for nonrelational data stores, Amazon QuickSight for BI, and Amazon SageMaker for data science exploration, productization, and life-cycle management. In 2020, AWS acquired DataRow and DB Best Technologies to further strengthen its collaboration-related capabilities.

Challenges

AWS will need to provide more tailored solutions and journeys to expedite adoption processes and communicate the importance of data-infused apps to help large organizations drive data-informed decision making.

Consider AWS When

Organizations that intend to execute data modernization strategies, require a breadth of functionalities and tools, and emphasize economics, timeliness, and integrity should consider AWS. AWS is very active in bringing new feature releases to its analytic data portfolio with an industry-focused approach to help organizations accelerate change.

APPENDIX

Reading an IDC MarketScape Graph

For the purposes of this analysis, IDC divided potential key measures for success into two primary categories: capabilities and strategies.

Positioning on the y-axis reflects the vendor's current capabilities and menu of services and how well aligned the vendor is to customer needs. The capabilities category focuses on the capabilities of the company and product today, here, and now. Under this category, IDC analysts will look at how well a vendor is building/delivering capabilities that enable it to execute its chosen strategy in the market.

Positioning on the x-axis or strategies axis indicates how well the vendor's future strategy aligns with what customers will require in three to five years. The strategies category focuses on high-level decisions and underlying assumptions about offerings, customer segments, and business and GTM plans for the next three to five years.

The size of the individual vendor markers in the IDC MarketScape represent the market share of each individual vendor within the specific market segment being assessed. For this MarketScape, vendor size was mostly determined according to IDC's Semiannual Software Tracker 1H22 and IDC's Semiannual Big Data and Analytics Tracker, 1H22. These provide estimates of each vendor's 2021 and 1H22 software revenue parked under the technology categories of database management systems and data management.

IDC MarketScape Methodology

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end users. Market weightings are based on user interviews, buyer surveys and the input of IDC experts in each market. IDC analysts base individual vendor scores and, ultimately vendor positions on the IDC MarketScape, on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behaviors, and capabilities.

Market Definition

This IDC MarketScape study aims to assess vendors' analytic data platforms for decision support. For definition and comparison with similar data platforms leveraged for other use cases, please refer to Figure 3).

The following vendor inclusion criteria have been used in the study:

- The company offers analytic data platform product(s), with OLAP capabilities to cover relational data warehouse, data lake houses, data integrity, and data integration tools and has the following capabilities:
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 - Integrates with third-party reporting and BI tools
 - Provide features of a data lake house (combination of data warehouse and a data lake)

LEARN MORE

Related Research

- IDC Survey Spotlight: Navigating Data Barriers in Asia/Pacific (IDC #AP49167723, February 2023)
- IDC FutureScape: Worldwide Data and Content Technologies 2023 Predictions APEJ Implications: Positioning for Success – Opportunities for Tech Sales and Marketing Leaders (IDC #AP48486122, January 2023)
- IDC FutureScape: Worldwide Data and Content Technologies 2023 Predictions Asia/Pacific (Excluding Japan) Implications (IDC #AP48485822, December 2022)
- IDC Perspective: Building a Data Culture (IDC #AP48486222, October 2022)
- IDC Presentation: Why Data Culture Matters (IDC #AP48486522, August 2022)

Synopsis

This IDC MarketScape provides an assessment of analytic data platforms for decision support in Asia/Pacific (excluding Japan) (APEJ) and presents the most important criteria for companies to consider when selecting such a platform to become an intelligent enterprise. This assessment discusses both quantitative and qualitative characteristics that explain success in decision support capabilities in organizational data initiatives. The evaluation is based on a comprehensive and rigorous framework that assesses vendors relative to each criterion. The study highlights the success factors expected to be the most influential now and in the future for companies considering, exploring, scrutinizing, or reviewing their data platform investments.

"Given the global economic downturn and the impact of the Russia—Ukraine War, most businesses need to leverage analytics and artificial intelligence (AI) across the board to improve productivity and operational efficiencies. This has accelerated the need for a robust yet nimble decision support platform that can balance and serve the needs of the user in terms of scalability, performance, reliability, and time to value depending on the use case it is designed to deliver," says Deepika Giri, associate VP on AI and analytics strategies, IDC Asia/Pacific.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

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