



Choose Wisely When Selecting an Enterprise Data Platform

The 451 Take

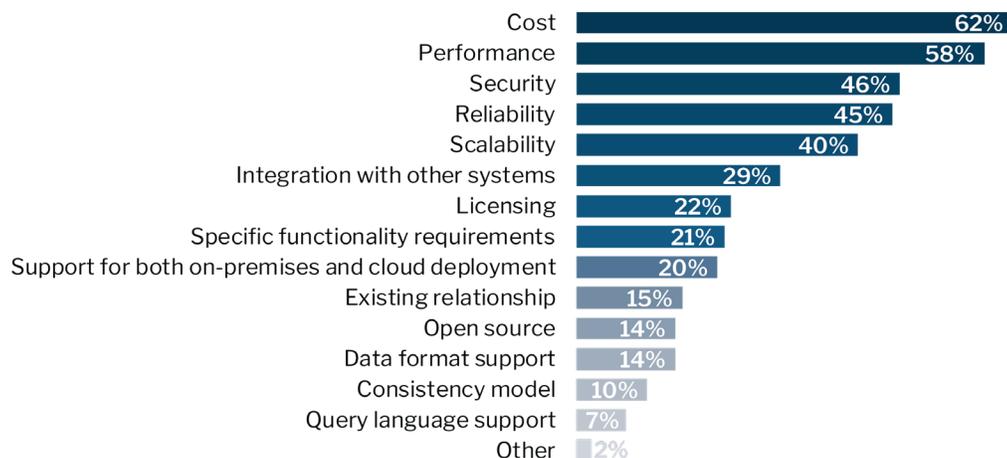
We are living in the data age, where more data will not only be generated and captured but also consumed for operational and analytics purposes than at any other time in history. According to 451 Research's Voice of the Enterprise: Data & Analytics 2H 2019 report, the median data volume – both structured and unstructured – that enterprises currently have under management is now greater than 630TB, with that number expected to exceed 820TB within two years.

The high data volume expected puts a significant amount of importance on the data platforms and databases enterprises choose to work with and store this data. Because databases represent mission-critical data systems of record and systems at the edge, not adopting the right technologies can have tremendous negative consequences for the enterprise. According to 451 Voice of the Enterprise survey data, cost (62%) and performance (58%) were the top two factors IT professionals considered when selecting data platform vendors. However, respondents also cited security, reliability and scalability – which all came in at or above 40% – as important factors.

Selection Criteria When Considering a Data Platform

Source: 451 Research's Voice of the Enterprise: Data & Analytics 2H 2018

Q. Which of the following factors were considered when selecting your current data platform vendor(s)? (n=615)



When looking to adopt a database system, enterprises rarely purchase based on a single characteristic, such as cost, even though cost tops the list of important factors. Enterprises favor database systems with a select set of key characteristics. According to our survey data, those key characteristics also include performance, security, reliability and scalability. It's easy to see how cost and performance relate. For instance, a price-per-performance metric can be quite beneficial because enterprises aren't interested in overpaying for a poorly performing system. While cost can refer to a reduction in hardware, software licensing, networking and so forth, it can also mean reduced operational expenses. In that sense, enterprises identify the totality of costs as a strong selection criterion. As such, cost can impact security, reliability and scalability. For instance, poor or ineffective database security could result in unexpected data breaches, which would likely negatively impact cost, too.

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Business Impact

ENABLE MULTIPLE CAPABILITIES. There are numerous database characteristics that may be important to organizations, but they are not all measured equally. Choosing a vendor strictly based on an existing relationship, for instance, may lead to an affable contractual relationship, but the overall system could prove unreliable and perform poorly for certain workloads. Thus, prioritizing the most critical characteristics that provide benefits in multiple areas is essential.

ENABLE COST REDUCTIONS. Research continues to show that cost is often one of the highest, if not the highest, characteristic when enterprises choose their data platform. What's noteworthy is that when positioned correctly, other traits contribute to cost as well – security, for instance. A security breach could have damaging consequences for enterprises; as such, enterprise security makes a lot of investment sense.

ENABLE HIGH-PERFORMANCE PROCESSING. Enterprises also look closely at data platform performance. What was high-performing in the past may be low-performing by today's standards, so enterprises should choose vendors that have incorporated performance as a foundational architectural characteristic, taking advantage of current innovations and development practices.

ENABLE MODERN APPLICATIONS. Data volumes are expected to rise dramatically over the next several years, which means that database systems will be expected to handle the volume, including during times of crises. Certainly, legacy systems may struggle with more modern applications, but current systems may struggle as well unless they have been architected to handle modern workloads. Removing cost, enterprises want database systems that are highly performant while also scaling and remaining reliable, regardless of data volumes.

Looking Ahead

Although potentially challenging, the projected growth in data – and the increase in users and their devices – presents enormous opportunities for organizations. These challenges point to a need for greater operational processing, including the capability for real-time processing, BI, analytics and advanced analytical work such as machine learning. But enterprises need the right database platform technologies in place to fully consume and leverage all the data and users so they can drive the applications and desired workloads.

When adopting database systems, enterprises do have choices, and those choices can have both immediate and long-term benefits, if chosen correctly. 451 Research continues to show that some data platform characteristics remain consistent over time. Cost and performance, for instance, are two such traits, in addition to security. Scalability and reliability are more modern traits that enterprises are seeking, which makes sense given the rise in expected data volumes and modern applications that need to handle high user concurrency, which requires millisecond responses.

Looking forward, enterprises must take the long view on data and data platform capabilities. For most, it is simply not feasible or practical to adopt a new database every year or two. Database system adoption is a significant and critical choice because systems are meant to last decades. While cost and performance are expected to remain important factors, all traits that support and enable high data volumes will likewise be key. Cloud computing certainly caters to high data volumes, as do AI and machine learning workloads, as both are expected to play a dominant role in the future.

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