

Cloud BI: Think Big, Think Small, Act Rationally

Introduction

Our 10th annual deep dive into cloud behavior and sentiment finds enthusiasm at an all-time high, with a majority considering cloud services either critical or very important (see the 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study). Yet, the number of organizations using cloud BI also declined year over year, and it appears that vendor enthusiasm is past the days of maximum obsession.

Any experienced observer might tell you that both observations are explicable and not contradictory. Cloud BI has reached a state of acceptance and even nonchalance in some corners. The biggest perceived benefit remains cost, and the biggest perceived barriers remain security and control. Although many tradeoffs are involved, over time, much uncertainty and consternation were removed from the decision process.

For the average organization, FOMO, or “fear of missing out,” also recedes, as reflected in the ebb and flow of adoption. In the long run, the service model is irresistible: less than 20 percent of respondents have no plans to use cloud BI in the future. Our expectation is not a radical shift to cloud BI but a steady drip-like increase during the next few years, led by new small-organization uptake and discretionary departmental spending from organizations of any size.

This dynamic makes it important to have dedicated resources, policies, and processes for BI and other cloud uptake. The case will be relative to each organization, driven by timing and necessity, but can be compelling. Our research shows that the same tools and applications used in traditional packaged BI are required and offered in cloud BI services. While cloud does not reinvent the wheel, differences exist nonetheless. Most new development takes place for cloud environments first (and often exclusively)—which by itself will “urge” migration. Existing benefits of cloud BI potentially include low up-front costs, elasticity, ease of deployment/democratization, automatic upgrades, and security with little risk besides the time investment. Since it is easily stopped and started, cloud BI offers the benefit of not forcing a pivotal “pull-the-trigger” moment. The potential downsides include user mindshare, feature sets, loss of control or customization/sophistication, data-migration time and cost, third-party transfer of trust, performance / SLAs, and, again, security. Organizations should investigate all these pros and cons before making any decisions.

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Advocates need to communicate the scope of “cloud” adoption internally because what the term can mean has many implications, and creates related risk and opportunity profiles. At one end, cloud can be little more than redefining the managed applications and infrastructure or co-location, with which many organizations already have familiarity. Most organizations have little if any remaining reasons to staff for operations such as payroll, travel, or food services. Technology services are not typically competitive differentiators. But at the other end of the spectrum, whole industries such as banking, lending, and insurance have been disrupted by fintech and insuretech startups that can meet customers—especially younger ones—directly from the cloud, with no granite edifices required. As scale and scope increase, so do the implications for cloud. These distinctions should be clear and explicable but are important to present to decision-makers in their proper context.

The proposition will vary for every business model, life cycle, and maturity. Any general guidance will have finite situational value. Internal expertise and sunk costs will balance the decision equation. Very often, when things work well, no need exists to change them today or tomorrow. Yet, cloud is inarguably a good place to update, migrate, grow, and subsume non-core processes. We can safely relate that migration arrives for every common necessity—from power generation to lawn maintenance. As with other former jewels of infrastructure, hosted BI and many other cloud services will arrive, though the runway will vary.

Executive Summary

1. Cloud BI crossed a threshold of credibility, with an all-time high of 55 percent of respondents considering it either critical or very important.
2. Although the highest perceptions of cloud BI importance scale linearly with success rates for BI initiatives, using cloud BI and holding it in high regard does not guarantee you a successful BI initiative.
3. The 2021 decrease in cloud BI use likely reflects impacts related to COVID-19.
4. Expressed sentiments show greater preference for private-cloud BI deployment, but spending levels indicate greater interest in public-cloud BI.
5. Concentrated, balanced sentiments indicate that organizations want and need significant flexibility in how they license cloud BI.
6. Across every feature, vendors express much higher levels of interest and support for cloud deployment of features vs. traditional on-premises deployment.

Recommendations

1. Identify existing on-premises BI applications that your organization can migrate to the cloud.
2. Organizations moving from on-premises BI to cloud BI should consider leveraging subscription and try-and-buy licensing models as part of this transition. These low-cost, minimum-commitment options provide an ability to compare offerings in the context of your organization's use cases and business needs, and can speed the time it takes to determine the right new BI solution.
3. Risk-averse organizations should consider initially moving a small portion of their BI application portfolios to the public cloud, leveraging a hybrid cloud model that slowly increases the percentage of public cloud BI in use while reducing the percentage of on-premises and private-cloud BI applications in use.
4. Organizations more aggressive with their technology deployments—as well as smaller and newer organizations unencumbered by significant legacy applications, data, and infrastructure—should consider moving more quickly and dedicating a high percentage (or all) of their BI applications to the public cloud.
5. Organizations with BI applications that readily cannot be migrated to the cloud should start investigating alternative solutions while continuing to support their on-premises BI deployments.
6. Consider cloud providers that can leverage new, useful functionality—for example, enhanced security, on-demand elasticity, rolling upgrades, and no service disruptions.

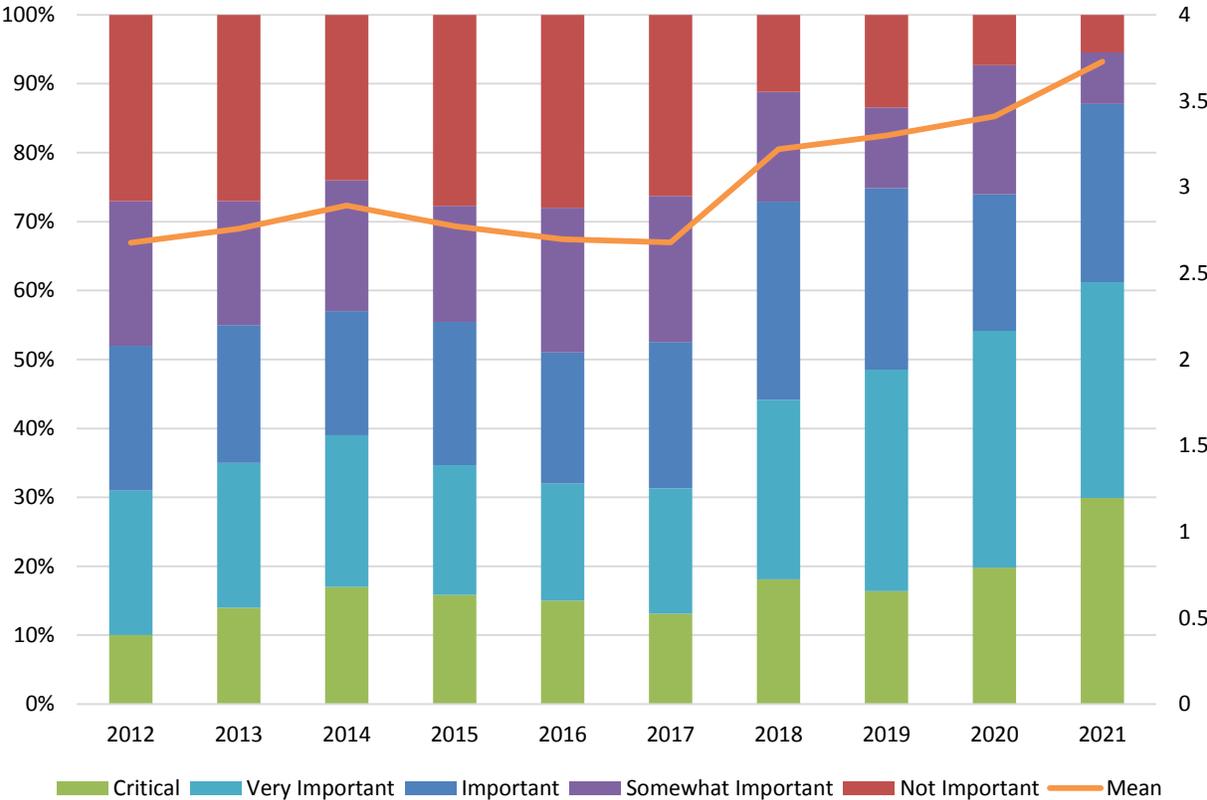
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The Perceived Importance of Cloud BI

An all-time high of 55 percent of respondents consider cloud BI either critical or very important. As shown in the weighted-average mean score, the sharp upswing registered by cloud BI in 2018 continued into 2021.

Although function, geography, industry, and organization size drive cloud BI uptake, compared to the data from the early years of this ongoing research, our most recent data show that cloud BI crossed a threshold of credibility, largely eradicating any lingering skepticism and ambivalence.

Cloud BI Importance 2012-2021



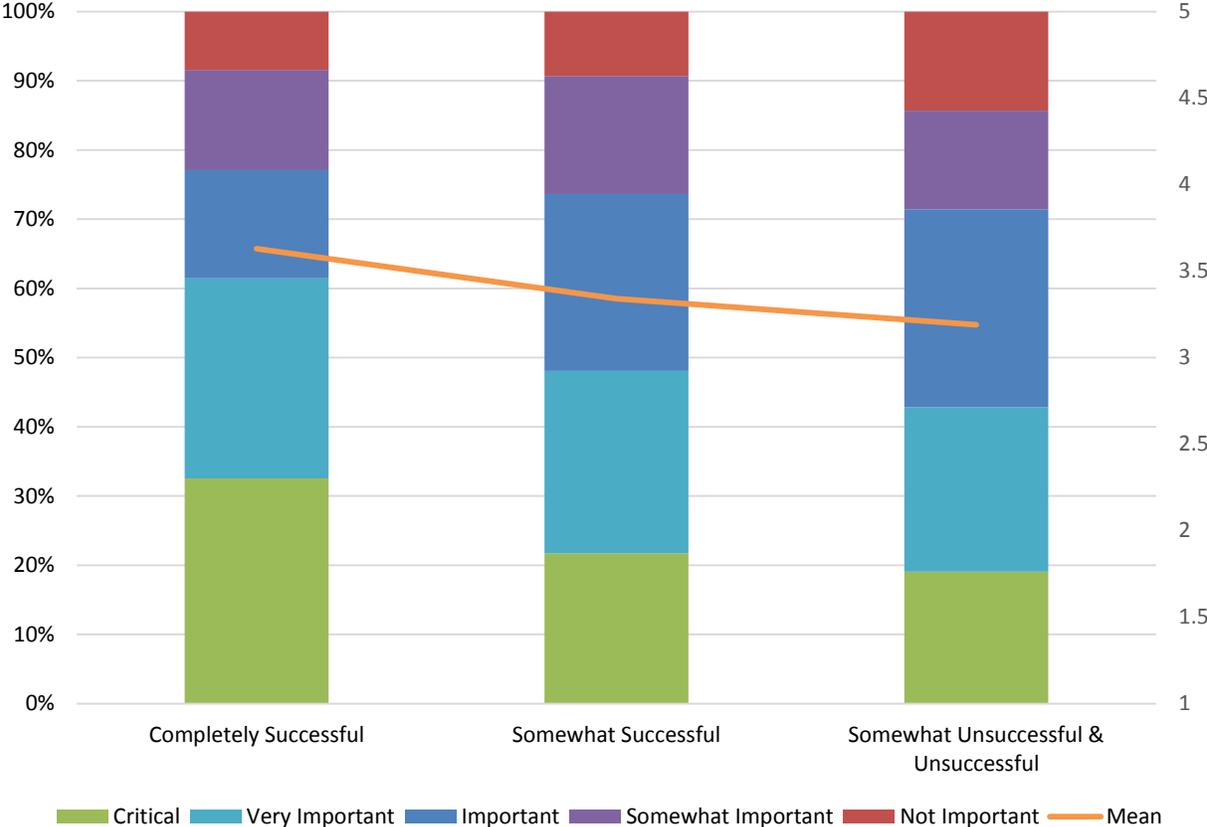
Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

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The Relationship Between Cloud BI Importance and Success

As indicated by the weighted-mean average, the highest perceptions of cloud BI importance scale linearly with success rates for BI initiatives. A solid majority of organizations that consider their BI implementations completely successful most often regard cloud BI as critical or very important (61 percent). Conversely, only 43 percent of organizations that consider their BI implementations completely somewhat unsuccessful or unsuccessful also view cloud BI as critical or very important.

Cloud BI Importance by Success with BI



Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

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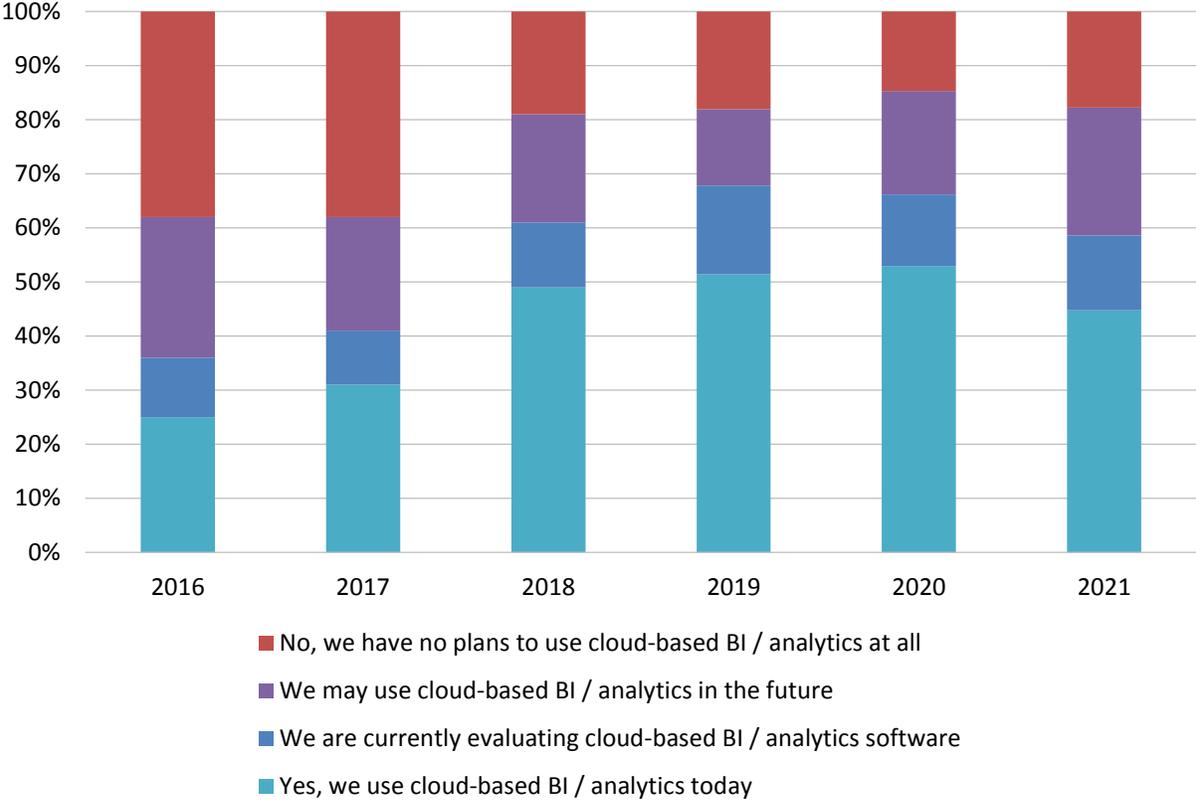
However, that does not necessarily mean that using cloud BI and holding it in high regard guarantees a successful BI initiative. When respondent perceptions also include the important rating, the data across all levels of BI success flattens significantly, ranging by only 6 percentage points between completely successful (77 percent) and somewhat unsuccessful or unsuccessful (71 percent).

In addition, those that consider cloud BI not important remains within a similarly tight range (6 percentage points) across all reported levels of BI success. Although less than the overall respondent average for no plans to use or deploy cloud-based BI or analytics (18 percent), the slight difference in these values offers no meaningful distinction.

Cloud BI Use Dropped in 2021

Although from 2016 to 2020 cloud BI adoption increased, 2021 data showed an unexpected year-over-year dip in the number of organizations using cloud BI (53 percent in 2020 vs. 44 percent in 2021), with corresponding year-over-year increases in the responses for “may use” (5 percentage points), “no plans” (3 percentage points), and “evaluating” (1 percentage point).

Plans to Use Cloud BI 2016-2021



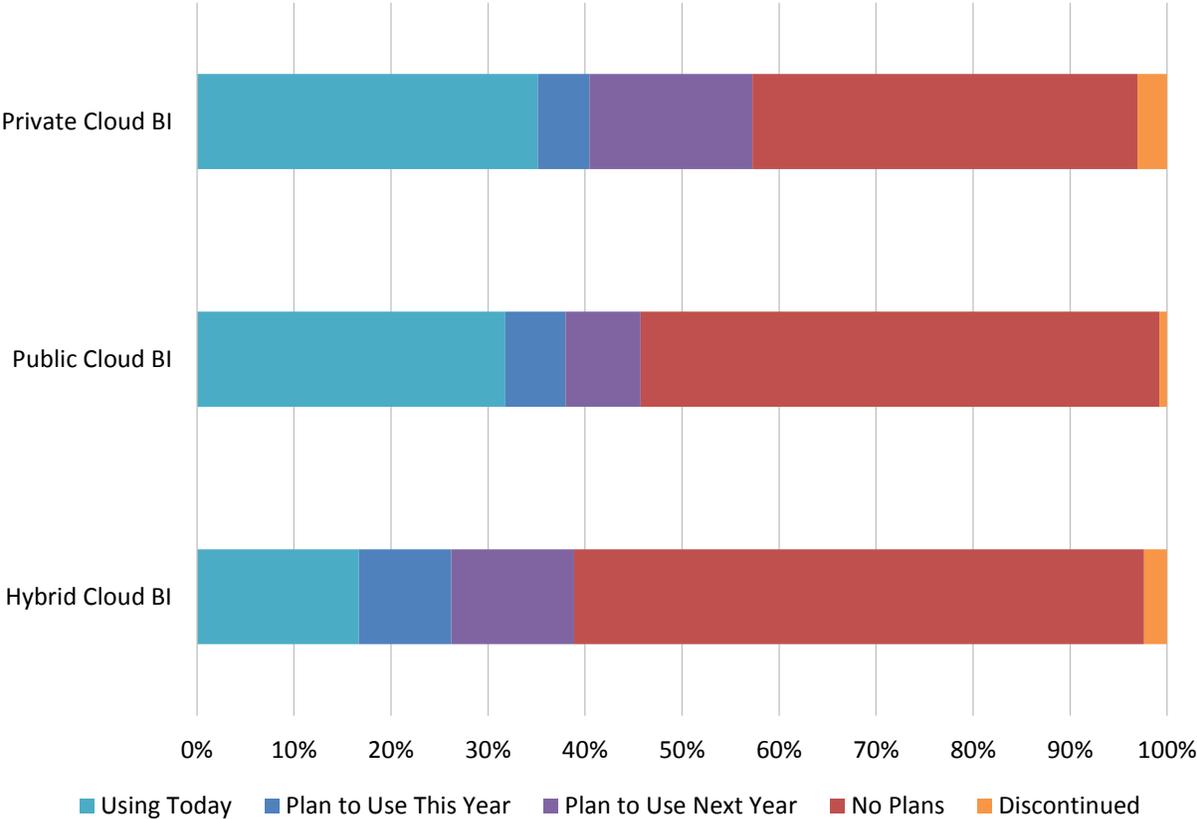
Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

This decrease in cloud BI use likely reflects impacts related to the COVID-19 pandemic. Our research shows large numbers of temporarily delayed BI projects early in 2021, as well as significant numbers of reduced or frozen budgets throughout 2021 (see the Research Insight “December 2021 Dresner Advisory Update on COVID-19 Impacts to Businesses, Projects, and Budgets”). Both factors likely played a role in decreasing use of cloud BI, which readily and easily can be both stopped and restarted.

Cloud BI Deployment Lacks a Clear Leading Model

Of the three cloud BI deployment models, use of private cloud BI (35 percent) holds a slight edge over public cloud BI (32 percent) and hybrid cloud BI (17 percent). These data show a continuing preference for private cloud BI, which first emerged in 2017. However, when including current-year planned use, the range narrows, from 18 percentage points for in-use models, to 13 percentage points for in-use and planned-use-this-year models.

Plans for Cloud BI by Deployment Model



Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

A leading model emerges only when looking out longer. When including any current or planned use, a majority of organizations (57 percent) prefer private-cloud BI deployment. However, this timing likely is not exact because a next-year response also may represent further-out time frames, and in-use deployments may be switched by the time that planned ones come online. For example, an organization may use hybrid-cloud BI as an interim step to a full transition to public-cloud BI.

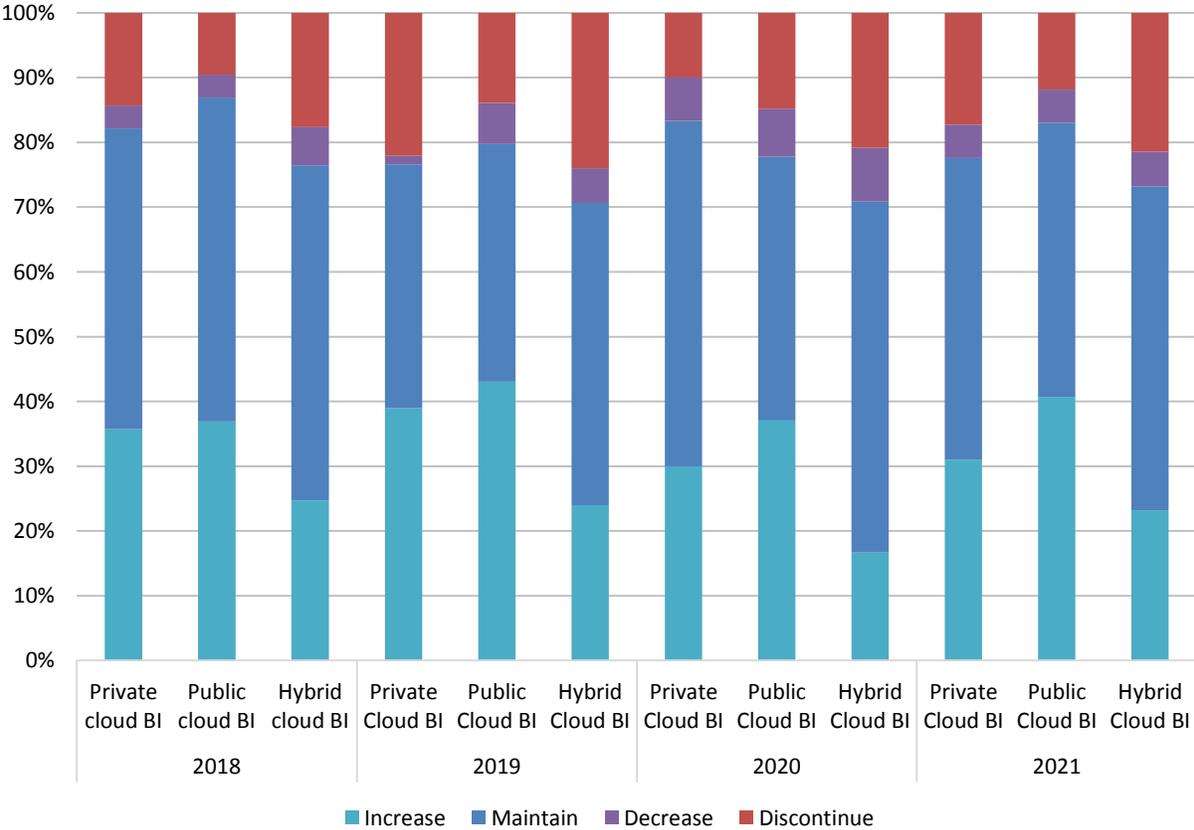
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Biggest Investment Increases Continue to Go to Public-Cloud BI

In 2021, organizations intended to increase spending year over year on all cloud BI models. As has been the case every year since 2018, the largest increases go to public-cloud BI, followed by private-cloud BI and hybrid-cloud BI.

Cloud BI spending that increases or is maintained at current levels tends to be higher for public-cloud BI than private-cloud BI (all years except 2020). This finding is somewhat counter to the deployment-model plans outlined on the previous page, which indicate higher planned levels of use of private-cloud BI in the intermediate and longer term. Although extensive budget fluctuations and changes during the last two years due to the impact of COVID-19 likely contribute to this dynamic, we will continue to look for additional answers for these differences in our ongoing research.

Cloud BI Investment 2018-2021



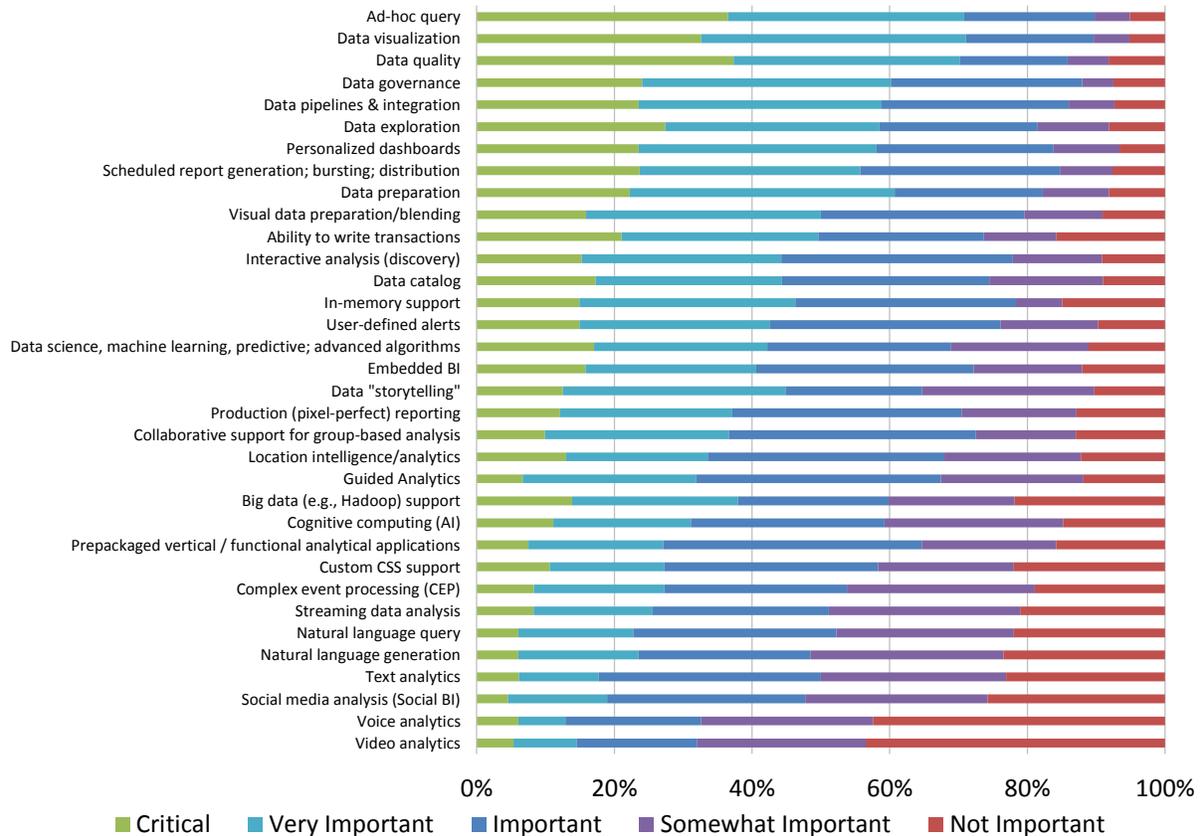
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Cloud BI Feature Requirements

In 2021, 70 percent of respondents consider only three features critical or very important: ad-hoc query, data visualization, and data quality. Overall, half or more of all respondents consider the top 11 features important, very important, or critical.

Cloud BI Feature Requirements

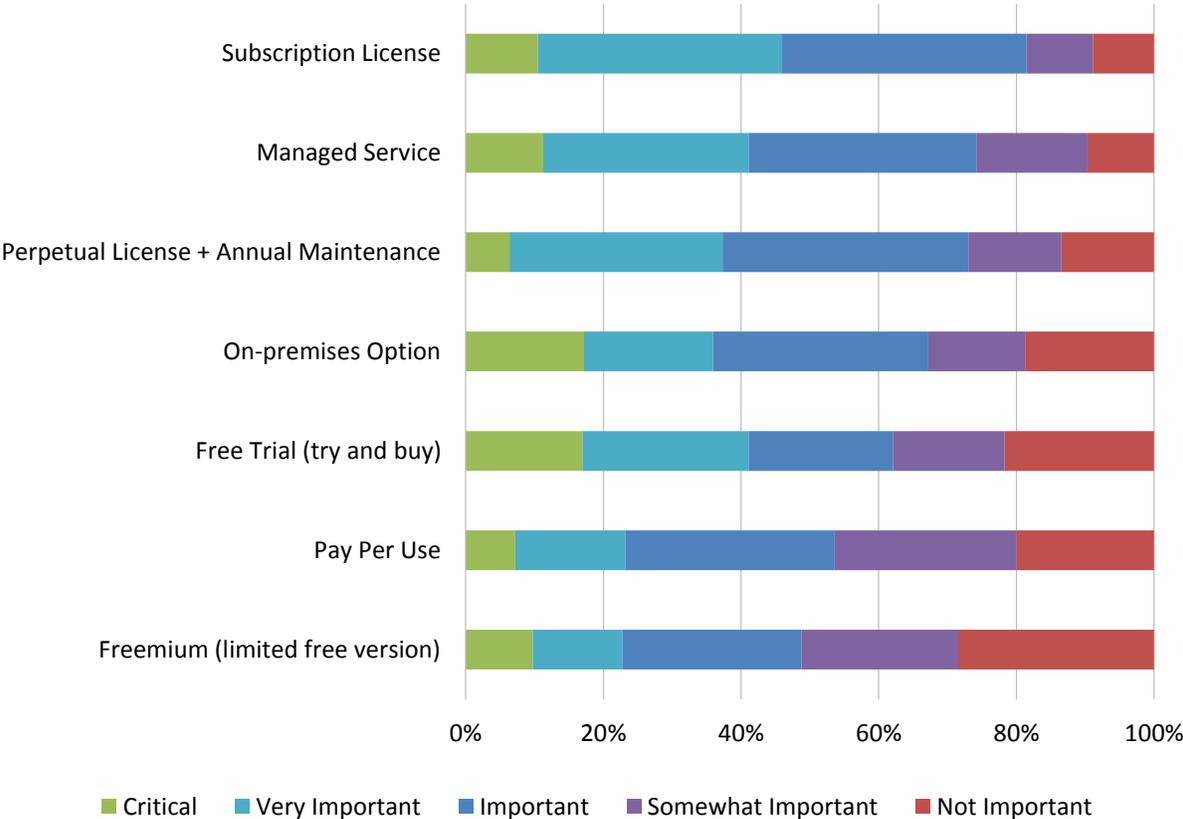


Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

Cloud BI Licensing Preferences Reflect a Desire for Flexibility

In 2021, the subscription-license model nudged ahead of other cloud BI licensing models, with 81 percent of respondents considering it important, very important, or critical. Benefits of a subscription model include lower financial and operational risks, lower entry costs, lower carrying costs, and the flexibility to start, stop, and restart use as business needs dictate.

Cloud BI Licensing Preferences



Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

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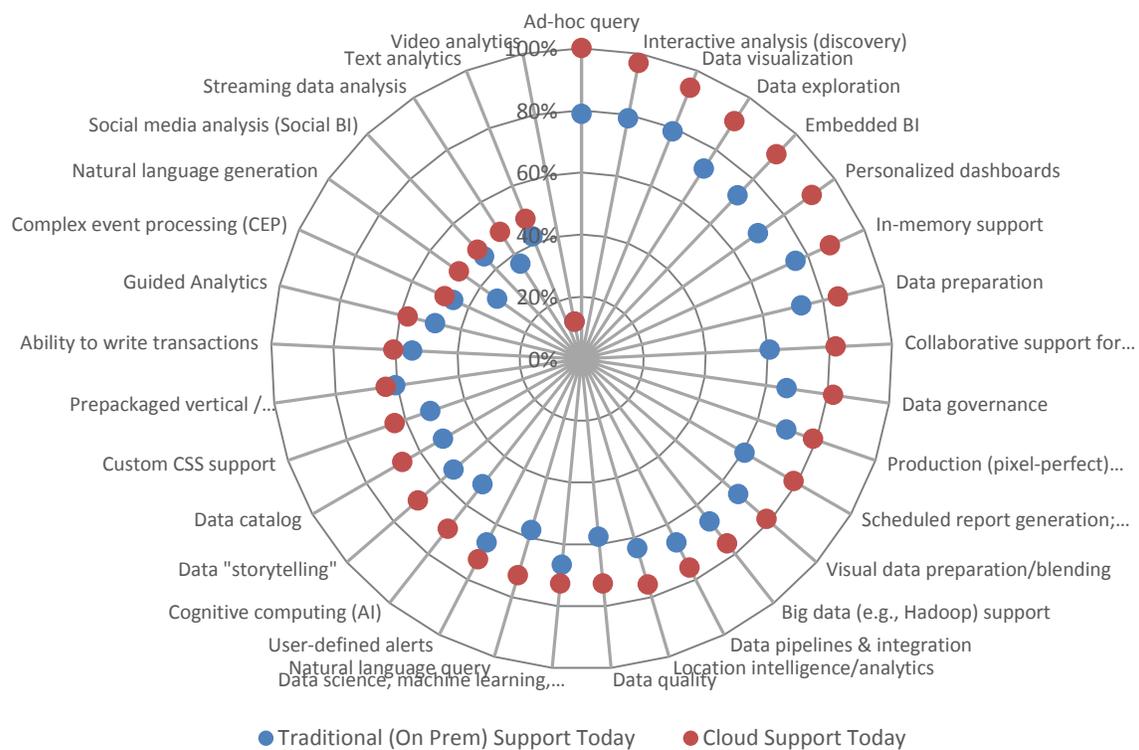
Looking solely at critical and very important responses, the differences in preferences diminish significantly. When excluding the two lowest-rated models (pay per use and freemium), the range tightens even more (from 36 percent for try and buy, to 46 percent for subscription). The “traditional” perpetual license and annual maintenance model remains highly perceived (37 percent of respondents see it as critical or very important).

The concentration of critical and very important sentiment within such a narrow range reflects that organizations want and need significant flexibility in how they license cloud BI. Licensing needs will vary greatly depending on use case and deployment model. For example, on-premises licensing would appeal greatly to organizations committed to private cloud BI. Conversely, subscription licenses would appeal greatly to organizations highly leveraging public-cloud BI or organizations that need flexibility in usage periods (for example, those with highly seasonal businesses). No one model can serve all an organization’s needs; organizations are best served choosing a licensing model that best aligns needs related to deployment, use case, and financial constraints.

Industry Support Strongly Indicates Cloud First

We asked industry respondents to indicate their support for cloud BI features in traditional (on-premises) and cloud deployments. Across every feature, vendors express much higher levels of interest and support for cloud deployment of features vs. traditional on-premises deployment.

Industry Support for Cloud BI Features vs. Traditional BI



Source: 2021 Dresner Advisory Services Cloud Computing and Business Intelligence Market Study

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This means organizations should expect and plan for vendors developing new features as “cloud native,” developed for and delivered in the cloud first, and then adapted or ported to other on-premises environments at a later time. Increasingly organizations also should expect greater delays in releases of on-premises features, compared to when they came out for the cloud, and prepare for the real possibility that certain new or advanced capabilities may become cloud-only features in the near future. As such, organizations with strong commitments to on-premises BI should assign someone to manage an open and highly collaborative relationship with the vendor’s development team (including potentially joining a beta program to test and influence new releases). Furthermore, these organizations should consider seeking written commitments from their vendors for delivery of on-premises features they deem most critical to their businesses.