

The Business Intelligence--Cloud Paradox



Lori MacVittie, 2009-13-08

Simultaneously one of the best use-cases for cloud as well as the worst. What's IT to do?

David Linthicum, SOA and cloud pundit and all-around interesting technology guy, recently [pointed out a short post on business intelligence \(BI\) vendors joining forces with the cloud to offer cloud-based BI services.](#)

Four open-source and proprietary vendors on Wednesday announced a new partnership resulting in a cloud-based BI (business intelligence) stack.

Jaspersoft and Talend will respectively lend their open-source BI and data-integration technologies to the integrated offering, which also employs Vertica's analytic database and RightScale's management software for cloud-based application deployments.

Thought #1: That's a perfect use case for cloud! Business intelligence processing is (a) compute intensive and (b) interval based (periodic processing; BI processing and reports are generally scheduled occurrences). It is a rare organization that builds OLAP cubes and runs ETL processes and generates reports all the time. But when they do, look out, they can bring a server (or three) to their knees.

Thought #2: That's a horrible use case for cloud! The data, though it may be anonymized to remove personally identifiable information/account data, is *still* sensitive. It's not any one field or combination of fields that are sensitive, it's the *whole data set*. That combination of data is used to make business decisions, analyze business performance, and provides a great view of an organization's current operating and financial status. That kind of data is not something you want shared outside the organization.

WHY IS THE DATA SO IMPORTANT?

Some of the data used for business intelligence and data mining operations is not all that interesting. But some of it contains the very data from which businesses can and do make very critical business-oriented decisions. Some of the data being analyzed consists of sales and demographics: past, present, and future. Some of that data can be interpreted as information about the financial health of an organization which, for some companies, is not something that should be handed off to a third-party without some fairly stringent assurances regarding the security of that data both from prying eyes and theft.

The [last time I took a hard look at BI solutions](#) I managed to convince the powers that be to ship me a copy of the subscription database. To a publishing company the subscription database, and all the data that describes those subscribers, is a goldmine. Even though I then worked for the same organization and the testing was being conducted in an isolated environment the data was stripped, masked, and as anonymized as possible lest it "leak" out into the real world. It was that important to the organization that the data be safe that most of the juicy bits were effectively gone by the time I got my hands on it.

This is not an uncommon scenario. The data often churned through by business intelligence systems is extremely sensitive and crucial to the day-to-day decisions made regarding the business. This is not *just* sales data, it's the keys to the kingdom, effectively. For a competitor to get their hands on that data would be disastrous. Thus, it is hard to believe any organization would trust a third-party provider with that data.

Not sure about that? Remember that BI systems and reports are supposed to enable business decision makers to answer questions like:

- What product is selling well and at what price point in area X?
- What are buyers in demographic Y currently spending their dollars on?
- Who buys products like Z?

Imagine a fierce competitor getting their hands on *that* data, and what they could do with it. Consider the impact on the organization if competing businesses can answer those questions for both themselves *and* your organization? “Not good” would be an understatement.

But the fact is that such systems *are* the perfect use-case for cloud given their periodic and highly compute intensive demands on the data center.

A SOLUTION: PRIVATE CLOUD



If ever there was a good use-case scenario for a private, internal cloud BI systems are it. The ability to consume additional resources, on-demand across the data center in a distributed way would certainly decrease the overall operating *and* capital expenses often associated with business intelligence initiatives and the data – the very important, sensitive data – would remain safely locked up within the confines a data center over which the organization has complete (one hopes) control.

Now, given the mix of vendors involved in the aforementioned venture that kicked off this quandary, it appears to be the case that this will be an offering more along the lines of [Salesforce.com](https://www.salesforce.com). Salesforce has, of course, done well with ensuring the security of its sensitive data and providing the isolation required by many customers to trust essentially outsourcing such a business-critical function (SFA). Seriously – when have you heard of a breach in Salesforce security leading to data leakage? Exactly. So it is not beyond imagining that a BI-related venture based on a similar shared platform/isolated data (multi-tenant) model might entice some away from investing in expensive hardware and software to support BI efforts internally.

The difference between the data housed in Salesforce and data shoved into BI systems, however, is enough to continue to be cautious about pushing such responsibility off to the cloud. This really isn't about the security of the cloud, it's about the value – and risk – of the data to the organization, and whether the potential savings would offset the risk. Many organizations are likely to say “no, no it doesn't.” Thus it is a good idea to consider the potential benefits of building out an internal cloud instead. With [a quarter of IT executives recently surveyed initiating private cloud implementations in 2009](#) anyway, it makes sense to look to BI as a possible early contender for deployment in an internal cloud-based architecture.



- [HPC Survey: Over a Quarter of IT Execs Plan to Introduce Private Clouds in 2009](#)
- [Business Intelligence Suites – Enterprise Applications – Network Computing](#)
- [Open-source, proprietary vendors partner on cloud-based BI](#)
- [Cloud Security is not Cloud Security!](#)
- [And the Killer App for Private Cloud Computing Is...](#)
- [Cloud Strategy: Apathy or Architecture?](#)
- [Why can't clouds be inside \(the data center\)?](#)
- [Cloud Computing: Location is important, but not the way you think](#)
- [The Context-Aware Cloud](#)
- [Cloud Computing: It's the destination, not the journey that is important](#)
- [The Three "Itys" of Cloud Computing](#)

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