

A BPM Partners White Paper

Cloud or On-Premises: Choose the Best Architecture for Performance Management

The shift to cloud-based BPM is under way, but weigh the issues of functionality, vendor capability, environment and cost before locking into a method of deployment.

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Executive Summary

The progression toward cloud-based solutions in enterprise applications is seen in almost every software category. More vendors of business performance management (BPM or CPM, for corporate performance management) software offer a choice, and every company should compare its architecture options before locking in the final decision.

Organizations have moved to cloud applications for lower total cost of ownership, fast deployment, less maintenance, and ease of use for line-of-business staff. Nevertheless, not every organization wants the cloud for its performance management systems; their reasons include keeping control, integration with other apps, data privacy, security, and the related impact on the true cost of a cloud deployment. Cloud-based and hosted versions of software offer full or nearly identical functionality for most BPM processes.

Security issues no longer deter most companies from using cloud-based apps. Moreover, BPM applications are probably not the quick-payoff target that criminal organizations tend to attack. They don't contain customer usernames, passwords, gift card balances, or credit card data.

Nevertheless, government agencies, healthcare organizations, and financial institutions often handle sensitive data and some prefer on-premises software for internal control.

Upgrades can present a control issue. Not everyone wants an upgrade in the middle of closing the books. The advantage of cloud vendors in terms of frequent upgrades appears to have diminished. New on-premises applications typically offer smaller, more frequent upgrades (requiring less maintenance) than formerly, in part to keep up with cloud rivals.

Cloud-based solutions do not always offer a cost advantage. Over time, the cost of subscriptions can exceed perpetual license fees and other on-premises costs. Our Pulse survey indicates that 40% of users of cloud BPM realized no cost advantage, but two-thirds did deploy and configure cloud BPM applications faster.

Integration costs, extensibility, and adaptability play into the architecture choice. One now sees what could be called new-generation on-premises, with subscription pricing, frequent upgrades and patches, and configuration-based fast deployment.

Some large vendors chose to cloud-enable modules from their on-premises suite, retaining their legacy application code. Others also offer hosted versions, a variation of cloud architecture. The experience of older software companies in solving the BPM challenges of many customers, over years, may be difficult for cloud-only vendors to match.

Users have choices in performance management software. Functionality and vendor capability to deliver the needed capabilities should be the top two criteria.

This white paper compares the benefits of CPM solutions based on cloud (including hosted applications) architecture with those of on-premises design.

Introduction: Priorities, then Architecture

Organizations have been moving to cloud applications for well-known reasons: fast time to value, lower total cost of ownership, and applications that are simpler to operate.

There are specific situations where an organization will have a predisposition to a particular architecture.

Some vendors offer the same code base, or at least equal functionality, across their cloud, hosted, and on-premises versions. No company should commit to an architecture for corporate performance management (CPM) without looking at the pros and cons.

Indisputably, choice is good. Functionality is, in almost all cases, the first priority. Cost, deployment time, independence from IT, and the vendor's track record of solving problems relevant to the customer are also important criteria.

Cloud and On-Premises Compared

Potential users of cloud-based BPM should understand key differences of the different architectures, and have clarity on the choice they will make between:

- an on-premises solution hosted specifically for the customer by the vendor through a third-party.
- an on-premises, internally hosted and operated application.
- a SaaS, cloud solution provided as the standard approach for all of a vendor's customers.

The comparisons in the following pages represent the current opinion of BPM Partners, based on current vendor capabilities and products.

Terminology: CPM, BPM, and EPM

In this white paper, CPM and BPM are used interchangeably to refer to corporate performance management, also known as business performance management, or – less frequently – as enterprise performance management (EPM).

Cloud-enabled modules and hosted applications

Some vendors of on-premises applications have also cloud-enabled specific modules from their on-premises BPM / CPM suite. These are usually delivered as hosted applications.

Retaining legacy application code, of course, helps the vendor make its own transition toward cloud. It can also help the customer in some cases by combining convenient access with deep, thoroughly tested functionality and support experience.

Equivalent Functionality for Any Architecture

In the BPM market, cloud-based solutions have caught up with their on-premises rivals in features and capabilities. There is now rough parity between cloud-based BPM solutions and on-premises solutions in functionality, across most modules. A notable exception is consolidation, which happens to be a BPM process where most – but not all – cloud-based applications still have some catching up to do, in terms of functionality and providing a full enterprise solution.

More than features should be counted when judging functionality

Functionality is more than features and goes beyond what you read in a Capabilities document or Functional Spec. It should be taken – and evaluated – in a broader sense, because it actually includes the vendor's current ability to deliver the features and functionality that match the company's requirements. Its final form also encompasses whether the customer can get the application installed, deployed, and rolled out – and operating properly. This depends in part on the software vendor's experience and track record in solving the performance management problems of its customers.

Product capability and functionality comparison

	On-premises	Cloud
Full suite available	Yes	Yes
Unlimited # of users	Yes	Yes
Unlimited database	Yes	Yes
Vendor ability to deliver solution fit to unique requirements / processes	Yes	Not always – check
Well-defined product roadmap	Yes	Yes

Those considering a BPM / CPM solution should also weigh the issues described below.

Security

Security issues with cloud-based enterprise software vendors are no longer a deterrent to most companies. They trust cloud providers, in part because the core business of the SaaS application provider depends 100% on maintaining security standards and measures and staying ahead of hackers. Companies with extensive security resources and strict internal standards may prefer on-premises and hosted. They trust their internal security, and are reluctant to pay a SaaS vendor to duplicate it.

While companies must keep their financial reporting secure, as a practical matter, BPM applications are not the quick-payoff target that criminal organizations tend to attack, because quick monetization of hijacked BPM processes and data seems unlikely.

Security comparison

	On-premises	Cloud
Immediate security patches	In some cases	In most cases
Third-party audits	In some cases	In most cases
Penetration testing	In some cases	In most cases
Designed with security as an overriding priority	No	Yes
Inside the firewall	Yes	No

Cost Factors

In the selection process, check the full set of cost drivers carefully and project your possible usage scenarios. Wider adoption is typical of cloud applications and doesn't come free; the additional seats can push up total costs substantially and cloud vendors will often charge further fees for additional modules, and for added data storage. There are benefits that come with wider usage, but companies should be aware of the tipping point between the alternatives. In some scenarios, at three years the cost advantage switches from cloud to on-premises. In part, this is because the number of cloud users tends to rise over time, increasing the subscription fee.

Private versus public datacenter

It's also worth noting that some vendors make their cloud-based solution available via their own datacenter. This contrasts with cloud solutions that are made available through large data centers such as AWS (Amazon) and Azure (Microsoft). The latter can provide a lower cost per user, due to economies of scale, and also tend to be more able to implement new cloud-related technology.

Among actual users of cloud BPM, **42% did *not* achieve lower total cost, compared to on-premises.**¹ Interpreting the survey results, one should take into account that respondents who are current users of cloud-based CPM are more likely to be in the first few years of using this architecture, and may eventually reach the tipping point, cost-

¹ 2015 Pulse Survey by BPM Partners

wise. In other words, over time, the percentage who found a cost advantage with cloud may be reduced.

Cost and Business Value Comparison: Cloud versus Newer-Generation On-Premises

Value	On-premises software	Cloud-based & cloud-enabled
Lower total cost of ownership	Estimated at approximately 40% of cases	Yes, estimated at 60% of cases
Subscription	With a minority of vendors	Yes
Finance-owned	Evolving with Finance less reliant on IT	Yes, in most cases
Fast time to value	More vendors striving for quick implementation	Yes

Subscription pricing

Cloud vendors typically price on an annual subscription basis. Some vendors offer deep discounts in exchange for paying ahead for multiple years. While this usually makes for a lower total cost to the user, prepaying for the year can be a hefty outlay. Blurring the cost comparison options, some vendors now offer subscription pricing to certain customers, or all customers, for on-premises versions. In some cases, this option only appears on the table when a vendor hears, “There’s no way we can get budget approval for an up-front license; we have to do this as an operating expense or it’s a non-starter.”

Integration with Other Applications

Users of BPM systems rate ease and cost of integration with their on-premises and cloud-based applications as very important. The following integration cost and deployment issues should be considered:

- Write-back
- Drill-through
- Replication
- Number of connections
- Frequency of updates
- Volume of data

High Availability and Performance

Customers often raise the issue of how the cloud vendor allocates resources, and what happens in a demand spike.

Availability and performance

	On-premises	Cloud-based
Performance maintained despite adding users or data	No	Yes, except for hosted applications
Vendor SLA for uptime	No	Yes
Vendor proactively monitors performance and availability	No	Yes
Redundant data centers	No	Yes, in most cases
Hourly backups	No	Yes, in most cases

The cloud provider will usually provide easily verified measures to gauge availability. Actual users of cloud BPM cite downtime (26%) more than any other negative in 2015, but in 2016 that retreated to just 7.3%.

Upgrades

	On-Premises	Cloud-based
Always on latest software version	No	Yes (it's required), but may vary for hosted application
Pace of innovation (frequency of upgrades)	6 to 12 months, longer for some	Quarterly, in most cases
Vendor fully responsible for upgrades	No	Yes – customer should have option to test the upgrade in a Test Environment

Frequency / upgrades without prior notice

Though the ease of updating on-premises deployments has improved dramatically, cloud applications are usually updated more frequently. Customers may or may not find this advantageous. Some see a risk with upgrades, especially if they are deployed during a critical time period, such as closing and reporting. That said, 82% of users of cloud BPM responded in the Pulse Survey that they appreciate easy updates.

Responsiveness to tablets and other mobile devices

87% of 2015 Pulse respondents that already use cloud-based BPM cited mobile access as a benefit of their BPM solution. It is however worth noting that many newer-generation on-premises solutions also provide mobile access.

Users Respond on Cost, Independence from IT, and Security

BPM Partners focused on cloud in performance management in the Pulse Surveys from 2013 through 2016. We found that lower total cost, followed by reduced reliance on IT, are consistently the leading reasons companies have accepted cloud-based performance management versus on-premises software.

Independence and burden on IT

Many IT groups endorse cloud applications to lighten their own workload, and encourage self-sufficiency for Finance and other users of performance management. IT teams typically want to reduce their maintenance and tedious report-building burden.

For the organization that wants end users to set up and modify their own models, budgets, and reports, the cloud solution is likely to have easier reporting options built in. Many companies are IT resource-constrained, and cloud-based solutions usually help overcome that limitation, meaning that Finance can generate most reports and analysis that it needs, on its own.

Less inclined to the cloud

In 2015 and again in 2016, we found that a miniscule 5% of companies are closed off to all options except cloud solutions for BPM. Only 7% are opposed to the cloud. The other 88% already have cloud BPM, or would consider it.

The top reason companies oppose cloud for CPM is still security, cited by 68% of this group in 2015. The next most common reasons: 37% cite integration with other apps, and somewhat surprisingly, 37% cite company culture. In 2016 results, we found that integration concerns had abated somewhat, but the staunch holdouts still cited company culture.

Widely accepted opinion about cloud-based solutions

In both IT and on the business side, there is growing acceptance of the following:

- Cloud-based BPM offerings match or nearly match on-premises functionality. Even consolidation is now roughly equal for some true cloud vendors, although only 10% (2016 survey) have cloud-based consolidation.
- Security for cloud solutions is an overriding priority for vendors, and they have done a good job at it.

- Though vendors of on-premises CPM solutions have improved their code, functionality, and frequency of updates, the ease of updates is cited by 82% of cloud BPM users.

A Look at Financial Services

The “holdouts” to cloud adoption for CPM are most prevalent in government, healthcare, and financial services.

In addition, larger companies which already have a substantial investment in IT resources, legacy on-premises solutions, and privacy concerns are seen to favor on-premises deployment. Larger organizations tend to have greater hesitation about moving their financial data to servers outside of their direct control.

In the 2015 Pulse Survey, financial services organizations that answered said:

- 32% did not expect to consider the cloud for BPM in the future.
- Of this group, 100% cited security as a reason to not consider cloud.
- 90% drew data for BPM from a transactional system.
- Only 32% drew data for BPM from a cloud-based system.
- Nearly all cited improved management reporting as a top or leading selection criteria.
- 42% said the deployment architecture didn’t matter; that functionality came first.
- On-premises and cloud-based applications are equally popular in this industry, at 42% each, for budgeting and planning.

Which Type of Vendor

If functionality should be the top selection criteria, then the vendor's ability to ensure functionality meets your needs will outweigh a general preference for cloud or aversion to it. This suggests it is more important to look at the vendor's track record, cumulative experience and current capability to extend and customize the solution to your BPM requirements.

Newer, cloud-based software providers may have highly experienced staff and good capability fit, so don't dismiss them if you have specialized needs. Conversations with their customers may be the best research to rely on.

Of Pulse Survey respondents:

- 21.5% would only consider a cloud-only vendor (2015), but this jumped to 32% in 2016.
- 18% to 20% prefer a vendor with multiple deployment choices
- 61% would consider anyone with the best product for their needs; this finding dropped to 48% in 2016.

Very few worry about security gaps with cloud applications

Actual users of cloud BPM answering the 2015 Pulse survey showed little concern over negatives to cloud architecture. Half saw no downside whatsoever. One-quarter mentioned downtime. One-third mentioned "other" downsides and only 3% even mentioned security as a downside.

Benefits cited by users of cloud-based BPM

We found satisfaction high among cloud-based users. 87% cited anytime, anywhere access as a plus. 82% cited "easy" updates and 74% mentioned ease of use. Faster implementation was important to 71%. In both 2015 and 2016, about 60% cited lower cost.

Conclusions

Organizations considering new CPM / BPM solutions should take time to understand the cost, service, functionality, and operational differences between on-premises systems and cloud-based offerings.

The security concerns about external hosting of software have diminished, due largely to the track record of cloud application providers and realism about gaps in internal IT security.

Some will prefer operating expense to capital expenditure for their software systems, or are heavily influenced by infrastructure requirements. It is not accurate to think that a cloud-based will always be lower-cost. Actual users of cloud BPM report lower costs in three out five cases. Over a period of several years, with the number of seats increasing, a cloud-based application can become more costly (as calculated in TCO) than its on-premises equivalent.

Despite the importance of benefits of cloud architecture in CPM / BPM applications, they can be outweighed in some cases by data protection requirements, cost factors, functionality and vendor capabilities.

Some vendors of on-premises performance management software have sought to offer their software in the cloud marketplace without abandoning their investment in established applications. Some vendors favored web-enablement in specified modules of their suite, or offer their solutions as hosted applications running a separate instance for each customer.

Companies considering a performance management solution should carefully weigh the costs of subscription, licensing, deployment, rollout, training, updates, and integration with other applications. They should assess not only the feature fit, but the vendor's track record and current capability to fit the software to their specific needs and processes. Their own support needs and vendor support resources, availability and downtime, and mobile accessibility are also key factors.

These evaluation criteria should take priority over architecture considerations.

About BPM Partners

BPM Partners is the leading independent authority on business performance management (BPM) and related business intelligence solutions. The company helps organizations address their budgeting, planning, financial reporting, regulatory compliance, profitability optimization, key performance indicator (KPI) development, and operational performance challenges with vendor-neutral experts who can guide companies through their BPM initiatives from start to finish while both reducing risk and minimizing costs. For further details, go to <http://www.bpmpartners.com>. Follow BPM Partners on Twitter [@BPMTeam](#).

About Prophix

Prophix develops innovative Corporate Performance Management (CPM) software that automates critical financial processes such as budgeting, planning, consolidation, and reporting—improving a company’s profitability and minimizing their risk. Prophix provides you with the right balance of simplicity and depth, delivering CPM software that is easy, powerful, and collaborative. For everyone. Thousands of innovative organizations in nearly one hundred countries use Prophix to gain increased visibility and insight into their business performance.