

A photograph of a man and a woman sitting at a desk in an office. The woman, on the left, is wearing a white t-shirt and has her hair pulled back. The man, on the right, is wearing a blue and white striped button-down shirt and a watch. They are both smiling and looking towards the camera. In front of them is a laptop and some papers with charts. The background is a bright, out-of-focus office space.

Cloud Software Considerations for the Nonprofit CFO

Introduction: Moving Mission-Critical Financial Applications to the Cloud

In recent years, the cloud computing market has experienced a remarkable surge in growth, and it is transforming the way people communicate and do business. Gartner recently published data that shows that the worldwide public cloud services market is expected to grow from \$209 billion in 2016 to \$383 billion by 2020. Despite this global shift to the cloud, a number of concerns remain for first-time cloud adopters, especially for those who manage applications with sensitive data. System security tops the list of concerns that also includes accessibility, reliability, total cost of ownership of cloud services, and applications.

These are valid concerns for any CFO considering the cloud for their organization's critical financial applications. It's crucial to ensure that new technology investments will help advance the goals of the nonprofit without jeopardizing the existing continuity and integrity of the financial office. Fortunately, as the cloud becomes more advanced, so do innovations in cloud technology that lead to tangible benefits for customers, including greater operational efficiency, lower total cost of ownership, and stronger data security.

Selecting the best cloud software for your organization begins with finding proven vendors who have expertise in delivering solutions to the nonprofit sector. A cloud vendor whose primary focus lies elsewhere may fall short in meeting the needs of your organization, especially when it comes to your core financial applications. The best choice is a vendor who understands the technology and business needs of nonprofits in a way that adds value to your organization.

Regardless of industry focus, there are a few fundamental concepts of cloud computing that must be considered when reviewing cloud-based applications for your organization. Your vendor should be able to exhibit demonstrable proof in mastering these core capabilities. Otherwise, trusting their services may introduce risk to your mission, financials, and reputation.

In this whitepaper, we will discuss some of the primary benefits of cloud software and what you should expect from a best-in-class vendor.

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Payment Card Industry Data Security Standard (PCI DSS) certification is aimed at reducing the risk of payment card transactions by requiring merchants and service providers to follow key security standards in networking, systems, and application development.

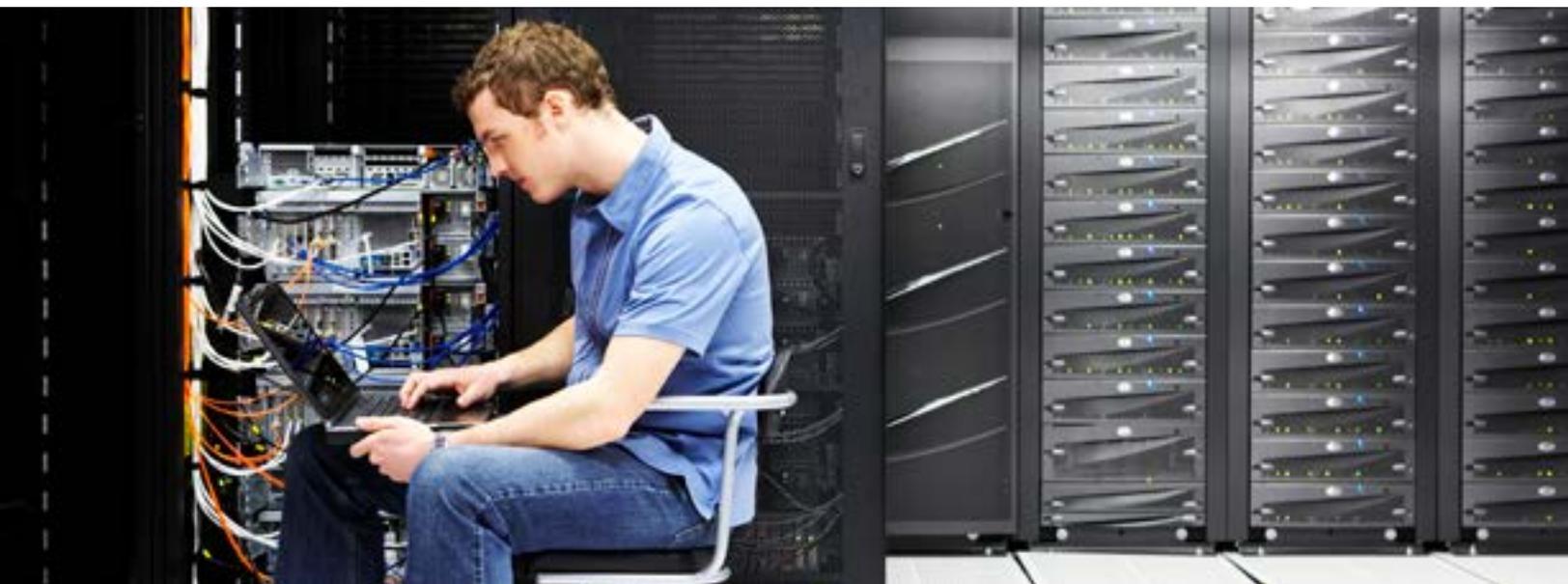
Service Organization Control (SOC) reports focus on a cloud vendor's controls relevant to financial statements (SOC 1) and nonfinancial controls (SOC 2) relating to the security, availability, processing, integrity, confidentiality, and privacy of a system.

Data Security

Nonprofits are accountable to a variety of important stakeholders and are entrusted with funds designated for life-changing purposes. As a financial leader, you're under particular pressure to ensure that sensitive financial and personal data is secure. In fact, your organization is held to such a high standard of integrity that a single data breach could be devastating to the organization and your career. That's why it's important to work with a cloud vendor that enforces rigorous controls and compliance with standards such as PCI DSS, SOC (Statement of Control) reports, ISO/IEC 27002:2013, and other credible security frameworks.

These standards exist to govern security, privacy, and the overall integrity of cloud services. Managing them and designing and implementing appropriate controls to address them requires significant resources in terms of personnel and capital expenses. Therefore, adherence to these attestations validates that the vendor has suitable practices and technology in place covering a broad range of security areas such as authentication, continuous monitoring, physical safeguards, intrusion detection, and data retention to meet the needs of most nonprofits.

Cloud security is a complex, continuous process, so your vendors should place an emphasis on maintaining compliance with these widely accepted standards to ensure secure, private services even as threats become more sophisticated.



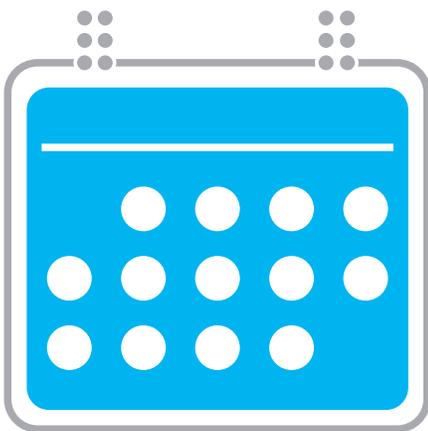
Availability

While ensuring your financial information is protected from unwanted access, you also need to seek out maximum availability for your authorized users. The industry standard for system uptime—the amount of time your service is available—is 99.9%, which translates to just under 45 minutes of scheduled downtime per month.

Scheduled downtime events, such as maintenance and application enhancements, should be outside of your peak business hours and with advance notice to have minimal impact to your operations. For unscheduled events, such as outages, the burden is on your provider to demonstrate recovery procedures that can return service as quickly as possible, prevent future interruptions of the same nature, and be transparent to those impacted.

Major outages at some of the world's largest cloud companies demonstrate that no provider can guarantee 100% uptime and that failures—for established cloud companies—are still considered newsworthy. Amazon Web Services® (AWS) and Salesforce.com® experienced well-publicized outages in 2016 and 2017. However, both cloud services have been shown to be dramatically more reliable than the average self-maintained hardware. All of this said, no statistic will console your financial team members if they lose access to your accounting system at month-end, so significant attention needs to be paid to your vendor's disaster recovery plan.

It's important to note that, although you're utilizing your vendor's infrastructure, your data still belongs to your organization. Understand your provider's policies for providing data copies should you request them or decided to discontinue the use of their services.



Your provider should have clear documentation outlining steps that minimize interruptions. These should include evidence of data and infrastructure redundancy, frequent off-site data backups, explicit defenses for DDoS (Distributed Denial of Service) attacks, and performance designs, such as application load balancing, that can minimize service failures.

Although you're using your vendor's infrastructure, your data still belongs to your organization. Understand your provider's policies for providing data copies if you request them or decide to discontinue the use of their services. Lastly, some software providers using the public cloud may not be able to definitively tell you the location of your production (live) data. If this is critical to your organization, ensure your IT staff is involved in understanding the vendor's database design.



IT Burden

If you've been depending on legacy on-premise ERP or other financial applications, then you know how resource intensive it can be to manage IT software and infrastructure. Nonprofit IT staff are often under-equipped to support shifting business priorities while juggling hectic day-to-day operations. This creates risks to your operational efficiency, which can be impacted by delays in accessing new features or worse, loss of existing technology due to problems like compatibility issues.

Cloud software can eliminate many of these pains, allowing your organization to focus on core competencies. Cloud vendors take on the costs associated with managing IT infrastructure—which include hardware (e.g., servers, networking, and facilities), software (e.g., security, operating system, database), and human capital (e.g., administrators and developers)—and the challenge of ensuring that all these things work together seamlessly.

Nothing changes faster than technology. Nonprofits who hope to keep their IT management in-house are finding it harder to attract, afford, and retain the talent necessary to run an efficient technology stack. Worse still, a poorly managed IT portfolio exposes the organization to security and continuity risks as threats become more sophisticated.

It's worth noting that the labor required to manage software is not all taken on by the IT department. Many nonprofit CFOs find themselves negotiating on behalf of their financial applications for required updates. This can be a nuisance and a disruption to your operating rhythm. Despite having evidence of the importance of financial applications (e.g., general ledger, card processing, and more), CFOs can feel outmatched arguing for financial software updates when they are up against those that impact significantly more end-users (e.g., email or payroll).

These are fundamental drivers for a nonprofit shift to cloud software. Organizations adopting the cloud can relieve themselves from the chains of “version management” and shift their strategic focus and funding to their core mission. With cloud solutions, your vendor manages all product updates and enhancements, so you can regain peace of mind.



Affordability

Cloud services are rented—not owned—and are therefore delivered most often via subscription. This model offers significant and well-documented total cost of ownership advantages over traditional perpetual licenses, including:

- Lower upfront costs—legacy products require heavy upfront capex costs for license purchase
- Flexibility to pay for only what is needed and add functionality or computing capacity on demand
- Alleviation of internal costs associated with IT management
- Extended life of the software through more manageable enhancements and continuous innovation



The largest cost driver, IT management, is often the least understood in purchasing decisions. Some experts have cited as much as 75% of an organization's IT spend is on personnel. The return on investment of software varies by application type and organization, but CFOs should be prepared to understand the true cost of their IT organization and apply that to a five to seven year Net Present Value (NPV) analysis—at minimum—for any financial software decisions.

Subscription costs can be based on factors such as the size of your database, number of users, and the range of features required. While most organizations expect cost savings from cloud adoption, some usage-based pricing models can increase significantly with changes in your operations. Sensitivity analysis can help your organization better understand the risk of cost overrun, but you should be careful not to accept a pricing model that's too elastic. Likewise, be sure to understand any required subscription increases that may be enforced at renewal to ensure that you're getting continued value.

Accounting for Software Expenditures

Factor	On-premise	Cloud computing
Expenditure type	Capital expenditure (capex) Operating expense (opex)	Operating expense (opex)
Cash flow	Upfront expense for hardware and software	Paid over time
Income statement	Maintenance and depreciated capital expense	Maintenance expense only
Balance sheet	Recorded as long-term asset	No impact

Efficiency and Productivity



With the significant time-saving potential that modern web-delivered applications possess, smart software companies should be able to clearly articulate the efficiency gains an organization can expect from their financial solutions. Nonprofits, in particular, tend to operate with lean financial teams, making productivity improvement extremely important in software selection. Well-designed cloud software provides organizations with the ability to automate common business processes and create connected workflows through integration.

Connected workflows can offer significant productivity gains to your financial staff—helping limit manual data entry and associated errors, providing real-time reconciliation options, and automating alerts and approval notifications. With cloud software, you can and should strive to stop all manual data transfer between core systems. Cloud workflows also expedite tasks for non-financial departments that regularly rely on reporting and approvals from your financial staff, relieving bottlenecks across the organization.

To take advantage of the integration capabilities that cloud deployment affords, your software should have a well-documented RESTful Application Programming Interface (API). This API is what allows for secure communication between cloud applications, enabling you to connect business processes across different vendors automatically (e.g., payroll data flowing directly to your general ledger). These integrations give you the flexibility to combine multiple solutions to meet your unique requirements, while allowing for a more seamless workflow. In addition, vendors use these APIs to extend the functionality of their applications out-of-the-box. For example, some accounting applications can connect directly to their customers' financial institutions to automate reconciliation of subsidiary ledgers.

There are many advantages to working with a suite vendor that offers ERP solutions that may include CRM functionality, accounting, and payroll, or other combinations. One advantage is pre-built integrations. However, it's still important to understand your vendor's philosophy on other integrations, should you need changes in the future. Finally, before building your own custom solution using APIs, work with your IT department to understand their level of experience working with APIs, the quality of available API documentation, and whether or not you're comfortable relying on the vendor to assist in building the necessary integrations.

A RESTful API (also known as a RESTful web service) is based on Representational State Transfer (REST) technology—a style of architecture and approach to communications that is frequently used in the development of web services. REST uses less bandwidth than other technologies, making it the current market standard for building APIs that allow users to connect and interact with cloud services.

Accessibility

The cloud offers the ability to access software anywhere, anytime, and on any device. This means that users are no longer tethered to their desks or limited by operating hours. Uninhibited, real-time data access allows for better continuity and communication, especially when unexpected situations arise.

Although traditional financial staff don't tend to see themselves as remote users, distributed workforces are becoming more common everywhere, including the finance office. Cloud applications offer more flexibility for unique work arrangements. In addition, being able to share live information with non-financial users (e.g., department heads, executives, and purchasers) is a great way to boost productivity. Ensure that your solutions make this easy to do with intuitive user interfaces, so you aren't burdened with continuous email requests.



“We want information, and we want it now; we want it instantly. We are a technical school, so [it’s important to have] a software system like Blackbaud that offers us instant reports [and] instant information. When a donor calls and says ‘When was the last time I gave?’ and I’m at home with my kids, I can log on and say, ‘You gave in December.’”

*—Heather Buck,
Director of Finance,
Wake Tech Foundation*

Conclusion

Cloud computing allows for unprecedented rates of innovation, which result in direct benefits for end users. It is clear that many software providers—and customers—are recognizing these benefits and moving away from the days of rigid traditional software and toward more agile cloud solutions. According to “The State of the Nonprofit Cloud,” a survey published in 2016 by NTEN, 100% of respondents are already using at least two cloud services, and more than half of respondents are either currently using or considering adoption of cloud accounting software.

As bandwidth, reliance, and technology improve, savvy CFOs are turning to cloud vendors who have the expertise and scale to deliver technology that meets the criteria outlined in this paper. If your organization is considering a move to the cloud, make sure to partner with a vendor that can deliver these key benefits and has a proven history of serving nonprofit organizations.

“Today’s announcement is evidence that Blackbaud not only successfully transitioned to the cloud, but has emerged as a leader in cloud delivery for the philanthropic space.”

*—Larry Orecklin,
Vice President,
Developer Experience and
Chief Evangelist,
Microsoft Corp.*

Thinking of Moving Your Financial Software to the Cloud?

When you work with Blackbaud, you’re choosing to partner with a technology provider with more than three decades of experience providing innovative, robust solutions created specifically for the nonprofit industry. Our top priority is to provide quality, reliable solutions to our more than 35,000 nonprofit and government customers to help advance their missions through fit-for-purpose financial, fundraising, marketing, analytics, and program-delivery solutions.

We are dedicated to ensuring the security of our entire cloud infrastructure and enforce strict compliance with PCI DSS, SOC 1, SOC 2, and other attestations that speak to the security and performance of our cloud solutions. We also align with ISO/IEC 27002:2013, NIST standards, and the Cloud Security Alliance’s Cloud Controls Matrix (CCM). Our cloud tech experts provide critical monitoring, reporting, instrumentation, automation, troubleshooting, and maintenance to ensure continuous availability. We make sure your solutions are always up-to-date, supported by optimal performance, and backed up in accordance with best practices.

Blackbaud offers mission-critical cloud financial solutions that include accounting, budgeting, tuition and billing management, payment processing, and more. With Financial Edge NXT™, our industry-leading fund accounting solution, organizations can access the best nonprofit financial reporting tools in the cloud. Powerful nonprofit features to manage grant and program reporting, control spending against budget, automate complex allocations, and conduct strategic analysis come standard, which is why over 6,000 nonprofit financial offices rely on Financial Edge NXT to help scale their operations. Financial Edge NXT includes an open, RESTful API and is designed from the ground up with Raiser’s Edge NXT™, the world’s leading fundraising and constituent management solution, streamlining combined development and financial operations.

Although Blackbaud began delivering nonprofit software over thirty years ago, today, we are a leading innovator in nonprofit technology, delivering nearly 1,000 product updates over six months spanning 2016–2017. No matter how technology evolves, Blackbaud is a partner you can trust to bring innovation to nonprofits in today’s world of cloud computing and onward.

About Blackbaud

Blackbaud (NASDAQ: [BLKB](#)) is the world’s leading cloud software company powering social good. Serving the entire social good community—nonprofits, foundations, corporations, education institutions, and individual change agents—Blackbaud connects and empowers organizations to increase their impact through software, services, expertise, and data intelligence. The Blackbaud portfolio is tailored to the unique needs of vertical markets, with solutions for [fundraising and relationship management](#), [digital marketing](#), [advocacy](#), [accounting](#), [payments](#), [analytics](#), [school management](#), [grant management](#), [corporate social responsibility](#), and [volunteerism](#). Serving the industry for more than three decades, Blackbaud is headquartered in Charleston, South Carolina and has operations in the United States, Australia, Canada and the United Kingdom. For more information, visit www.blackbaud.com.

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