

Finding the right cloud solution

A well-thought-out strategy can give you the resources you need

In the information technology (IT) world, few phrases hold as much promise, potential, and confusion as “cloud computing”. Headlines have promised small to mid-sized businesses (SMBs) powerful applications, cost-savings, improved operations, easy scaling for growth and a host of other benefits all there, in the cloud.

Inc.

Advances in cloud-based applications have exploded recently, offering a myriad of opportunities for SMBs. Hosted email, customer relationship management solutions, online backup, accounting platforms, off-site data storage, collaboration tools and many other cloud solutions allow SMBs to purchase powerful, scalable technology solutions to run and grow their businesses largely on an as-needed basis. They can pay for the level of service they need, knowing that they can easily upgrade and increase their demand without investing in expensive enterprise architecture that sits unused as the business “grows into” it. Cloud-based services can offload some of the demands placed on small IT staffs and bring considerably greater resources to the table to help the business develop a plan and strategy for growth.

Understanding the cloud

Before making important decisions about cloud computing and its role in any business, it’s important to understand the concept. For the purposes of this discussion, cloud computing falls into four primary categories:

- **Software-as-a-Service (SaaS).** SaaS is typically an application shared with other users, where a provider hosts and runs the software on its servers. Many companies share the same application, relieved of the responsibility of maintaining the platform and purchasing upgrades. Usually SaaS platforms are delivered over the Internet and require little to no up-front capital investment to get started. SaaS is often confused with cloud computing, although it is only one component of cloud applications, primarily because it is the most prevalent and mature of the cloud sectors. Examples of popular SaaS solutions include: Salesforce.com, a CRM solution; WebEx, an online meeting and collaboration tool; and Google Apps, a suite of email, collaboration, calendar and document development tools.
 - **Infrastructure as a Service (IaaS).** Formerly known as “utility computing,” IaaS lets companies affordably expand their data center operations in a variety of ways. The provider supplies the network and services, billing for the amount of resources used. It can benefit companies that have varying needs for data storage, computer capacity, geographical distribution and other inconsistent demands, which can be caused by a business’ seasonality, growth or distribution of employees. IaaS solutions are typically “instant-on,” allowing a business to increase and decrease their computing power quickly and easily.

Good cloud-computing solutions give you an edge in the marketplace by providing access to big-company technological muscle without prohibitive capital investments. You have a wide range of service options based on your individual needs, industry and technological proficiency.

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- **Platform as a Service (PaaS).** PaaS offerings are a set of reusable components upon which businesses can build business solutions. The provider creates and manages all of the technology tools, including operating system and architecture, to run platforms.

PaaS applications include: document management services, telephone services, video conferencing services and other rich solutions that may be cost-prohibitive for businesses to develop themselves.

- **Managed Services (MS).** Managed services supplement a company's personnel, software, expertise and technology, providing a resource to which everyday operational duties can be outsourced—streamlining operations and helping companies devote their resources to core functions that will grow their businesses. Unlike the outdated application service provider model, cloud-based managed services use the Internet or private network connectivity to deliver their company's unique services directly to customers rather than just hosting and running a program or platform for a customer. Network security and management, document management and infrastructure monitoring are a few examples of managed services. Seventy percent of SMBs “are using, or planning to use, managed or professional IT” services, according to a benchmark report by Nemertes Research, an IT research firm.

What can the cloud do for SMBs?

Good cloud-computing solutions give SMBs an edge in the marketplace by providing access to big-company technological muscle without prohibitive capital investments. Within the four broad parameters of cloud computing, SMBs have a wide range of service options based on their individual needs, industry and technological proficiency.

Some cloud-based applications, especially CRM, hosted email, collaboration, anti-virus and others, are popular with and readily adopted by many businesses. Barriers to entry for these types of services are typically low, as are the investment levels, while interfaces are typically intuitive, attractive and easy to use. Cloud-based options become increasingly robust and sophisticated until some providers resemble outsourced IT departments. Some of the benefits SMBs might realize include:

- **Sophisticated platforms.** Cloud-based applications are often rich in features and regularly enhanced to deliver greater functionality to customers. Because the space is growing rapidly, cloud-based providers face stiff competition—a strong incentive for them to continually improve their offerings. These upgrades are part and parcel of the agreement, and SMBs generally do not need to pay for them, as is customary with traditional software and technology providers.
- **IT support.** Most cloud providers offer tiered levels of service that are bundled with a subscription, instead of an additional fee for support, as is common with many software providers. Based on a company's IT

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resources, it can often choose the amount of support necessary, from a very basic package to one that gives virtually unlimited service. This flexibility helps the SMB manage demands on IT resources and ensures that it only pays for the level of service it needs.

- **Increased collaboration.** Cloud-based tools help SMBs more easily share documents and information. “Road warriors,” telecommuters or anyone else with authorization can use mobile devices and laptops to access data, documents and other information from virtually anywhere. Tools such as webinar and video conferencing platforms facilitate more effective communication, enabling face-to-face discussions and presentations without requiring anyone to travel.
- **Cost savings.** Because cloud-based solutions are shared among many companies, providers can offer rich technology options for a fraction of what a business would need to invest in its own infrastructure to achieve the same result. Instead, businesses pay only for what they use, even if that varies with growth or seasonality.
- **Scalability.** Across the array of offerings, cloud platforms allow businesses to almost instantly increase their applications, storage, processing power and other technology assets to adjust to growth, sales spikes, seasonality or other variations in demand.

Cloud computing applications offer a wide variety of benefits to SMBs, making them an attractive option for growing businesses.

Addressing cloud concerns

Cloud computing is not without its skeptics, who ask a variety of questions about downtime, compatibility and security. However, most of these concerns are left over from the earliest days of cloud computing and have been addressed or debunked by the blinding speed at which cloud applications are developing. Some of these concerns include:

- **Security.** One of the biggest concerns about cloud computing is data security, both physical security and the prevention of the data being breached. Some businesses have a measure of discomfort in moving their data outside of their own offices, and they are concerned about remaining in compliance with privacy laws when it comes to their customers’ information. However, many companies have vulnerable security measures to begin with when data is on site. It may be housed on various computers with few or no access limitations.

Without proper backup and a plan for accessing data in the case of a natural disaster or fire, data could be lost even if it is housed securely. And few SMBs implement the encryption measures that are standard at many cloud computing providers. In recent years, many cloud computing vendors have had to obtain certifications for Payment Card

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Industry Data Security Standards (PCI DSS), Health Insurance Portability and Accountability Act of 1996 (HIPAA), data center standards and other security and privacy measures. Redundancy systems are in place to ensure that if a server is destroyed, the data is housed in more than one place and not lost, and data is protected by multiple layers of encryption, firewalls, anti-intrusion and other protections. Many times, data may be more secure in a cloud-based application than in an on-site location, which does not afford the same standards and protections.

- **Data access and delays.** Some SMBs suffer from mild “separation anxiety” when it comes to their data. If the information is moved off site, what is the guarantee that there will be no delay in accessing it or downtimes when the cloud provider is experiencing technical issues? Again, since this is a question that cloud providers frequently face, cloud providers often have multiple measures in place to ensure that data is available and the service is running, even if a server goes down or some other technical issue arises. Depending on how critical the service is to the business, cloud providers may offer a service agreement to ensure additional measures are taken to ensure availability, and it may be a good idea to look for a Tier 1 service provider whose architecture and staff are devoted to decreasing downtime and servicing business needs.
- **Compatibility.** Businesses that cherry-pick services, choosing individual, cloud-based applications and services as needed, may find compatibility issues arise. For example, a company that is using hosted email, CRM, cloud storage and hosted accounting services may find that data is housed in various cloud applications and isn’t seamlessly updated or integrated. Consultants or full-service cloud providers can help here, ensuring compatibility of services, providing knowledge of the latest and most suitable offerings, and adhering to an overall cloud computing strategy.

Creating a cloud computing strategy

No matter what stage you are in with your cloud computing adoption, it is important to have an overall cloud strategy. How will cloud applications fit into your business now and accommodate growth in the future?

Crafting a strategy requires a few key steps.

- **Take inventory of your current applications.** What technology tools does your business use to conduct its day-to-day operations? Email, computing power, accounting software and CRM are common to most businesses. Service and creative businesses may need collaboration tools. E-commerce or retail businesses may need tools to support order and inventory management.
- **Explore options.** Once you have a list of your current applications, begin looking at comparable cloud offerings and weighing their advantages. Can they improve performance, save money or allow your business to redirect resources to core functions? If so, they’re probably worth exploring.

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- **Consider costs.** When evaluating the potential cost-savings of cloud-based applications, it can be tempting to simply look at the low cost of access. However, there are often some hidden, up-front costs and productivity decreases that must be considered. When planning a cloud strategy, the effort and time needed to migrate data, as well as a slower pace of operations as employees learn the application, must be taken into consideration. However, these challenges are often overcome within a short period of time and are seldom enough to outweigh overall cost savings.
- **Look to the future.** How quickly is your company growing? Do you experience seasonal or periodic fluctuations that increase or decrease demand on your computing power or applications? Is the geographic distribution of your workforce changing, possibly including more mobile employees who need ready access to information, documents and customer data? Such changes in your business can be expensive and demanding to support internally. An experienced cloud computing provider can help you anticipate the needs of your growing company and plan for them—usually without tying up your capital in expensive technology investments.
- **Find the right provider.** Whether your company is looking at a single cloud service as a trial or is ready to explore all the cloud has to offer, choosing the right cloud service provider or providers is an important part of your cloud computing plan. Look at the overall skill sets of the provider's team. How can your service provider help you manage and integrate your cloud-based applications and services? Does the provider offer a range of service levels to allow you to purchase only the support you need but have options for your business to upgrade levels of service in the future, as you grow, decreasing the amount you need to spend on internal staff, hardware and software?
- **Ask questions.** Your cloud service provider should be prepared to answer in-depth questions about the product, its ease of use and its integration capabilities with other tools your business uses, as well as the company itself, its history, its resources and its continuity guarantees. Ask for customer testimonials or references, and be sure to search online for feedback about the company, its service and its financial stability. After all, completing a migration to a cloud service only to find out that the company went under or was acquired by a less reputable service provider is very bad news. Get specifics about how the company will support your business during the transition to a cloud-based service, as well as how it prevents service interruptions and protects your data.
- **Get the right agreement.** Most cloud providers have tiered levels of service and enhanced options to protect your data and operations, depending on how critical they are to your business. These are

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reflected in the service level agreement (SLA), which covers the specific levels of service and any guarantees made by the provider. It is important that any assurances you are given by the cloud service provider be reflected in your SLA, including response time, technical support, migration support and provisions for outages and downtime. Your SLA should also clearly spell out ownership of data and what will happen if you decide to stop using the service, including support expectations for the migration to a new service or back in-house.

- **Manage the relationship.** Determine the internal resources that will be devoted to the cloud migration and during what timeline. In addition, look at the relationship with a longer-term focus: Who will oversee the cloud provider, and what will the in-house responsibilities be for cloud monitoring and maintenance over the long-term? By what benchmarks will success be measured, and what will happen if the service does not perform as expected? The best time to make plans for the worst-case scenario is before it happens.

Cloud computing offers SMBs access to powerful, scalable computing services. This can be a distinct competitive advantage for start-ups, small companies and mid-market operations that may not have the capital to invest in expensive IT infrastructure. The key to a successful cloud migration is to carefully evaluate the benefits against the costs and to choose a service provider with a healthy balance sheet, a robust service level offering and a long track record of helping SMBs with their cloud operations. Through careful analysis, rigorous questioning and thoughtful planning, SMBs can create a cloud strategy that will support and grow their companies for years to come.

Extend your it infrastructure with the cloud

CenturyLink can work with you and your company to build a customized cloud-computing solution designed to meet your specific IT challenges and requirements. From scalable applications and data and network security to compute-on-demand services and more, CenturyLink offers the affordable solutions that can put all the benefits of the cloud to work for your business.

Learn more about [CenturyLink cloud computing solutions](#) and the ways they work in a wide range of business applications.

To drill further down into cloud computing and a host of other IT issues of critical importance to small business, check out [CenturyLink SMB IT Connection LinkedIn community](#). It's a group of more than 1,500 professionals representing small and medium-sized businesses engaged in discussions about the latest thinking in cloud computing, security, business continuity, disaster recovery, employee productivity solutions and much more.

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