

# BUILDING A **CLOUD** **IMPLEMENTATION** **STRATEGY**

A business investment with immediate payback





**INTRODUCTION:**

# **INVEST IN MORE IN YOUR BUSINESS AND LESS IN INFORMATION TECHNOLOGY**

For most small and mid-sized businesses the future is all about growth, and a cloud-based approach to information technology is inherently supportive of growth strategies.

“Utilizing capital or allocating resources to manage IT solutions is a distraction from their core business,” says Todd Goodbinder, national vice president of sales at Comcast Business. “Businesses get a much bigger benefit taking their dollars and investing them in their business rather than adopting an IT solution that will be outdated within a year or so—not to mention the associated maintenance or upgrade costs that come with managing an IT solution in house.”

## ADVANTAGES OF MIGRATING TO THE CLOUD

Small and medium-sized businesses are probably the greatest potential beneficiaries of the cloud—and especially of Software-as-a-Service (SaaS)—among all types of businesses, says Eric Morgan, chief executive officer of AtTask, an Inc. 500 company that provides a cloud-based enterprise work management solution combining social media techniques with traditional project management capabilities.

“Think about it: Our clients with several hundred employees are enjoying the same robust, secure, high-performance platform and infrastructure as our Fortune 500 clients with tens of thousands of employees. To replicate that would not only be cost-prohibitive, it would be highly challenging to pull off.” Cloud-based IT strategies can reduce overhead costs and return faster time to value, while quicker upgrade cycles allow SMBs to stay current on the latest features, he adds.

Running an SMB on the cloud can be much less expensive than using a data center or an independent server, points out Eric Dynowski, chief executive officer and president of IT consulting firm Turing Group. The primary reason is that a cloud-based business no longer has to buy and run all the infrastructure equipment; that cost is now shared among many different users. “However, it’s important to remember that pricing is unique to each company and depends on user demand and workload,” he cautions. “The cloud is not a ‘set it and forget it’ solution.” For example, most cloud-based businesses are aware they can quickly and easily add more computing power—often with just a mouse click or two—and are quick to do so when needed, but fewer also think to scale down on computing power when there is less need for it. “Making or not making adjustments can have a large impact on the bill at the end of the month,” Dynowski warns. In worst-case scenarios, what started out as an inexpensive cloud solution can turn into something quite pricey.

To be sure, affordability is a major driver of SMBs’ accelerating migration to the cloud. As Karyn Price, industry analyst at Stratecast, Frost & Sullivan’s telecommunications strategic forecasting practice, puts it, “The cloud’s ‘pay as you use’ model reduces or eliminates capital expenditures and optimizes IT



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spend on usage, making it more attainable for businesses in the small to mid-sized spectrum to procure the services they require and be competitive in today's global business market.”

## ACCESSIBILITY, PRODUCTIVITY, EFFICIENCY ARE ALSO DRIVERS

However, affordability is not the only advantage the cloud offers. Another big one is accessibility. The cloud is often a self-service environment, using a marketplace or “app store” model to present services to customers, which is an excellent way for SMBs with some IT know-how to procure services with little or no interference from the vendor. “The marketplace model allows IT to preselect services available for use in the company—sometimes down to the specific subset or department—and to configure access parameters for the marketplace as a whole to ensure security and compliance,” Price explains. It allows IT to retain control over the most critical functions that can threaten the business if not properly managed, while at the same time opening “a modicum of self-service” to line-of-business managers who best know their own goals, budget, and needs, she says.

Cloud environments are great for SMBs because they can be managed from anywhere, anytime through Web portals, says Shawn Mills, president and founder of Green House Data, a cloud hosting, co-location, and managed IT provider focused on sustainability and service. “If a company is implementing PaaS (Platform-as-a-Service) or SaaS, even users who aren't tech-savvy can log in and take advantage of cloud-based tools. They can use them whether or not they are on the company network or a company device, enabling greater flexibility. Company data, applications, emails, even desktops can all be more accessible in the cloud,” he says.

Potential increases to productivity and efficiency are another big draw of cloud computing for SMBs. “First and foremost, it is a solution that is up and running from day one,” Goodbinder stresses. “When a business decides it is ready to make the switch, it does not have to wait for something to be ordered or installed; essentially, it just needs to be turned on.” Mills singles out the boost cloud services can give to SMB IT teams. “Now they can focus on supporting employees and building products to grow the business rather than installing and maintaining infrastructure. Automated processes are simple with most cloud management tools, whether that means patching or backup,” he says. Cloud solutions typically include disaster recovery services that ensure cloud data is always backed up and ready to be restored, and that keeps businesses running in the event of downtime or destruction of infrastructure, he adds.

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## DETERMINING WHAT WORKS FOR ANY BUSINESS

While the potential benefits of cloud computing are undeniably impressive, SMBs need to formulate a plan that makes sense for them before diving in.

The first step is to conduct a comprehensive audit of your IT operations and needs in order to determine exactly what you should consider migrating to the cloud, and this exercise should be conducted from the perspective of the benefits you hope to achieve. The bottom line is that each cloud computing benefit should always be tied to a specific business benefit. “If it meets that specified criteria, the cloud should be viewed as a viable alternative to on-premise IT,” says Yehuda Cagen, director of client services at Xvand Technology Corporation, a provider of cloud-based IT services. While the importance of various benefits to individual businesses will vary depending on their unique circumstances, Cagen says some of the most compelling reasons for migrating to the cloud include:

- Speed to market
- Lower financial risk
- Greater financial viability
- Improved cash flow
- Better IT budget forecasting
- Freeing up internal resources
- Adaptability to evolving market conditions
- Improved risk management
- Improved disaster recovery capabilities
- Better employee morale

### EVERY COMPANY MUST DETERMINE ITS OWN BEST PATH

While the cloud paradigm offers important business and technical benefits, the “hidden truth” is that the path to the cloud is not the same for all workloads, says John Hawkins,



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senior director at RiverMeadow, a developer of SaaS cloud migration solutions. In some cases, it's as easy as moving the workload directly to the cloud; in others, some re-platforming or upgrades may be needed, or perhaps a certain application may not perform as well in the cloud and so is not a good candidate for migration. "It's important to understand what the implication in going to the cloud will be," he says. "Getting an assessment will give you some much needed peace of mind."

Not every app is a perfect fit for public cloud, notes Ryan Koop, director of products and marketing at CohesiveFT, a creator of customizable, flexible cloud network platforms. SMBs considering a move to the cloud must look at each application, determine what it is likely to cost to run it inside their own IT operation for the next three years, and compare that to the potential savings from migrating it to the cloud, he advises. "From a performance perspective as well as a financial perspective, there are many factors to consider when moving to cloud. Things like failover (backup operational mode), capacity expansion (cloud bursting), and disaster recovery are fantastic use cases for public cloud, and the cost savings for these examples in the cloud are really attractive. But if a cloud customer needs to run an application 24/7/365 with terabytes of data involved, those costs start to add up," Koop says.

## DETERMINING BEST PROSPECTS FOR CLOUD MIGRATION

One problem with the question of data center versus cloud is that many SMBs are unsure how to compare costs for applications. "There aren't always good financial models available that easily demonstrate how running an application and related databases in public cloud compares to running it in an existing or new data center," Koop says. When undertaking such comparisons, it is critical that you also consider all related additional costs, such as network or database administration, manual labor, the human capital perspective, real estate costs, and so on. "Sit down with potential vendors, customers, and IT teams to work through what features the production environment should have so everyone involved starts on the same page," he suggests. From there, begin building in the cloud environment to capitalize on the economies of scale. "Doing all the heavy lifting on the front end helps avoid any delays once the project starts and budgets begin burning."

Changing the operating model and systems that support your core business can be a risky proposition no matter how much planning you do, so you need to choose a path that will give you the best chance for success. For many SMBs, a direct path involving the lifting and shifting of workloads is the path of least resistance to the cloud, Hawkins posits. "A direct path could include applications that may be co-located on physical hardware, private cloud, or virtualized workloads that might do better with a lower-cost cloud provider," he says. Social media and information-driven applications that are built

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on horizontally-scalable platforms with minimal connective tissue to ERP (enterprise resource planning) systems are generally good candidates for migration to the cloud, unless those ERP systems are cloud-based. However, applications with deep connective tissue to ERP systems on non-horizontally scalable platforms might need re-platforming before being moved to the cloud, he says.

## “MIGRATE FIRST; RENOVATE LATER”

Koop advocates what he calls a “migrate first; renovate later” process of cloud migration. “Rather than re-architect and rebuild for cloud, save time and capture cloud economies of scale by first migrating an application. Once in the cloud, SMBs can begin the renovate/innovate process in the more flexible cloud environment,” he suggests. That approach makes sense because the cloud has known physical economies of scale that can save SMBs the labor and maintenance costs of managing a data center; the next level of savings is focused on the production footprint.

One key element missing from many cloud strategies is an analysis of the impact on the business’s operating model, Hawkins cautions. Companies implementing Infrastructure-as-a-Service (IaaS), PaaS, and/or SaaS usually find that in order to realize the value of those services, they need to re-tool the organization and update their operating model. “For SMBs, it’s a fairly straightforward approach. You need to identify all the touch points to the application you are planning on moving to the cloud, which in many cases will be shared functions,” he says. For example, you may have a salesman who consumes the service, a business analyst who designs the business model, a delivery resource who delivers the service, and a bookkeeper who takes the payments. “The key is to ensure that all those impacted by the change understand what is going to happen, create awareness, and are included in the strategy and plan to move to the cloud. Creating the map of internal resources (that will need to be revamped, reduced, or augmented to make them compatible with a cloud strategy) can be done in a similar way,” he says.



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## BUILDING AND IMPLEMENTING YOUR CLOUD MIGRATION PLAN

While the potential benefits of cloud computing are undeniably impressive, SMBs need to formulate a plan that makes sense for them before diving in.

After conducting an audit to determine which aspects of your operations are best suited for migration to the cloud, the next step is to build a team for planning and implementing

the migration. “First and foremost, the team must include the key stakeholders and leaders who will be impacted by the migration,” says Kevin Wilson, cloud services manager at eGroup, a provider of cloud and technology services. While it’s important that there be representation from each level of the organization, many companies end up overlooking one key stakeholder in particular: the end-user. Keep the team lean to remain focused and lessen distractions, but make sure the end-user’s interests are well represented.

With the team in place, creating a vision or mission statement to guide the planning and implementation phases is the next order of business, and it should be taken seriously. The team must articulate the business objectives behind moving to the cloud, and the vision statement must capture the existing metrics you want to maintain (security level and access to resources, perhaps) and which you want to improve, (e.g., reducing IT costs, increasing speed-to-market). “Articulating the current state and the desired state can have a significant impact on the planning and implementation,” says Aater Suleman, chief executive officer of Flux7, a consultancy focused on helping growing companies realize the benefits of cloud technology. Wilson feels strongly that the vision/mission statement should be finalized well before the implementation phase so that once the plan is approved the stakeholder team will be “absolutely clear” on what the outcome will look like. “From there, it’s all about moving and testing. By clearly understanding the vision at the outset, the team is empowered to quickly and effectively decide on a path forward by analyzing the testing results,” he says.

## KEY OPERATIONAL CONCERNS

With the vision/mission statement providing general guidelines, your team should now develop a nuts-and-bolts implementation plan that covers all key operational concerns, says John Gasowski, director, business internet product management at Comcast Business. “Back-up, disaster recovery, business continuity, data security, ownership of information, compliance with data protection/retention obligations, location of data, end-of-contract risk—these typically are important considerations for most businesses. For SMBs it’s also a good idea to consider a plan to quickly revoke access for departing employees, especially in cases of involuntary separation,” he says. Wilson adds licensing to this list, noting that the confusing and complex web of software licensing can stall migrations or, in worst-case scenarios, halt them completely. He suggests addressing any licensing issues in the very early stages of planning. At a more granular level of important IT concerns, Suleman singles out code deployment, performance requirements, accounting approaches, developer workflow, and agility of the cloud environment.

For most SMBs it makes sense to get vendors involved prior to the implementation phase. “It is better to choose the vendor and incorporate the operational concerns as a requirement in the vendor selection process, as they will be better equipped to mitigate the risk of lost data during the transition,” Gasowski says. “SMBs should take

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the time to identify the key requirements from the end-state goal. Once they have these requirements, it will be a matter of matching the best vendor to provide the right solution.” In cases where SMBs have not been able to devote as much time and resources to the initial audit and planning processes as they might have liked, vendor involvement at an early stage is even more important, says Adam Stern, founder and chief executive officer of Infinitely Virtual, a provider of hosted virtual dedicated server and cloud-computing technologies. “These SMBs cut to the chase. Things aren’t done by committee; they’re hands-on and collaborative, and they invariably involve the vendor from the get-go. For that reason, the vendor must be—and must be perceived as—a genuine partner, an expert whose role is to help the SMB determine where to go and when, and who matches your requirements. Select the vendor who takes communication seriously,” he advises.

## **PULLING THE TRIGGER: ALL IN OR BIT BY BIT?**

Once apps and vendors are selected, environments must be configured and the apps installed, a nuts-and-bolts operation that can be done by the vendor or an internal IT team, if one exists. “It’s all about moving and testing,” Wilson reiterates. “Move a workload and test it. If it all checks out, the next phase involves pulling in the end-user stakeholders as beta testers.” Only after full review and acceptance should you go live, and even then you should always have sufficient rollback plans in the event of an unforeseen disaster, he adds.

Since many SMBs have limited resources, the question of whether to take a stepped or phased approach versus an all-in approach to implementing a migration to the cloud is an important one. There are pros and cons to both approaches and mixed opinions on which is better, but for SMBs, the majority opinion seems to come down on the side of a stepped approach. “Most SMB owners are not technology-savvy, so it would make sense to use their existing back-up methods in conjunction with the cloud-based back-up and migrate data in phases until they are comfortable with the technology,” Gasowski says. “The con is that it may be a little confusing or difficult to find data while the migration occurs.”

Stern notes that resources figure into this debate, and that a phased approach may be more demanding from that perspective because there are more steps involved—more testing, data transfers, back-ups, restores, etc. “That said, some SMBs need a certain comfort level before jumping into the pool, which makes the phased approach appealing,” he concedes. “It’s possible to engineer a rapid migration and then realize that the water’s not fine after all.” Wilson has even stronger feelings on this issue. “Unless you’re the Evel Knievel of IT, a stepped approach is absolutely recommended,” he says. “Doing the ‘big bang’ migration is much too risky and typically yields poor results.”



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**CASE STUDY:**

## **CRS TECHNOLOGY CONSULTANTS: BETTER UPTIME, LESS MONEY**

CRS Technology Consultants has been providing IT consulting and support services for small and medium-sized customers nationwide for more than 20 years.

While it is based in southwest Florida, CRS employees work both locally and remotely—some from as far away as the upper Midwest. While the company's headquarters location in Florida's "Hurricane Alley" puts it at risk of business disruption due to natural disasters for half the year, it was man-made misadventures that prompted owner Jordi Tejero to migrate his business to the cloud.

"We started thinking strongly about moving to the cloud after we had two failures in our office, one due to electrical problems, the other to a fiber cut," he recalls. "We had invested a lot of time and money in extra equipment such as redundant power and

redundant Internet that were supposed to protect us against these kinds of disruptions, but in the end they didn't get the job done.”

Tejero and his team began looking into the viability of cloud as an alternative for many of their data, application, and business process needs and quickly found that they could continue using the same solution providers by switching to those vendors' cloud-based products. “The costs were the same or, in some cases, actually lower. This coupled with the reduction of capital expenditures made it a no-brainer for us,” he says. “We could get better uptime for less money and have more functionality—it was a win-win situation.” CRS started the migration process in the second quarter of 2013 and completed it in the first quarter of 2014.

## IMPROVING OVERALL CAPABILITIES

Increased uptime, greater scalability, improved reliability, and cost savings were the drivers behind Tejero's decision to move his business to the cloud, but as an added bonus he also got greatly improved telecommunications capabilities by choosing to go with Comcast Business as his provider. CRS was already a Comcast Business Internet customer, but as it moved more line-of-business applications to the cloud, a need emerged for a faster, more scalable connection to support timely Internet access to its applications by employees and customers. A simple call to their local sales rep was all it took to upgrade to 100 Mbps, and Comcast was able to add capacity quickly—no new equipment installation or site visit required.

“We chose Comcast Business because of the features for the costs, the interfaces they provide, and the improved quality, Tejero says. With the Comcast Business VoiceEdge cloud-based unified communications (UC) solution they chose, CRS got “a better phone system that is more scalable, has built-in disaster recovery/high availability (DR/HA), and is saving us money,” he adds. “No one can touch Comcast on speed, price, and benefits.”

*We could get better uptime for less money and have more functionality—it was a win-win situation.*



## KICK YOUR TELECOMM TECHNOLOGY INTO A HIGHER GEAR

Any technology plan needs to account for communications and collaboration. If you're looking to create a strong communications backbone or take your infrastructure to the next level, Comcast Business offers a wide range of scalable Internet, voice, TV, and support tools and resources to help your business succeed—and grow.

- **Cloud Applications.** The Upware Marketplace from Comcast Business offers several best-in-class cloud applications. The Upware Marketplace provides solutions from such well-known providers as: Soonr Workplace, the

leading secure online file sharing and collaboration service; Box, a secure, scalable content-sharing and collaboration platform; Hightail, a simple, safe, and convenient content-sharing solution; hosted Microsoft Exchange from Comcast Business, with a powerful set of cloud-based productivity tools that will unlock the potential of your business; data backup from MozyPro (desktop and server), Carbonite Business, and Digital Safe; data security from market leaders Norton and Websense; and anyone, anywhere online collaboration tools from Cisco WebEx Meeting Center.

- **Internet.** When it comes to the Internet, it's all about speed. Comcast Business Internet features downloads up to 150Mbps and uploads up to 20Mbps. In addition, the service offers hosted Microsoft Exchange, including Outlook email and SharePoint; flexible Web-hosting options to build and promote a website; and, for customers with more demanding data requirements, Comcast Business also offers Ethernet services.

Comcast Business Internet also includes access to two Wireless Networks, a Private WiFi network for your employees and a Public WiFi hotspot for your customers and visitors. Through the Private Network, your employees can connect wirelessly to servers and other shared devices, like printers, as well as cloud applications and the Internet. The Public WiFi hotspot is a convenience feature for your clients and can help make your business a destination.

- **Voice.** Crystal-clear phone service should be your minimum expectation, but that's just the beginning of what Comcast Business offers. Anywhere access to calls and voicemail, cost-effective managed voice service, unlimited local and domestic long distance, PRI Trunk solutions, 24/7 support, and more—it's all part of the Comcast Business Voice experience

Looking for a completely managed voice solution? Comcast Business VoiceEdge lets you focus on your business instead of your business communications. With the VoiceEdge high-definition, cloud-based phone service, all voice communications services are managed by Comcast Business, which minimizes capital expenditures and eliminates the need to manage and maintain a premise-based PBX or Key System. And with features like Be Anywhere, which helps users avoid missed calls, and Remote Office, which allows users to utilize their phone number and profile features from anywhere they work, you and your people are never out of communication.

- **TV.** With Comcast Business TV, you can choose the package that best fits your needs and adds the most value for your business. Comcast Business offers content geared to offices and waiting rooms, bars and restaurants, fitness



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centers, and hotels. Comcast Business TV offers competitively priced packages including popular local broadcast and cable networks; news, business, general sports, weather, family, and more; and league-specific sports channels covering the NFL, MLB, NBA, and NHL.

- **Support.** Comcast Business understands that you can't waste precious resources troubleshooting IT issues when business is piling up. To that end, Comcast Business offers 24/7 support to help keep your computers, networks, servers, and other technology up and running. To that end, we offer the Comcast Business Promise: If your service is interrupted, we promise to resolve it as quickly as possible. If you report a service interruption that was our issue, you will receive a bill credit. It's that simple. You depend on Comcast Business for the success of your business and we take that trust seriously. We're committed to delivering on the promise of providing customers the most reliable data, voice, and TV services that consistently exceed expectations.

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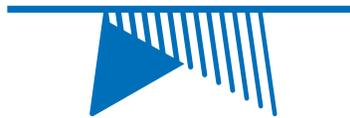
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