



When to Move to the Cloud

2019 Public cloud services market:

\$206.2 billion¹

17% increase over 2018

“Organizations embracing dynamic, cloud-based operating models position themselves for cost optimization and increased competitiveness.”

—Ed Anderson, Gartner’s Vice President Analyst

Introduction

Just how big is the cloud?

Now in its second decade, what used to be the space for experimentation has become the active playing field for IT development and growth. Not only is today’s cloud more secure than most on-premises systems, it’s increasingly the only place to access the latest and most innovative technology available to run your business. Security, flexibility and innovation are the defining features spurring the impressive growth of the public cloud services market, which Gartner Research estimates will top **\$206.2 billion** this year, a **17% increase** from 2018.

Increasingly, more businesses are choosing to go “cloud first” for IT investments, so much so that through 2022, more money is expected to be directed toward investing in cloud-based services than traditional IT solutions. Gartner’s Vice President Analyst Ed Anderson succinctly summed up the current outlook this way: “Organizations embracing dynamic, cloud-based operating models position themselves for cost optimization and increased competitiveness.” That’s not a call to jump on the cloud bandwagon —it’s just acknowledging the current state of investment in IT and where its future is headed.

While the headlines in the press tend to focus on the public cloud, hosted private clouds offer exceptional opportunities for IT dependent businesses to leverage the same level of security, innovation and cost-optimization, especially when they choose a host familiar with their own industry. Combined with managed services, using private cloud services can take your business to the next level, and free up capital and resources to focus on core business goals.


This guide includes an overview of the benefits of cloud computing, a framework for deciding if your business should move to the cloud, and how to leverage cloud computing and managed services for your company’s future security, growth and profit.

The Benefits of Moving to the Cloud

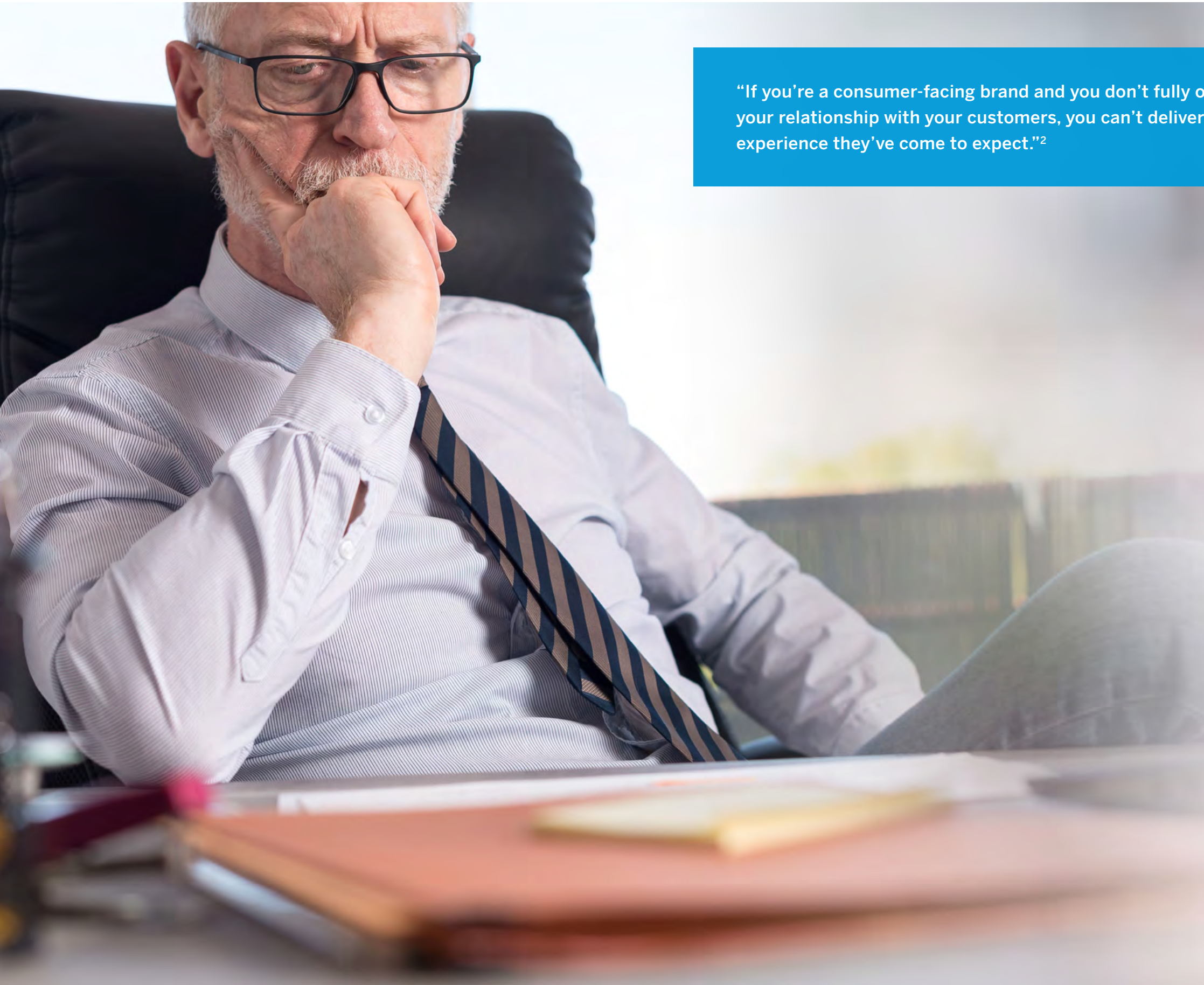
Businesses that have reached the point where they need further investment in tech resources (staff or equipment) should consider migrating their IT systems to the cloud. Using a cloud host and managed services, non-tech businesses can leverage economies of scale, run their IT on state-of-the-art equipment managed by industry experts, achieve more efficiencies in their core software applications, and take advantage of the latest available security options - all at levels that would be financially challenging, if not impossible, for most operations to execute on their own.

Plus, using managed services allows business resources to be directed to core functions instead of IT. That gives you the resources to hire more drivers instead of finding someone to do a data backup, load the latest software upgrade or fix the wireless in the office the next time it goes down.

As businesses increasingly rely on cloud-based business solutions delivered through apps and web-based software accessed over the internet, the price for delivering them through the cloud has come down. Meanwhile, the cost of hardware and the salaries for the staff needed to maintain, upgrade, secure and service private networks will continue to grow increasingly prohibitive for most business sectors.



With your savings you can: hire more drivers instead of finding someone to do a data backup, load the latest software upgrade or fix the wireless in the office the next time it goes down.



“If you’re a consumer-facing brand and you don’t fully own your relationship with your customers, you can’t deliver the experience they’ve come to expect.”²

When is the Right Time to Decide?

Instead of looking for a “tipping point” moment that forces you to consider migrating your IT from in-house to the cloud, begin looking for the gaps between your operation’s current functionality and where it needs to be.

Those gaps can include the level of in-house expertise, inefficiencies that can’t be solved, underutilization of resources (staff and/or equipment), lack of capital or appropriate staff for desired expansion.

Often the decision process can be framed by asking these three questions:

- Can our business afford to stay in place?
- What can we afford?
- How can we best position ourselves for growth in a competitive market?

How to Make the Decision: Stress Test Your IT

A different way to effectively decide when to move to the cloud involves putting your operations to a "stress test" to determine:

- a) its dependence on technology
- b) its susceptibility to various threats in its current form.

From there, work with an industry expert to create a proof of concept to examine which threats are mitigated or removed entirely by moving to the cloud.

The IT Stress Test for External and Internal Threats

External factors include:

Natural disasters - floods, earthquakes, fires. If the building housing your IT is destroyed, or inaccessible due to a natural disaster, does your business grind to a complete halt?

Cyber attacks and hackers - are you confident your firewalls and IT support staff are up-to-date and effectively guarding your company against a cyber attack or hackers?

Power outages - in the event of a power outage, does your physical location have generators in place to keep your IT system functioning? For how long?

Internet outages - if your enterprise internet or wireless go down, what is the exposure or risk to your business?

Internal threats include:

Loss of an employee or employees - how many people in your organization are responsible for managing your company's tech? If you lost them, how quickly could they be replaced?


Employee skill set - who is in charge of making sure your organization's internal tech skills and industry knowledge stay up to date?

Expansion/growth - can your current IT system and the employees that support it handle your company's plans for growth? Do they understand how to leverage tech to help you get there?

Physical space - if you needed to purchase more IT equipment, does it fit within the budget and is there appropriate, secure space for it?

Electrical fires & Vandalism

Business process - who owns the action plan when systems go down or equipment fails?



Work with an industry expert to create a proof of concept to examine which threats are mitigated or removed entirely by moving to the cloud.



Resources that were previously spent on maintenance and problem solving can now be used to create new business opportunities and profits.

What to Know Before Migrating Your IT to the Cloud

- 1 The differences between managing your own IT system and having it hosted in the cloud are significant. Even well-established businesses can run into major hurdles during the transition. Often these hurdles are organizational in nature, not technical, and result from the need to create new teams with new responsibilities and skill sets. In some cases these teams can bear little if any relationship to the traditional IT teams that preceded them.
- 2 Working with an expert can make defining your goals and what you can achieve much easier. That expert will be your partner on what will likely be a months-long project that's going to have a huge impact on your business. Pick someone who knows your industry, your business, your goals and how to get you there. Planning ahead will pay off - this is not a "one and done" project.
- 3 Ask questions about what your business wants to accomplish by migrating to the cloud, such as "How can we improve the customer experience through faster service or expanded capabilities?" or "What can we use that will enable us to take our business to the next level?" The answers should help you identify the technology that will achieve the goals.
- 4 Only choose technologies that get your business to its goals. Today's tech offers countless options, but only select options that work for your enterprise and can fully integrate with the hardware, software and cloud capabilities to achieve results. Many technologies are presented as "off the shelf" bundled products. Don't be afraid to ask for a menu of service options that allow you to construct the services that will best fit your needs.
- 5 View the cloud as a service model, not technology. Once your business has migrated to the cloud, managing the technology can be removed from your plate. Managing the services, and getting the most from them, becomes the focus.
- 6 Managing services is not the same as managing IT. Your operations will change, and your staff might have to as well. Resources that were previously spent on maintenance and problem solving can now be used to create new business opportunities and profits.
- 7 What abilities do you expect to have on the other side? Moving to the cloud can transform your business. Have some discussions beforehand about where the enterprise is going and what a successful migration to the cloud looks like when it's completed. These kinds of conversations can help frame the technology decisions that will help you meet your business goals.

TRIMBLE CLOUD MIGRATION

What to do First:



Choose a partner/consultant with expertise in your industry and an understanding of your business, including its existing IT situation, staff and future business goals. The person/team you choose should possess cloud experience sufficient to serve as the point person on a complex project with many moving parts.

Map out your company's organizational knowledge and existing skill sets that manage the current IT system.

Identify the gaps in resources, skills and capabilities required to maximize the value of cloud computing.


Review your existing IT staff's capabilities and determine its potential for success as staff transitions from managing IT systems to service level management (SLM).

Plan for additional costs during migration to the cloud in staffing and training as the company moves from running an IT system to managing services provided by a host, including new tools or upgrades.

Assess the current capabilities of your service desk functions and determine if your current procedures for handling events, incidents and supplier issues need improvement or changes. Consider service desk functions from "the outside in" to gain perspectives on how to increase quality of service, quality of experience and how the cloud can improve your results and expand capabilities.

Develop a cloud initiative and proof of concept resulting in a pilot that can evaluate staffing, service delivery, gaps in integration and support issues. The results should help define choices for your final migration. Consider a dedicated, well-funded team for this endeavor that can also evaluate the ROI and TCO of moving from managing IT systems to managing IT services.

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Making the Most of Managed Services

There are two cloud options. One is using a “public” cloud like Amazon Web Services (AWS), Microsoft’s Azure or Google Cloud Services. They are great options for large scale operations (Maersk, Netflix) that want to maintain robust IT departments. The advantage the cloud has for companies like these is the availability to “spin up” server capacity in hours instead of weeks. Consultants can migrate your company’s data to AWS or Google, but after that it still needs to be managed. Given the level of expertise required to migrate an IT system to the public cloud, most niche industry companies will be better served by a host provider specializing in their industry.

The second option is to use a “private” cloud, like Trimble Cloud and Managed Services, which allows the customer to take advantage of the host’s expertise and state-of-the-art equipment - and leverage both to maximum effect for your business. You can free up your internal resources and capital to build and sustain your core business through subscribing to host’s managed services and let them handle:

- Managing your entire network, which encompasses setting up and maintaining firewalls, VPNs (virtual private network), routers, wireless solutions, switches, system monitoring and ongoing assessments of need
- Solving connectivity issues that a limited IT staff can’t identify, solve or support
- Setting up and managing email servers
- Managing your IPS (intrusion prevention system), IDS (intrusion detection system) and URL filtering to prevent hacks and malware

- Blocking traffic to and from bad location
- File inspection of everything passing through firewall
- Use of Cisco’s IP and domain reputation and blacklist information
- Managing digital telephone systems

Private clouds can also offer streamlined, one-stop support, and if you’re a Trimble customer, using Trimble Cloud and Managed Services gives you the efficiency of having your IT ecosystem built around your core software. The result provides Trimble customers with a 360-degree view of everything tech-related inside their physical building through their managed services provider, managed by the provider for optimum performance and integration, and supported by a universal help desk. Additional support includes onboarding and educating users, as well as managing third-party software such as Microdea’s Synergize (after installation). This level of support can be accessed “on-demand” and “pay-as-you-go” through a monthly subscription fee that will probably be more cost effective than hiring an expert on an “as-needed” basis.

Switch from Investing and Supporting to Leveraging

In the final analysis, moving to the cloud is about giving your business more options to do what it does best while enabling it to take advantage of leading-edge technology and expertise. It offers you and your team the ability to access your data and information, and the power to act on it, from a smartphone, tablet, laptop or computer terminal anywhere in the world. Using managed services allows you to focus on your core business instead of system maintenance and hardware investments, which become the responsibility of your host. Together, they can power your business forward.

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Trimble offers consulting services to assist businesses in reviewing options, creating a cloud migration plan, and structuring a cost-effective managed services program.

Trimble Transportation

Trimble Transportation provides solutions to create a fully integrated supply chain, helping customers make more informed decisions and maximize performance, visibility and safety. With an intelligent ecosystem of products and services, Trimble Transportation enables customers to embrace the rapid technological evolution of the industry and connect all aspects of transportation and logistics – trucks, drivers, back office, freight and assets.

How Trimble Can Help

As an industry-leading software company, Trimble has a vested interest in maximizing the performance of its hardware and software for its customers, and has invested heavily in the expertise and equipment to accomplish this for our customers. Trimble can take it to the next level by offering cloud and managed IT services for businesses, whether or not they're currently running Trimble Transportation products.

Trimble offers consulting services to assist businesses in reviewing options, creating a cloud migration plan and structuring a cost-effective managed services program. This service can be offered at every level when it comes to running IT, from acting as a universal help desk on anything tech-related, to making sure software is delivering everything it can, at the highest speed, in the most secure environment possible.



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