Introduction

For many years, organizations had limited options for building and upgrading their IT environments. Specifically, technology solutions were built almost entirely upon on-premises hardware that was maintained by internal IT staff or third-party consultants. Eventually, some organizations began virtualizing pieces of their environments when the private cloud emerged as a way to increase agility and scalability while reducing cost. Still, many organizations were uncomfortable moving beyond private cloud solutions.

In recent years, however, the cloud has taken leaps forward. For example, whereas early cloud solutions lacked their on-premises counterparts’ robust functionality, that paradigm has recently been turned on its head. As a result, organizations have been provided new, highly flexible and customizable options for consuming technology. These businesses can now mix and match their IT environments, moving specific areas of the technology stack—such as collaboration, telephony, or infrastructure—to the public cloud as part of an “as-a-service” consumption model, while keeping others on-premises or private.

As the as-a-service model matures, it continues to gain popularity. In fact, IDC predicts that worldwide spending on public cloud services is expected to reach $370 billion in 2022, with a five-year compounded annual growth rate (CAGR) of 22.5%.

The following pages break down the as-a-service model in its various iterations; explain the benefits of leveraging IT-as-a-Service (ITaaS); and strategic steps to ensure a path to success with this new approach to IT consumption.

It will also explore some of the most important as-a-service business drivers, including:

- A desire to consistently empower employees with the most up-to-date features and functionality
- The need for scalability via capacity on-demand
- Evolving wisdom around IT spend, where many organizations struggle to maintain expensive on-premises hardware and want to better manage and forecast capital outlays and monthly expenses
ITaaS—Explanation and Benefits

The most important aspect of ITaaS has nothing to do with technology itself. Rather, the key to as-a-service consumption models is about the organization and its lines of business. In recent years, business unit leaders began to adopt cloud-based technologies (think sales moving to a software-based conferencing and collaboration platform like Skype or WebEx) outside IT’s purview. While these technologies offered extraordinary benefits for those departments, they also greatly reduced IT’s ability to closely control technology inside the organization.

ITaaS reverses this trend without putting the brakes on innovation and the adoption of new solutions. In an ITaaS model, internal IT becomes a service provider to the rest of the organization—making technology decisions according to business needs and helping implement solutions, whether they are hosted on- or off-premises.

Businesses that transition to as-a-service solutions typically find they are able to reduce their capital expenditures on related data center hardware and ongoing support. Ongoing costs, such as those required to patch, upgrade, and expand traditional legacy platforms, also see measurable drops once the migration to the cloud accelerates, as vendors push updates to features and functionality out to cloud solutions automatically, meaning users always have access to the most up-to-date versions of those solutions.

Expenditures associated with maintaining a current infrastructure aren’t the only things that go down. The time to execute expansions, deploy updates, spin up test environments, and install new services can also drop, with the latest functionalities and innovations typically available on a monthly or even a weekly basis. This stands in stark contrast to the 18- or 24-month timeframes more commonly seen when organizations exclusively utilize more traditional on-premises model for their IT services.

In today’s cloud world, almost every part of the IT stack can be moved to the cloud through various as-a-service consumption models, such as:

**Infrastructure-as-a-Service (IaaS)**

Infrastructure is the core of any IT environment, as systems and applications are built on top of this foundation. When data center functions—compute, storage, and networks—are delivered through an as-a-service model, the onus of maintaining on-premises hardware is reduced from internal IT and placed with the service provider. In this model, organizations can scale more quickly, increase capacity to help with a product rollout, or meet capacity demands during peak business cycles.

Additionally, best-of-breed IaaS providers offer greater reliability by maintaining several sets of redundant hardware and multiple data center locations and regions, a critical benefit of ITaaS as the cost of downtime continues to rise. The average total cost of unplanned application downtime per year is $1.25 billion to $2.5 billion, according to IDC.²

By freeing up the funds and the internal resources that would otherwise be dedicated to maintaining legacy infrastructure, businesses that embrace IaaS can re-allocate personnel and financial resources to focus on innovation and strategic initiatives.

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² IDC #262976

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Collaboration/Unified Communications-as-a-Service (UCaaS)
Cloud collaboration, also known as UCaaS, has grown in large part out of employees wanting the ability to communicate anywhere, anytime, and on any device the same way they do outside of work. Today, teams expect and need to be able to use tools like videoconferencing, messaging, screen sharing, and conference calling whether they work at an office or are traveling with just a mobile phone. UCaaS helps make this goal a reality as service providers constantly enhance services and functionality, as well as new security measures. An additional benefit is that internal IT does not have to manage the upgrade cycle, freeing up considerable time for higher-level tasks.

Additionally, UCaaS offers great scalability for growing teams. New users or “seats” can be added rapidly based on need and scaled back later, if necessary. And, like every piece of the ITaaS model, UCaaS also simplifies IT budgeting by offering flat-fee or usage-based pricing options.

Contact Center-as-a-Service (CCaaS)
In the contact center, customer experience trumps everything else, so technology should be vetted and deployed with that in mind. Legacy, on-premises contact center solutions often limit dynamic scaling, meaning it may take longer for organizations to add the personnel they need to handle rapidly increasing volume due to seasonality or unexpected events. In turn, customers wait longer to get their issues resolved. Conversely, contact center-as-a-service makes scalability seamless and helps improve the overall experience by adding omnichannel communications and collaboration options. Cloud contact centers also eliminates the need for costly hardware upkeep and, like other ITaaS offerings, vendors automate the release of the newest feature sets and services, empowering agents to always perform at their best.

Networking-as-a-Service (NaaS)
Cloud networking solutions are critical elements of as-a-service offerings and essential for ITaaS, UCaaS, and CCaaS. NaaS includes a variety of services and technologies, including Bandwidth on Demand, SD-WAN, VPN-as-a-Service, and virtual switching. In line with ITaaS, NaaS removes the onus of building, monitoring, and maintaining a network from internal IT and moves it to the third-party provider. Services like Bandwidth on Demand also help control costs, as organizations can quickly add bandwidth when needed, rather than paying for more than they require in anticipation of an occasional spike.

ITaaS Challenges

The move to the cloud is a journey that involves thoughtful planning and IT leaders should be asking:

What should be moved?
Most organizations will want to examine their existing platforms and determine which of those are good candidates for the cloud. Cataloging your applications and physical infrastructure is an essential early step.

What are the goals of moving to the cloud?
Companies need to know the business outcomes they want to realize—cost savings, faster application deployments and upgrades, secured remote access and support, reduced burden on internal IT staff, etc. It’s also important to determine how the organization will measure the results to ensure they’ve accomplished their goals. Clearly identifying each key performance indicator (KPI) is crucial to success.
What’s the right timing for a move to the cloud?
Start and end timeframes are just the beginning when it comes to moving services to the cloud. Users’ expectations for access and support—and how much disruption they can tolerate—will also be a driver as the company establishes its priorities and schedule.

Which cloud solution is right for our organization?
Each organization will need to determine whether a public, private, and/or hybrid environment is best suited for their needs. They may also want to explore the logistics of moving some applications and corresponding platforms to the cloud while others remain on-premises.

Careful planning is extremely important because ITaaS comes with a host of challenges, as well. As such, when an organization is considering a move, it must understand all the benefits and risks involved, including:

- **Cost.** A lack of understanding about how to control costs in the ITaaS model can diminish the savings the company expects to achieve. Moving to the cloud alone does not guarantee savings. Organizations must understand how public cloud billing works and how their anticipated consumption levels fit into those pricing structures to reap maximum cost benefits. A thorough cost/benefit analysis is a critical step in any successful cloud adoption initiative.

- **Funding source.** Cash flow is another financial measurement where “as a Service” consumption pricing may differ from historical models, which often tended toward CapEx spending. The organization will need to understand how the consumption structure, and its use of monthly OpEx funding, will impact the company’s cash flow management.

- **Planning.** An overly ambitious migration plan that moves too many workloads and systems to the cloud at once often leads to delays, user experience issues, decreased platform adoption rates, and the potential for unexpected cost overruns. A more methodical approach can help avoid service disruptions and sustain better engagement across the user base. Be patient, focus on desired business outcomes, and define and measure KPI for the project(s).

- **Results.** Without a clear strategy for cloud adoption, organizations are likely to encounter adoption challenges that may prevent the organization from getting maximum value out of the new services. Monitoring the results of a cloud migration—including expenditures, productivity levels, adoption rates, and user satisfaction scores—is an important factor in achieving the best outcome.

These challenges have one thing in common: they often stem from a lack of in-house experience. Public cloud subscription and utility based pricing, for instance, is still relatively new and is not commonly understood even by many top IT professionals. As such, it may be difficult for a business to accurately forecast its actual service usage and how it fits into the provider’s new price tiers. If the internal IT team lacks previous experience in provisioning public cloud services, the ITaaS can wind up costing the organization more.

Without access to deep expertise across the various integrated services that typically comprise a robust as-a-service suite—and absent the staffing and industry experience to coordinate transition activities across multiple vendors—companies are likely to find their migration project moves along in fits and starts. This can result in additional costs as the schedule encounters delays. It may also negatively impact end users’ productivity through unexpected service disruptions and a lack of access to necessary tools and features as the cutover continues. Lastly, IT’s reputation may be significantly damaged
when a project runs over initial cost projections and timelines. Shifting these services while continuing to provide a seamless and robust user experience could present big challenges for the organization.

User adoption challenges are also common with cloud migration projects. It is not enough simply to invest in and deploy new technologies—organizations must get people to use them to derive any meaningful value. Behavior, unfortunately, is difficult to change. One email from IT with a link to a short instructional video probably is not going to be enough to get employees to abandon familiar tools for new ones. Rather, organizations must commit to:

- **Senior management champions** who lead these efforts and demonstrate their commitment to the new technology by being vocal initial adopters.
- **Ongoing training and guidance** to maximize adoption that may include interactive webinars, customized collateral, in-depth webinar recordings, a designated subject matter expert, and other tactics.

Employing a Unified Communications & Collaboration (UC&C) tool is an underutilized approach to gain competitive advantage. These platforms are incredibly helpful in any business environment, but it can be a challenge to change the mindset and habits of employees in adopting and using these tools.

## Getting on the Path to ITaaS

One of the most important factors in a successful ITaaS migration is patience. New technology is exciting and valuable, but it is critical not to jump into a move if you are not fully prepared. At the beginning of the process, either internally or with a trusted partner, conduct an assessment of your current environment to get a full understanding of what it will take to achieve your desired outcomes. Expectations should also be established during this phase to ensure that stakeholders recognize that any migration to the cloud doesn’t end when the move is complete. Technologies, business needs, and user expectations will continue to evolve. A successful cloud migration provides a foundation that will support a longer-term series of programs and processes which build on one another for continuous productivity improvements and gains in efficiency.

From there, the team can create a detailed migration and adoption plan that accounts for all the aforementioned potential challenges, as well as any that may be unique to your organization. Remember, even if it takes a little extra planning or partnering with an IT services firm with experience in ITaaS deployments, the long-term benefits will be exponential if the project is done correctly.
About Carousel Industries

Carousel Industries is a recognized leader in providing IT solutions and services to help organizations to connect and collaborate the way modern IT users demand and advance from their current network infrastructure to meet tomorrow’s standards. With deep expertise across a vast portfolio of communication, network, and security technologies, Carousel is able to design, implement, and support solutions tailored to meet the unique needs of each client and offers professional and managed services with flexible deployments in the cloud.

Founded in 1992, Carousel serves more than 6,000 customers, including 35 of the Fortune 100. Carousel has been recognized by multiple publications and industry consortiums as a top technology integrator, managed services and cloud solution provider—including the Inc. 500/5000, Healthcare Informatics 100, and CRN MSP Elite 150. Headquartered in Exeter, RI, the company has offices across the United States and internationally—with three Network Operations Centers.

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