

WHITE PAPER

Monetizing the Cloud: XaaS Opportunities for Service Providers

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March 2011

IN THIS WHITE PAPER

This white paper investigates the transformation of IT delivery and the growing interest in and adoption of delivering IT within a service-oriented architecture. The paper focuses on the advent of various IT-as-a-service (ITaaS) offerings, the growing role of the service provider, and the inherent challenges faced by service providers to develop, scale, and manage such an environment in a profitable manner. The paper then takes a closer look at the solutions, services, and useful tools offered by vendors such as EMC aimed at optimizing the delivery of ITaaS through service provider partners.

SITUATION OVERVIEW

Evolving Business and Operational Realities in the Data Center

New business realities and increasing demands on the management and delivery of information are transforming the way IT is developed and delivered within and among enterprise organizations. Today's businesses are grappling with the benefits and complexities of the private cloud, let alone public and hybrid cloud models of IT consumption. Across all of these cloud domains, businesses expect instant access to data and applications, substantially higher performance and availability service-level agreements (SLAs), and the enablement of greater collaboration and productivity.

Ultimately, organizations are increasingly responsible for enabling a more responsive and efficient business. As a result, the technology, operational, and business implications are complex and challenging. The landscape is rapidly moving to an intense focus on reducing, if not eliminating, many capital and operational expenditures (capex/opex).

The demands placed on today's IT organizations are accelerating on all fronts, with IT executives and administrators feeling the pressure to address a variety of growth, scalability, and management challenges. From a business perspective, organizations must consider increasing pressures to:

- Reduce or eliminate capital expenditure
- Streamline and develop more predictable operational expenditure
- Comply with regulatory and/or business governance mandates

- ☒ Deliver IT services to increasing and often unpredictable numbers of internal and external users, including a growing base of mobile users
- ☒ Leverage the inherent value of business data through increased analytics
- ☒ Rapidly deploy new services to internal customers

From a technological and operational perspective, organizations must consider increasing pressures to:

- ☒ Improve asset utilization over an increasingly complex association of networking, physical and virtual server, and storage infrastructure
- ☒ Offer a growing number and variety of applications across a wide range of needs and interoperability levels
- ☒ Extend access of applications and data to expanding numbers of internal and external users, with mobility a growing and pervasive challenge
- ☒ Obtain control over the incessant growth and long-term management of information, with increasing requirements to deliver layers of management that protect, extend, and leverage the value of data
- ☒ Secure access to and transfer of data by incorporating VPN, firewall, and/or hosted security solutions (Security remains a critical factor as data mobility becomes increasingly prevalent.)
- ☒ Reduce and move to more predictable energy consumption for power and cooling

The confluence of the business and operational demands listed above is causing many organizations to struggle with their ability to satisfy their newfound requirements with existing, traditional approaches to delivering IT.

The past decade has inspired advancements in technology and solutions that have enabled enterprise organizations to begin addressing new business and operational realities in the data center today. Network improvements and advancements in server and storage virtualization have opened the doors to greater consolidation, improved utilization, and reduction in capital spending. The convergence and unification of infrastructure components comprising server, storage, and networking has fueled great improvements in operational efficiencies. However, enterprise organizations today are increasingly unable to keep pace with rapidly evolving requirements while reducing costs and decreasing solution deployment times.

Transforming the Delivery Model: A New Way of Thinking with ITaaS

In an effort to meet business and operational requirements forced on today's IT organization, many are seeking a new approach: leverage external, third-party resources and services to complement or replace traditional, internal IT delivery. This movement toward ITaaS through an on-demand or cloud-based approach builds on the evolution of colocation and hosting services but provides organizations with flexible control on how much and when the service is used.

ITaaS is delivered through a variety of emerging delivery models spanning a wide variety of IT areas, including:

- ☒ **Infrastructure as a service (IaaS)** — elements of compute, storage networking, and associated management and security
- ☒ **Platform as a service (PaaS)** — the delivery of an entire operating platform, often used for development purposes
- ☒ **Software as a service (SaaS)** — application delivery via an on-demand or cloud-based approach

Many ITaaS offerings are being monetized. However, some ITaaS service providers are bundling or combining new services with existing services to make their offerings more attractive. Examples of ITaaS use cases include:

- ☒ **Compute as a service** (e.g., on-demand general compute and virtualization capacity)
- ☒ **Storage as a service** (e.g., basic namespace and/or advanced services such as primary file sharing, online backup, archiving, or other data protection and business continuity solutions)
- ☒ **Virtual desktop as a service**
- ☒ **Security as a service** (e.g., identity and access management, security event logging)
- ☒ **Test and development platforms**
- ☒ **Enterprise applications as a service** (e.g., SAP, Oracle, Microsoft)
- ☒ **Line-of-business or vertical-specific applications as a service** (e.g., healthcare: patient record software, energy: smart grid applications, education: student records/folders, transportation: reservation systems)

Moving toward a cloud-based or "as a service" approach to provide data center infrastructure and applications can greatly help an organization achieve its business and operational goals. By offloading portions or all of its infrastructure and operational burden, the organization is effectively transferring many of the operational challenges to the third party, which is ideally providing best-in-class ITaaS technologies and the ability to more quickly expand and contract IT resources as needed.

Most enterprise organizations will realize the benefits of moving to a cloud-based approach in an incremental fashion. That is, most organizations are not looking to transfer their entire set of IT operations to the cloud overnight. Rather, the piecemeal approach of adopting cloud-based services for specific applications, workloads, or locations will reign for many years to come.

The ability to manage an environment that spans both traditional, internal IT deployment and newer, external cloud-based services will therefore be crucial. This "hybrid" approach will rely on a set of federated services and systems that will minimize the management burden in such an environment that spans both internal and external services.

The Role and Challenges of the XaaS Service Provider

As ITaaS continues to become a critical path to operational success for many enterprise organizations, the role of the service provider is increasing dramatically. However, similar to enterprise organizations, service providers face more intense challenges to develop, deploy, maintain, and scale solutions that serve a host of customers and applications in a quick, efficient, and cost-effective manner. What's more, many service providers tend to look only to their technology partners to provide differentiation when, in fact, a combination of technology *and* services often provides the greatest differentiation benefits. For example, some service providers differentiate on customer service, service-level agreements, flexible provisioning, self-service capabilities, reporting, etc.

While the emerging opportunity for service providers to provide elements of ITaaS is vast, it is also highly fragmented, competitive, and expanding rapidly. It is important for the successful ITaaS service provider to engage in several critical processes to ensure success in both the short term and the long term.

Initial Due Diligence and Thought Process

The service provider needs to perform adequate internal and external due diligence to understand core competencies and translate this to an on-demand service offering for a targeted audience. A critical step in this process is for the service provider to understand its core constituency. The following are among the key determinations to align core competency with target customer:

- Are there particular industries that make up the target customer base (e.g., healthcare, media/entertainment, financial services)?
- What applications are vital to the target customer?
- What elements of ITaaS should be offered (among compute, storage, backup, security, development platforms, and applications, or combinations thereof)?
- Is the existing service provider sales force capable of selling and compensated to sell new ITaaS services?
- Is the target customer among small and medium-sized businesses or large enterprises, or both?
- What geographical footprint or assets are required to serve the target audience?
- What competition exists to serve this same constituency?

In addition, the successful service provider will need to identify key short-term and long-term partnerships up front to align core competencies with technological, operational, or go-to-market gaps.

Finally, ITaaS offerings may be new for some service providers, but many service providers that already offer forms of managed services will need to integrate new approaches with existing technologies, processes, and practices.

Demanding Customers

When delivering elements of ITaaS, the successful service provider will need to develop an environment that can address a multitude of expectations from its demanding end-user constituency. Whether the service provider is offering services to an enterprise organization or directly to consumers, the demands of the service provider customer are increasing. Customers expect the service provider to accommodate growing but dynamic numbers of users and to provide constant and global on-demand access to resources and data. In addition, they expect elastic scalability and the ability to share, analyze, secure, and protect data at all times.

Competition and Time to Market

Technological advances such as virtualization; the unification of server, storage, and networking components; and interconnection across distributed service provider data centers have enabled a growing segment of service providers to expand their network offerings while taking advantage of previously unachievable economies of scale. As the number of service providers increases and the race to provide services continues, time to market becomes critical to ensure a foothold in this growing opportunity.

Cost Reduction

For a service provider to succeed, not only must it satisfy demanding customers, but it must do so at a lower cost to the customer. This becomes a challenge for many service providers as the design and operational challenges of providing services can be significant to overcome in a cost-effective manner.

Design and Operational Challenges

Service providers offering ITaaS have many complex design and operational challenges to consider when deploying their own solutions. Collectively, these challenges can cause great expense and delay in time to market when delivering an effective ITaaS solution. Some specific factors that a service provider will need to consider include:

- ☒ Vendor(s) selection process: single source versus integrated parts
- ☒ Design of appropriate architecture that will facilitate proper elastic scalability, load balancing, and dynamic workloads
- ☒ Strategy for security, data protection, and business continuity
- ☒ Documentation and development of service catalogs
- ☒ System integration and testing

Establishing Partnerships: The Key to Success

IDC believes that ITaaS service providers will become market leaders only if they are able to satisfy the concerns and demands of the customer while developing their environments quickly and efficiently and operating them cost-effectively.

To accomplish this, service providers, whether engaging in telco, media, entertainment, financial services, or healthcare, must first establish trusting, long-term partnerships with IT suppliers that will help to address the myriad issues among infrastructure choices, management processes, and go-to-market objectives.

Through its hardware and software technologies, professional services offerings, and established processes, EMC is one such company that is enabling the next generation of ITaaS service providers.

The EMC Solution: Enabling Service Providers

EMC has a long history of enabling efficient infrastructure environments. Building on its roots of storage and information management, the company has invested in and expanded capabilities across all aspects of IT delivery and has positioned itself to be a trusted partner among service providers looking to develop and deliver various ITaaS offerings.

Solutions

EMC takes a solutions approach to enable service providers to successfully monetize the cloud. Building on top of a foundational service delivery platform that helps eliminate siloed XaaS infrastructure, EMC offers a variety of IaaS, PaaS, and SaaS Proven Solutions to help service providers go to market more quickly, efficiently, and effectively. Based on customer feedback, EMC is building solutions that adhere to six foundational principles for service providers:

- ☒ **Secure separation** is the ability to ensure "separation" of customer data, whether through physical or, more likely, virtual means. This will affect elements of compute offerings but largely will be an expectation concerning data storage, security, and management.
- ☒ **Service assurance** is the ability to provide and manage a variety of flexible and enforceable SLAs. It is a critical measure and a growing, pivotal point of comparison among service providers.
- ☒ **Tenant in control** is the ability to provide certain controls and management to the end user or "tenant," be it in a self-service or more fully managed model. It may differentiate an "as a service" offering from a more traditional hosted or outsourced environment that is still under the control of an external third-party organization.
- ☒ **Service provider in control** is the ability for the service provider to control and manage its XaaS infrastructure and to integrate these environments into existing reporting, billing, and management systems.

- ☒ **Governance, risk, security/compliance** is the ability to address ongoing security concerns regarding data access and control, as well as the ability to address specific regulatory and/or business governance mandates imposed on the service provider and the end user.
- ☒ **Data protection** is the ability to provide the necessary near- and long-term protection and availability of customer data while also supporting varying components of business continuity.

Services

EMC Consulting assists service providers by providing cloud monetization strategies and actionable business and technology planning. EMC Consulting also helps service providers develop market segmentation models and associated XaaS portfolio strategies. From technology blueprints to organizational model redesign, EMC has the expertise to help service providers plan, build, and operate their XaaS initiatives.

Go-to-Market Considerations

While the need to develop a scalable, easily managed infrastructure environment that allows for maximum profitability is critical to the service provider, it is not all that must be considered. Identifying the provider's core competency and cultivating a successful go-to-market strategy will be equally essential among a growing and increasingly competitive cloud-based market.

EMC is committed to helping service providers and end users as they explore, develop, and monetize their cloud-based offerings. As a result, the company has developed processes for identifying, planning, and building monetizable cloud offers:

- ☒ **Strategy.** This is an initial engagement to define an effective go-to-market strategy to avoid the pitfalls associated with a "build it and they will come" approach by understanding the full gamut of implications in delivering an ITaaS offering.
- ☒ **Product inception and marketing.** Building on results from due diligence and business plan acceptance, organizations must develop a product marketing strategy, including solution specification and design, partner selection, and budget for piloting and launching the offering.
- ☒ **Marketing communications plan.** Marketing plans are necessary to deliver appropriate and timely internal and external communications regarding the new offering.
- ☒ **Integration certification.** This involves the ability to integrate the offering into the overall billing and customer support systems that the service provider currently deploys.
- ☒ **Operational readiness.** This involves analysis to determine service levels and develop the necessary governance structure around the general availability.
- ☒ **Sales.** The readiness of the existing sales force for new XaaS solutions should be assessed, including analyses of direct versus indirect channel selection, sales training, incentives, and support processes.

CHALLENGES/OPPORTUNITIES

There is a tremendous opportunity for EMC and its partners to help the growing population of service providers that seek to develop and deliver "as a service" solutions. In particular, EMC should consider the following as it looks to expand its capabilities:

- ☒ It will be no easy task to keep ahead of the rapidly evolving core of technologies pertinent to service providers such as virtualization, converged infrastructure, data protection, and information management. EMC must ensure that it will devote its vast resources to drive evolution and maintain fruitful partner relationships.
- ☒ With efficiency and time to market being of utmost importance for any service provider to deliver a profitable service, the pace and scope of consulting and integration services will intensify to a rapid and efficient delivery model. As such, EMC will need to continue to streamline its professional services offerings for these service providers.
- ☒ As the link between IT and core business goals becomes increasingly critical among enterprise organizations looking to use XaaS solutions, it will behoove EMC and its customers and partners to arm service providers with the ability to directly address or appeal to these customer-based business requirements. EMC is already well on this path and should continue to invest in these capabilities.

CONCLUSION

The role of the ITaaS service provider is rapidly becoming more relevant among enterprise organizations that are looking to satisfy rapidly expanding business goals and transform the way IT is provisioned, delivered, and managed.

For ITaaS service providers, there is much to consider. As the provider considers the best options to monetize its offerings, there are many complex issues to address that encompass everything from developing an infrastructure that will ensure optimum scalability and profitability to core competencies, go-to-market strategies, and regulatory/compliance considerations.

Engaging a trusted partner, such as EMC, which has many years of enabling efficient infrastructure environments through a broad portfolio of technology solutions and services capabilities, will prove to be the single most critical decision a service provider can make to ensure profitability over the long term.

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