

The Evolution of IT-as-a-Service

Impacts & Opportunities for the IT Value Chain Whitepaper



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Trends in the IT Services Industry

The information technology (IT) industry, in general, has evolved tremendously over the past thirty years. It's now to the point where, in one way or another, technology impacts our everyday lives. But interestingly there is one area of IT that until recently remained almost as it was thirty years ago – technology service and support.

Most IT service providers have always and continue to operate in a break/fix service environment. When a customer calls with an issue, the service provider drops everything to fix it. Under these circumstances, service providers have a difficult time forecasting monthly revenues and staffing needs, which has a huge impact on profitability. Add to this the intense competition, excessive customer turnover, low technician utilization rates, and shrinking margins that characterize today's market, and the result is IT service providers anxious to find a new way of delivering their services.

In 2000, N-able pioneered the concept of providing the channel with the tools to deliver high-value managed services to the small-and medium-sized business (SMB) market¹. We recognized that, for several reasons, IT service and support needed to change, particularly in terms of how the channel serviced their customers.

Consumers – end users, SMBs and enterprises – are also driving the demand for managed services; primarily because they have become increasingly more sophisticated and reliant on technology. Small business owners and large enterprises alike have IT systems that are becoming increasingly complex, inextricably linked, and difficult to manage. Even the smallest organization now has mission-critical systems that, when they fail, negatively impact the success of their business. And all organizations have the increased burden of meeting complex compliance requirements and keeping up with constantly evolving security threats. Consumers no longer want help with their IT infrastructure after something has broken. They want a service provider that can deliver better services, more efficiently, at a lower cost and help mitigate compliance and security risks.

As a result of these key drivers, the managed services market has expanded rapidly over the past several years, particularly in the under-served SMB market. According to Gartner, the SMB IT services market was estimated to be worth \$220 billion (US) in 2003 and is expected to grow at a compound annual growth rate (CAGR) of 7.6% from 2004 to 2008. Remote monitoring and management (RMM) is the hottest growing segment and is expected to grow at 36% CAGR through to 2008 in North America. A recent study by Forrester cited the SMB market at 48% of the overall US IT spending, stating that it will surpass enterprise IT spending by 2007.

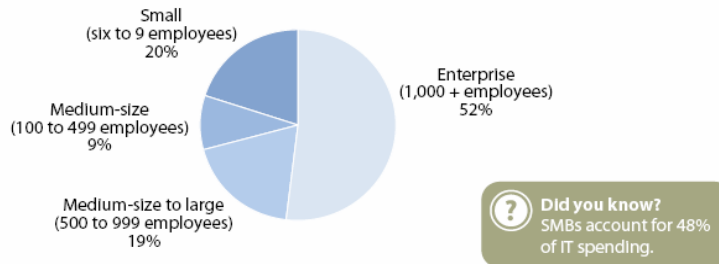
¹ Companies with less than 1000 employees.

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Figure 1 US SMB Spending Growth

1-1 Allocation of US IT spending by size of organization



Source: June 30, 2005, Trends "2005 Update: US Enterprise And SMB IT Spending"

Figure 1 – SMB vs. Enterprise Market

The market for managed services, as a whole, has also grown considerably, rising from \$7.9 billion in 2003 to an expected \$31.4 billion in 2006 for a CAGR of 58.4%. In terms of MSPs, Gartner states that the number of managed service providers in North America increased from 200 in 2001 to 450 in 2004. N-able estimates that there are approximately 1,000 MSPs in the North American market today.

This paper will examine key trends in the IT services industry – namely Software-as-a-Service (SaaS), managed services and Hardware-as-a-Service (HaaS) – and look at the impacts these trends have on today's IT value chain and the opportunities they create for the future.

The Impact of Managed Services on the IT Value Chain

With the rise of the new millennium back in 2000 the collapse of the technology industry changed the course of history for all members of the technology value chain – manufacturers (vendors), distributors and service providers. While this has been well-documented and litigated, another steadily increasing undercurrent is the fact consumers of IT have become increasingly more demanding, sophisticated and, most of all, reliant on technology. Along with these trends came a dramatic change in the way end-users and their companies wanted to consume technology, that being a more utility-based approach.

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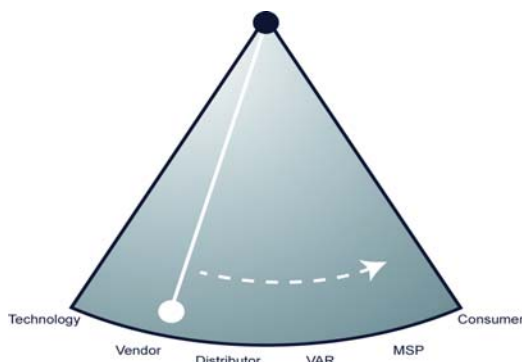


Figure 2 – IT Value Chain Pendulum Swing

Managed services has had a significant impact on the IT industry as a whole and, in particular, on the value chain. The “managed services factor” has greatly shifted the power away from technology and vendors to consumers and service providers (Figure 2). One of the most telling signs of this shift is that consumers no longer care what brand of router or firewall is in their network (for example); they are taking a “just make IT work” approach.

Our view is that managed services represents a *disruptive technology model* that will drastically change the IT value chain as we know it today. Over the next few years, managed services will form the gateway to true utility computing, where technology hardware, software and support are delivered and bundled as a service.

The big question is, “Where and how does the traditional distribution channel fit into the new IT value chain?”

Vendors

It is no secret that the large technology vendors, and their technology, have dominated the IT sector for as long as anyone can remember. Two key trends have begun to potentially re-define the business models of the “gorilla vendors” - the growth of the SMB market and SaaS. Both of these trends greatly challenge business models based on the traditional enterprise software model, which has been slowly eroding over time.

Going forward, it is clear that vendors need to pay more attention to their channel programs to ensure that they enable service providers to deliver some form of annuity-based services. As well, management software vendors will increasingly require their technology to be MSP-enabled.

Distributors

Traditionally the distribution industry was built on the premise of connecting vendor technology and programs to the channel through enhanced marketing, volume discounts, financing and more scalable provisioning and logistics. Over time, these attributes or “value-add” have become increasingly more difficult to measure in terms of the ultimate value distribution actually delivers. The fact a large percentage of today’s software (with hardware moving towards this model) is available via the Web creates further challenges for distribution.

Managed services further complicates matters for distribution, in that it deals with the delivery of people and process and takes a service-centric approach to technology – something distribution lacks in terms of core competency. As such, distribution has thus far not impacted or influenced the rise of managed services in any tangible way.

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VARs and System Integrators

Unlike most industry trends, managed services has actually grown at a “grassroots” level through the channel of value-added resellers (VARs) and system integrators that service the SMB market. Today, these service providers are motivated to adopt the managed services model for primarily business reasons rather than technology. In fact, most service providers today understand that they must evolve to a service-centric model in order to survive and prosper in the future.

Telecommunication and Internet Service Providers

2006 will see a new market entrant in the SMB managed services space – telcos and ISPs. Their focus will be primarily in three areas: managed network, security and voice-over-IP (VoIP). These service organizations pose a significant threat to the IT channel in terms of product-centric managed services due to their market reach, and bring fear of commoditization to the market place. Their participation will be mainly focused on more product-centric SaaS initiatives through the customer service portals they already have in place.

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With all the excitement around managed services these days, it’s sometimes difficult to ascertain the real impact it’s having on the IT services industry. But one thing is certain, managed services has moved beyond being simply a trend; it is a model that is changing how technology is delivered and consumed.

Figure 3 below depicts what N-able sees as the *Evolution of IT-as-a-Service*. It categorizes the three major utility IT services that are either currently available to end customers or will be soon – SaaS, managed services and HaaS.

The SaaS model, initiated in the mid-90s, was driven primarily by market-leading vendors like Salesforce®. About five years later in 1999, a trend towards managed services began to develop. This trend, however, evolved at a grassroots level through the channel for business reasons – recurring revenues, customer satisfaction, improved profits and increased business valuation. 2006 will see the dawn of HaaS, which will introduce hardware and infrastructure in a consumption-based model.

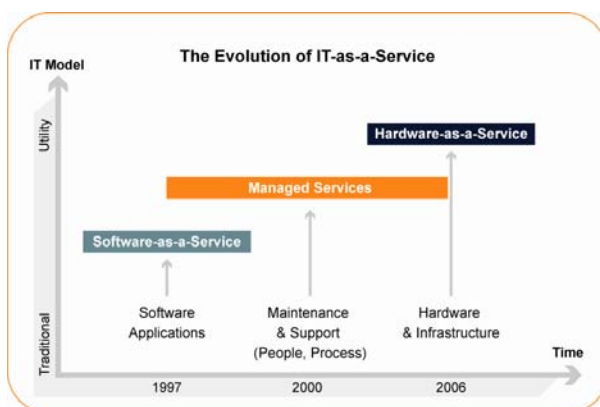


Figure 3 – The Evolution of IT-as-a-Service

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Software-as-a-Service

The SaaS model has, and will continue to have, a major impact on software licensing for years to come. Mainly because it's faster to deploy than traditional software, requires no capital expenditures, has lower maintenance costs, is more flexible and organizations don't need to worry about hosting or management issues. A recent IDC study noted that over 70% of worldwide software licensing could evolve to a subscription, SaaS-based model by 2010. Digital River®, a leading e-commerce outsourcer for online software distribution, states that,

"In the next two years it is estimated that the digital software delivery market will represent \$6.4 billion and 124 million units in sales – roughly matching today's boxed software market".

To date, the SaaS model has been primarily delivered by software vendors who provide application and related services directly to medium and large enterprises. The channel has yet to participate in SaaS in a major way, mainly because there are limited options available for service providers looking to offer a portfolio of software as services via the Web. Despite this, the SMB market is beginning to adopt the SaaS model as they increase their demand for enterprise-type applications such as customer relationship management (CRM).

MSP-enablers, such as N-able, have worked to transform the channel since 2000. Like managed services, channel enablement programs are critical for successful SaaS go-to-market strategies. In addition, Web services standards will be important for the marketability and delivery of an interoperable suite of tools.

It is clear that, once the channel becomes a key participant in SaaS, the model will then grow exponentially in adoption and acceptance. The challenge for the channel will be the large vendors going direct with SaaS initiatives of their own.

Managed Services

Over the past several years, managed services has become an increasingly "hot topic" within the technology sector, particularly with value-added resellers (VARs) and system integrators. Today, managed services is widely accepted as the only profitable means for service providers to deliver IT service and support to their customers. The new standard is that devices and applications must have the capability to be remotely managed.

We estimate that there are currently more than 60,000 service providers in North America; 1,000 of them have begun the MSP transformation process and are at varying stages of service maturity. Today, it is not a question of "if" IT service providers and resellers want to become MSPs, it's a question of "when".

There has been some debate as to the meaning of managed services. Some see it as a generic term or new label for IT services, while others think it's simply just remote monitoring and management. But it involves much more than that. According to the MSP Alliance,²

"Managed services provides organizations with predictable, business-focused IT services that optimize operations, manage risk and deliver measurable business value."

² The MSP Alliance is a global organization made up of service providers and technology enablers who work in a collaborative effort to define, promote and educate the Managed Services Industry and the end-user consumer on the adoption and successful use of technology through Managed Services.

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Managed services are typically delivered in a monthly, subscription-based model, and leverage Web-based remote monitoring and management tools that operate across distributed, multi-customer infrastructures. While managed service engagements generally include SaaS elements for remote IT and security monitoring and management, there are many types of managed services, including:

- Remote monitoring and management (identify and remedy problems before they impact the business)
- Supplemental support (provide specific services to support internal IT efforts such as patch management or remote storage)
- Specialized services (i.e. manage elements of the IT system such as security, application, VoIP)
- Fully managed services (outsourced IT)
- “SKU-able” managed services (“managed” support packaged with a product)

Figure 4 outlines the N-able MSP Maturity Model, which N-able developed to help organizations understand where they are in the service maturity process. The model, which is based on industry best practices, Gartner® analyst research, and observed behaviors from N-able’s own partner base of managed service providers, helps service providers assess their business and develop a plan to improve their managed services offering through each of the five levels.

Over the past two years more service providers have begun to reach the “Managed” level. However, the majority of managed services being delivered in the SMB market remain at the Reactive or Proactive level.

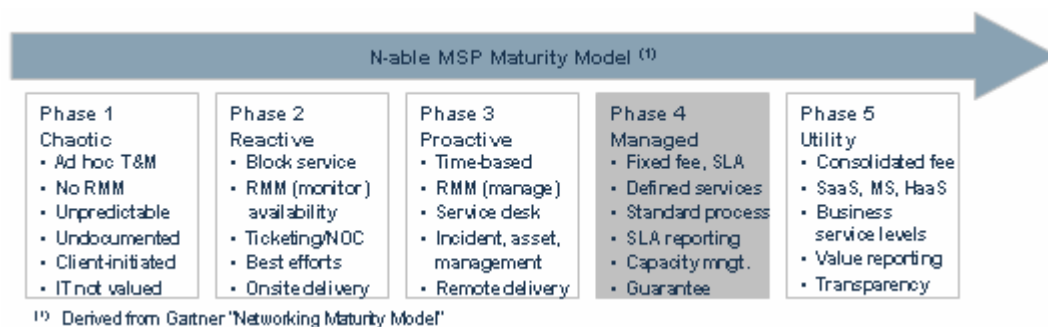


Figure 4 – N-able MSP Maturity Model

Beyond the traditional IT service providers, there are endless applications for managed services technologies and methodologies. Whether it be a hardware or software vendor, a telco or a distributor, the new standard is that devices and applications must have the capability to be remotely managed. This results in monthly maintenance and support services being delivered in a proactive and profitable model.

Hardware-as-a-Service

The question is, “if software and services (people) can evolve to consumption-based models, then why can’t hardware?” HaaS is the logical next step in the IT service industry’s natural evolution towards utility computing. It is no secret that the majority of IT spending is in the form of capital expenditures for hardware and infrastructure.

N-able developed the HaaS concept after observing the challenges its partners and their customers were having with the hardware components of a managed services engagement.

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What is Hardware-as-a-Service?

Since this is a new concept being introduced by N-able, there are no industry standard definitions available. N-able defines Hardware-as-a-Service as follows:

“Hardware-as-a-Service is the delivery of information technology hardware and infrastructure, along with the related proactive maintenance and support, as a consumption-based, monthly subscription service required to operate a business effectively.”

In basic terms, HaaS completes the equation of delivering IT as a utility. Typically there are various players involved in a HaaS transaction, namely: the vendor, distributor, service provider, customer and finance company. HaaS moves beyond conventional leasing that exists today in the market, although the mechanics of the transaction are similar.

How applicable is HaaS for today's MSPs?

Over the past several years, managed services programs have grown in terms of sophistication and the number of components involved. The logical next step for MSPs is to offer hardware in a consumption-based model. This is particularly the case as MSPs move from time to value-based managed service engagements. Typically value-based engagements require significantly greater depth in terms of knowledge of the customer's infrastructure, business goals, financial and risk profile. Bringing hardware into the equation strengthens the MSPs service offering and relationship with the customer.

HaaS is particularly appealing to those customers conditioned to paying monthly for IT service and support, as opposed to on an ad hoc basis. For example, a small business may have a monthly operating budget of \$1500 for IT expenditures such as managed services, CRM and hosting services. But when faced with a \$50,000 IT infrastructure upgrade, HaaS provides a very viable alternative by moving a highly depreciable capital expenditure into the organization's operating budget.

A good example of an industry where equipment leasing has worked well for years is in the photocopier business. In this scenario, the hardware, maintenance and support for photocopiers are all wrapped up into one monthly contract with mechanisms, such as cost-per-copy, to determine consumption of toner and other consumables. Without financing alternatives like these, very few businesses would purchase \$50,000 photocopiers outright.

How do you implement a HaaS strategy?

There are some key factors to take into consideration when determining how to go-to-market with a HaaS offering. We recommend HaaS as an add-on to an MSP's line of business – provided they have a solid background as a value-added reseller offering the hardware in question. The following are some basic guidelines to follow:

- **Hardware** – Menu of hardware to be offered should map to managed services business (i.e. managed network would include a listing of standard IT infrastructure components).
- **Financing** – Service provider must determine financing vehicle they will leverage to finance the hardware. There are three options: bank financing, leasing with recourse to MSP and non-recourse leasing.
- **Documentation** – Documenting the flow of transactions and services in a service level agreement (SLA) is critical to establishing metrics of success, setting limits on liability, establishing customer trust and establishing criteria for the level of service delivery.
- **Pricing** – Monthly pricing would include hardware, carrying costs, implementation and maintenance and support costs. Typically the total per device and/or user monthly cost is how HaaS is presented to customer (i.e. per desktop/seat).

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- **Packaging** – Typically HaaS engagements will employ an “everfresh” approach to the hardware deployed based on time and/or warranty provisions and expiry.
- **Management** – Remote monitoring and management, including extensive asset discovery and management, are key to managing the HaaS infrastructure properly. Tracking and reporting capacity levels along with asset usage, lifecycle, configuration, change, warranty and finance terms are also important.

Applying the theory to practice is often challenging, particularly when it comes to something new and innovative. As previously mentioned, it is important for an MSP to have a deep understanding of what exactly they’re offering and that this is an add-on to their current managed service practice. We recommend MSPs have a well-documented MSP Engagement Model, including network assessment and audit procedures detailing planning, design and implementation procedures for IT infrastructure. We further recommend that MSPs focus their HaaS offering to core areas of expertise rather than trying to be “all things to all people”.

A basic example for a 20-user organization:

Managed services (ongoing monitoring, management and support)

- \$60/desktop x 20 = \$1,200/month
- \$250/server x 2 = \$500/month

Network and Infrastructure Upgrade (based on network assessment/customer needs analysis)

- \$20,000 x finance factor = \$640/month

Presentation to customer (3 year fixed fee contract)

- \$2,340/month or \$117/desktop/month
- Ability to add new user for additional \$150/desktop/month
- Additional services or infrastructure can be added to Schedule A (increase the monthly fee)
- Other monthly service fees per N-able Utility IT Matrix (Figure 5)

Through proper network assessment, aligned to business goals, along with ongoing monitoring and management of the IT infrastructure, the service provider will gain the in-depth knowledge to make recommendations for infrastructure upgrade at the inception of the engagement and on an ongoing basis. It is at this stage that the true value of HaaS can be positioned to the customer – the idea of paying one monthly fee to one organization that is accountable for uptime and performance of their IT infrastructure. This will clearly differentiate the MSP from their competition.

What are the risks vs. benefits of this model?

From the end customers’ perspective, HaaS has many benefits. It helps them better predict overall IT costs, allows them the simplicity of dealing with only one organization, offers guaranteed service delivery based on their SLA, and there’s no capital expenditures.

For MSPs, most of them interested in the HaaS model already deliver VAR, system integration and IT services. The ability to offer software, system management and hardware as services provides them with a significant competitive advantage over service providers or vendors that can only offer one or two of these services. Adding HaaS to managed services should improve ‘stickiness’ and longevity of the customer engagement. The HaaS model will also increase an MSP’s service revenues while decreasing low-margin product revenues.

One of the main risks for MSPs moving to a fixed-fee model is the instability and unpredictability of their customers’ IT infrastructure. HaaS allows the MSP to implement the technologies that are the most supportable by their organization thereby reducing the risk associated with unpredictable service delivery costs.

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Adding hardware to the equation generally adds more financial risks, unless the MSP is leveraging a traditional non-recourse leasing model.

In a non-recourse lease, the customer is directly responsible to the leasing company for any missed payments or contract breaches. In a recourse lease, if the customer does not pay, the leasing company will demand payment for the hardware/software lease costs from the MSP. Clearly, a non-recourse lease is better for the MSP as the risk is being carried by the leasing company.

HaaS removes a significant barrier that exists in managed services today. In 2006, leading MSPs will begin their next evolution from managed services to utility IT services.

Utility IT: A New Role for MSPs

Our discussion has focused on the three emerging service trends and their impact on all members of the IT value chain. Figure 4 provides an overview of the evolution of an MSP in particular, along with some key characteristics of each maturity level. Success can generally be mapped to this model and includes substantial annuity service revenues, double-digit profitability and significantly increased business valuation.

What's interesting, however, is the fact that managed services remains a missionary sale to the end customer and something most of them really don't understand. The fact that most MSPs do not provide hardware or software as part of a total managed solution ultimately impedes adoption to the model. Rather, what happens is that the typical managed service engagement creates many barriers (risk) for the customer, such as:

- Up-front fees for network assessment
- Capital outlay for infrastructure upgrade
- SLA with promises vs. guarantees of service quality
- Long-term commitment (1 to 3 years)

To convert the \$374 billion SMB market MSPs will need to become the gateway to deliver a true utility IT service to the customer – software, hardware and services.

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N-able Utility IT Matrix	MSP Service Delivery Model		
SMB Basic IT Needs (by priority)	SaaS	Managed	HaaS
1 - Desktop/laptop		X	X
2 - Desktop applications	X	X	
3 - Network infrastructure		X	X
4 - Internet	X	X	X
5 - Email	X	X	X
6 - Print/Copy/Fax		X	X
7 - Website (hosting/content)	X	X	
8 - Business applications (CRM, ERP)	X	X	
9 - Storage	X	X	X
10 - Security	X	X	X
11 - Web services (extra/intranet)	X	X	
12 - VoIP	X	X	X

Figure 5 – N-able Utility IT Matrix

Figure 5 lists the basic technology needs and priorities of a typical SMB and maps them to a recommended service delivery model by the MSP, which is the Utility maturity level. The key to the success of this model is that the SMB needs to see the value in having the MSP as its central point – one provider, one service, one monthly fee. Reviewing the services listed above horizontally, one can see most have already become commodities, such as Internet access and bandwidth. Yet when packaged together into one monthly managed service, the provider can realize significantly increased margins. Our view is that convergence must happen in order to effectively deliver utility IT – the MSP will become that inflection point.

Conclusion

In 2006 and beyond, we will continue to see rapid adoption of new and innovative IT-as-a-Service initiatives. Hardware-as-a-Service will evolve much more quickly than SaaS or managed services did and will again be driven by the channel of MSPs in the market today. Unlike the other emerging service models, major distributors should have a significant impact on HaaS. Distributors have most of the key prerequisites to make HaaS marketable, scalable and profitable: supply chain management, major vendor relationships, channel support, training infrastructure and financial services – one of the top growth services in the industry today.

It is clear that the evolution of HaaS will begin by leveraging financing mechanisms currently available to bundle hardware, software and services into one monthly fee as employed successfully in other industries. Over time, the commoditization of components will continue to increase the percentage of “soft costs” that are contained in hardware such as a desktop, server or firewall. Ultimately, HaaS will evolve and impact the manufacturers of hardware much the same as we have seen in the software industry, whereby the innovators will begin to sell their hardware as a monthly service.

The evolution of IT-as-a-Service will define the new IT value chain of the future. As technology moves toward a more utility-like model, managed service providers will become even more entrenched with their customers by consolidating their ongoing technology and service requirements into one monthly “pay-as-you-grow” subscription and decision.

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About N-able Technologies®

Founded in March 2000, N-able Technologies is the market leader in transforming service organizations into managed service providers (MSPs). N-able's combination of products, people and processes help service providers, develop, sell and deliver highly profitable managed services to the small- and medium-sized business (SMB) and mid-enterprise markets. N-able's product line provides complete solutions to monitor, manage and optimize information technology and security from a business perspective to evolve IT services from reactive to proactive to managed. www.n-able.com

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