**WHITE PAPER**
Cloud Computing | April 2011

# IT Management as a Service

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# executive summary

## Challenge

Enterprise cloud-computing adoption is accelerating rapidly. The medium for delivering Platforms-, iInfrastructure- and Software-as-a-Service has gone from experimental to a full-blown necessity for business computing. Service providers are being called on to deliver more applications in an "-as-a-service" model to meet enterprise IT budget constraints, mobility and accessibility requirements. Service providers must develop efficient and effective IT Management-as-a-Service models and offerings to capitalize on their customers' needs, or else risk losing accounts to cloud-ready competitors. Ultimately, service providers will need to make a choice of whether to resell IT assets hosted by partner organizations or develop their own infrastructure and application platform for delivering application services.

## Opportunity

IT-as-a-service—encompassing applications, servers, storage and infrastructure management—will explode into a multibillion-dollar marketplace over the next five years. ***According to IDC, "Public IT cloud services will grow at over five times the rate of traditional IT products. Worldwide revenue from public IT cloud services exceeded $16 billion in 2009 and is forecast to reach $55.5 billion in 2014, representing a compound annual growth rate of 27.4%. This rapid growth rate is over five times the projected growth for traditional IT products (5%)."***[1] The adoption rate for small and midsized businesses will be exponentially higher as they have lower cost tolerances and the need for advanced, cost-effective applications delivered as-a-service. Service providers developing cloud-computing offerings will ride the adoption wave to become not just the source of IT-as-a-service, but indispensible business partners to subscribing.

## Benefits

Service providers tapping into the cloud-computing trend by offering IT-as-a-service will reap tremendous benefits through protracted customer engagements. Rather than selling software on a perpetual licensing model for on-premise installation, service providers will provide application subscriptions on a recurring payment scheme that has a higher profitability and total yield. They will become indispensible IT partners to their customers and the source of application, portfolio-management and data integrity. And, they will have a far greater probability of expanding account activity as customer needs change and cloud adoption increases.

Section 1

# Cloud transformation of application delivery

Cloud computing has as many definitions as it does potential products and customers. In the last year, it's become quite vogue for IT vendors and service providers to describe every discreet offering delivered over the Internet "-as-a-service." Conventionally speaking, the most common forms of cloud computing are Infrastructure-as-a-Service, Platform-as-a-Service and Software-as-a-Service, but the potential offerings are hardly limited to these three core segments (See Table 1: Definitions of cloud-computing offerings, below). Some providers have even taken to using the uber-umbrella term "everything-as-a-service."

## Table 1: Definitions of cloud-computing offerings

| Product | Function |
|---|---|
| Platform-as-a-Service (PaaS) | A hosted infrastructure on which users can develop applications with programming languages or tools supported by the provider. |
| Infrastructure-as-a-Service (IaaS) | Hosted resources for deploying and running processing, storage, networks and other fundamental computing resources on which users can run arbitrary software. |
| Software-as-a-Service (SaaS) | Hosted applications accessible to users through a thin-client or a Web browser. |

Increasingly, legacy infrastructure and applications find new life in the cloud-computing era. This migration to the cloud is making enterprise-class hardware and software more accessible and affordable as the cost structure for the consumer is converted from a capital expense to an operational expense. As demand for cloud-based services increase, so too will the number of technologies delivered as a service. Email, collaboration applications, off-site storage and security applications dominate the cloud-computing landscape, but increasingly new applications such as business intelligence, virtual private data centers, enterprise-resource planning and video-conferencing services are emerging through the cloud.

The benefits of cloud computing are prompting enterprises to increase expenditures for cloud services. Over the next five years, enterprises will seek more cloud services and support across all delivery segments, creating a massive opportunity for service providers who deliver cloud platforms, provide cloud-hosting resources and the individual cloud tools.

Service providers are increasingly being called on by enterprises to deliver IT Management-as-a-Service, or the ability to deliver management and security applications as hosted delivery options. Cloud computing requires investment in data centers, resources distributed across wide geographies, redundancy for high availability, software for management and monitoring utilization, security and storage. And the entire infrastructure needs to be scalable to meet spike utilizations for existing subscribers and future business needs.

Service providers have choices for delivering IT-Management-as-a-Service: resell the services hosted by another provider, or adopt and deploy the service delivery infrastructure on their own platform. Each option has its benefits, and the ultimate choice is contingent upon the service provider's market need and business goals.

CA Technologies recognizes that not all service providers want or need to build the infrastructure to deliver cloud-computing services. Our IT Management-as-a-Service offering gives service providers the option to resell and support hosted cloud products provided by CA Technologies or white-labeled under their brand without the cost in time and dollars developing the delivery infrastructure. Service providers can leverage services hosted by CA Technologies for infrastructure management, project portfolio management, service management, security, backup and recovery, and energy management and sustainability. The same solutions are available for deployment on the service-provider network for delivery as a hosted service.

In this white paper, we will detail the service offerings and benefits for service providers to deliver IT-Management-as-a-Service, and the benefits of standardizing on software from CA Technologies for IT management services.

## Section 2

# Inside the IT Management-as-a-Service portfolio

Service providers have specific needs in delivering cloud services. They require manageability, monitoring and reporting, security and storage. CA Technologies built its hosted cloud services with a large set of offerings with best-of-breed applications that give service providers the ability to confidently deliver IT-as-a-service to their customers.

The IT Management-as-a-Service portfolio from CA Technologies addresses all the functional needs of a cloud service provider delivering hosted applications, virtual servers or infrastructure resources. The portfolio includes cloud services for infrastructure management, project portfolio management, service management, security, backup and recovery, and energy and sustainability (see Table 2). CA Technologies gives service providers the option of reselling these applications as a service hosted by us, or deploying the portfolio as the core of their hosted management offerings.

## Table 2: The CA Technologies IT Management-as-a-Service portfolio

| | On Demand — Hosted by CA Technologies | Hosted by MSP |
|---|---|---|
| Infrastructure Management | Nimsoft Unified Monitoring™ | Network Traffic Analysis<br>Network Fault and Performance<br>Unified Communication Reporting<br>Application Performance Management |
| Project and Portfolio Management | CA Clarity™ PPM On Demand<br>CA Clarity™ Grants Manager On Demand<br>CA Agile Vision™ On Demand<br>CA Governance, Risk & Compliance Manager (CA GRC Manager) | CA Clarity PPM<br>CA Clarity Grants Manager<br>CA Agile Vision<br>CA GRC Manager |
| Service Management | CA Service Desk Manager On Demand | CA Service Desk Manager |
| Security | CA Arcot A-OK™<br>▪ CA Advanced Authentication Server (formerly known as CA Arcot WebFort®)—Multichannel authentication<br>▪ CA Risk-Based Authentication Server (formerly known as CA Arcot RiskFort™)—Risk assessment and fraud detection | Federated Single Sign On<br>Identity Governance<br>Identity Delivery |
| Backup and Recovery | CA Instant Recovery On Demand | Remote Data Protection and DR<br>High Availability System Failover |
| Energy and Sustainability | CA ecoGovernance On Demand | CA ecoGovernance<br>CA ecoMaster |

For infrastructure management, CA Technologies offers Nimsoft Unified Monitoring, a tool that monitors cloud-based hardware and software assets. The tool gives service providers in-depth reporting on the performance and utilization of assets such as servers and storage devices, as well as applications such as Microsoft Exchange. Nimsoft Unified Monitoring gives service providers the intelligence required to maintain uptime and service-level requirements.

For project portfolio management, CA Technologies offers a number of solutions for monitoring cloud service, and asset utilization and need. Chief among them are CA Clarity PPM and CA Agile Vision, which give service providers the automated tools for understanding how enterprises are consuming cloud-based resources and projecting future capacity needs. These tools give service providers the ability to work with enterprises in planning the expansion of existing resources and expanding cloud use. PPM tools are equally valuable in enabling service providers to help enterprises understand cloud costs and ROI.

For service management, CA Technologies offers CA Service Desk Manager, a service support system that automates the intake and routing of trouble tickets from customers. Service providers can triage, resolve and escalate the service ticket faster and more effectively than with conventional help desk solutions. The objective is the identification and resolution of performance problems that impede the operational benefits of the hosted cloud service.

For security, CA Technologies offers a variety of identity management solutions, including CA Advanced Authentication Server and CA Risk-Based Authentication Server. Since cloud services are all about accessing data from any time, place and device, identity management and authentication services are imperative for ensuring only authorized accountholders gain access to Web-based resources. Hosted services from CA Technologies include options for managing identities and requiring multifactor authentication to safeguard against unauthorized entries.

For backup and recovery, CA Technologies offers CA Instant Recovery On Demand, a turnkey business continuity and disaster recovery service that helps service providers ensure their customers have continuous availability to applications and data—even in the event of a critical systems failure or disaster—without additional IT infrastructure costs.

For energy management and sustainability, we offer CA ecoSoftware to help customers measure, assess and report their environmental impact and performance, align their sustainability initiatives with business goals, and automate sustainability processes across geographic and functional boundaries, helping to accelerate energy and corporate sustainability efforts.

The CA Technologies cloud portfolio is designed to give subscribing service providers the ability to seamlessly resell these services to their clients.

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## Section 3

# Why resell a hosted service?

Cloud computing is gaining traction at an accelerated rate. More legacy products are being converted to cloud-based services, and service providers are finding it challenging and expensive to keep pace with the rate of change and still capitalize on the cloud trend. Service providers who haven't developed cloud offerings or a cloud delivery infrastructure are looking at an expensive, difficult and lengthy development cycle.

Adopting a model of reselling and supporting a hosted cloud service has several benefits: faster and less expensive entry in cloud services; reliability of a proven hosting provider; immediate scalability in resources; and lower maintenance costs (See Table 3: Benefits of reselling cloud services). Essentially, service providers opting to resell hosted services to their customers gain all the benefits of delivering cloud services without the burden or expense of building platforms.

## Table 3: Benefits of reselling cloud services

| Product | Function |
|---|---|
| Low cost | No need to build expensive data centers, multitenant applications and distributed networks; hosted services provided |
| Speed | Untethered by infrastructure requirements, service providers can enter the cloud market quickly and focus on sales |
| Scalability | Easily expand capacity of hosted service as their customer base grows and client needs expand |
| Fast ROI | Recognize immediate ROI with hosted services as the investment costs are significantly lower |
| Low maintenance | Hosted services are managed and supported by the hosting company; reseller is not burdened with the expense of upgrades |
| Future proof | Gain experience with cloud systems and business models through hosted services, and always have the option of building their own infrastructure for independent cloud delivery |

Some service providers worry about account ownership when they resell another provider's hosted services. As a CA Technologies partner in the cloud, service providers maintain the account relationship and have the ability to sell value-added services for designing and implementing cloud services for the enterprise customer. Many service providers find that enterprises desire the integration of cloud services with their on-premise assets, which leads to lucrative professional services opportunities.

Through the management tools provided by CA Technologies, service providers are able to measure the consumption, quality of service and service needs of their clients to plan capacity needs and expand service offerings within the enterprise client. Insights such as utilization needs make service providers an invaluable resource to the enterprise in planning and fulfilling future cloud adoptions and migrations.

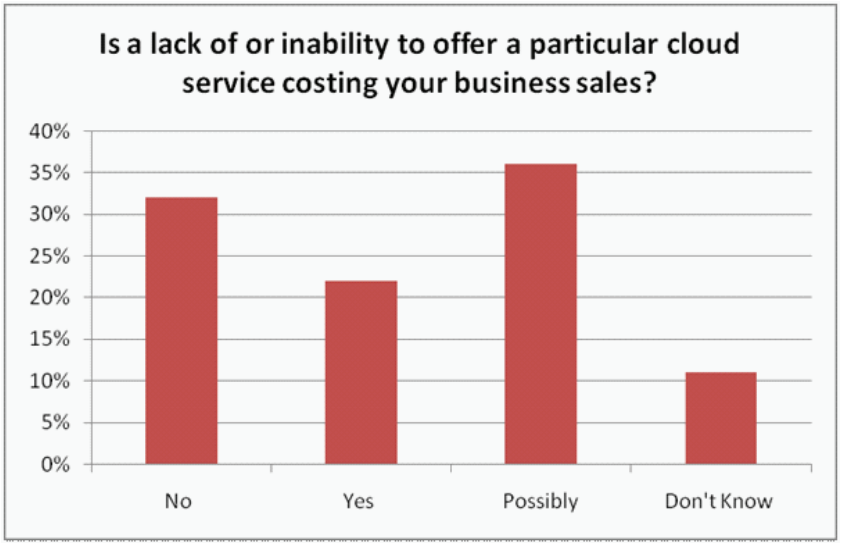
Reselling hosted cloud services such as those offered by CA Technologies is a fast point-of-entry into the cloud-computing market, not a limiter of future cloud expansion and growth. Reselling IT Management-as-a-Service from CA Technologies can be seen as building a foundation for future expansion into cloud platforms for independent service delivery. The management tools and functions of the hosted services are essentially the same as those in CA Technologies cloud platforms stack: All skills and experience are transferable if and when a service provider migrates to its own infrastructure.

According to research by the Cloud Convergence Council, one in four service providers say they're losing sales because they lack the cloud-computing products desired by their customers (see Figure A: Cloud shortcomings' impact on service provider sales). Another third believe shortcomings in cloud computing services is costing them business. The reselling of services hosted by CA Technologies is the fastest, most economical means of entering the cloud market and capitalizing on existing and future opportunities.

**Figure A**

The impact of cloud shortcomings' on service provider sales

Source: Cloud Convergence Council, January 2010[2]




## Section 4

# Being the hosting service

The CA Technologies IT Management-as-a-Service portfolio isn't exclusively a reseller opportunity. Service providers can use the same applications in their data centers to provide cloud-based management services to enterprises. The portfolio is extendable to provide hosted cloud services to other resellers, as well.

Using management application portfolios such as those provided by CA Technologies has many benefits. Service providers operating independently have complete control over pricing, service design and profitability. They also have the option to develop additional, separate service offerings from their core management systems to extend their cloud portfolio.

But being the host of cloud-based management services does come at a cost. Service providers must invest in a scalable, flexible platform infrastructure to host and support the cloud applications. To meet consumer expectations, service delivery infrastructure must have high availability, reliability and integrity. The cost of such delivery platforms can vary depending on the scale of service delivery and the geographic distribution of services. Service providers are also subject to regulatory compliance requirements for security and privacy, which adds to the costs.

Hosting applications doesn't preclude service providers from working with software providers in go-to-market strategies. Service providers can partner with software companies such as CA Technologies to develop markets and accounts. Ongoing sales and marketing relationships are mutually beneficial since the increased consumption of licenses through subscriptions benefits both the service provider and the software publisher.

Service providers who host their own management applications have the choice of developing channels for selling their offerings to end users. Not every service provider wants or can afford the expense of maintaining an application platform. The IT channel is struggling to find its position in the cloud-computing era. Many value-added resellers and managed service providers are opting to resell hosted cloud products rather than building their own offerings. This increasing demand for re-sellable cloud offerings will give service providers a ready channel to extend their sales capacity and accelerate their ROI.

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## Section 5

# Conclusions

Service providers have only begun to scratch at the full potential of cloud computing as a business and revenue model. Over the next decade, enterprises will steadily increase their consumption of cloud-based services and, conversely, decrease their reliance on legacy on-premise technologies. During this period, savvy service providers will build cloud offerings and deliver cloud services that best meet their enterprise customers' needs.

Service providers have choices for how to adopt and deliver cloud services. Each option comes with different risk/rewards equations. The more a service provider invests into cloud computing as a product offering, the greater the return on investment.

CA Technologies has crafted its cloud-computing strategy around supporting service providers with the only end-to-end cloud management and enablement portfolio, and resources to make cloud computing a reality. With CA Technologies, service providers are not only launching into the next generation of IT delivery, but future-proofing their investments in infrastructure, software and service offerings. Through the CA Technologies standardized and integrated cloud portfolio and infrastructure, service providers are able to build optimized service delivery systems that generate and retain their profitability.

IT-Management-as-a-Service from CA Technologies gives service providers the fastest and most cost-effective means for entering the cloud-computing marketplace. The best-of-breed management tools give service providers transparency into asset and resource utilization, and complete control over account maintenance and planning. And the skills and experience gained through the IT Management-as-a-Service offering are transferable if the service provider ever chooses to develop its own cloud platform.

CA Technologies is an IT management software and solutions company with expertise across all IT environments—from mainframe and distributed, to virtual and cloud. CA Technologies manages and secures IT environments and enables customers to deliver more flexible IT services. CA Technologies innovative products and services provide the insight and control essential for IT organizations to power business agility. The majority of the Global Fortune 500 rely on CA Technologies to manage their evolving IT ecosystems. For additional information, visit CA Technologies at ca.com.

1 IDC, Worldwide and Regional Public IT Cloud Services 2010—2014 Forecast, Doc #223549, June 2010

2 Cloud Convergence Council (Virgo Publishing and The 2112 Group), Cloud Convergence Trends Survey, January 2011



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