



## Cloud 'Brokers' Can Help ISVs Move to SaaS

### Executive Summary

Many large organizations are purchasing software as a service (SaaS) rather than buying and hosting software internally. Industry researcher International Data Corp. says worldwide sales of public IT cloud services will reach \$55.5 billion in 2014, a compound annual growth rate (CAGR) of 27.4%. But for independent software vendors (ISVs) that built their business around the traditional model of selling licenses and maintenance agreements, moving to SaaS involves wrenching changes in everything from their business model,<sup>1</sup> to their development strategies and their own IT requirements. A new type of cloud provider, a cloud broker, can deliver new "solutions as a service" to help ISVs transition to SaaS with the least possible risk, while protecting their margins.

This white paper will explore the business and technology challenges for ISVs moving to a SaaS model and highlight how cloud brokers can overcome many of them by providing entitlement, analytical, billing/payment and security services.

### Major Challenges

SaaS turns the traditional model of software delivery on its head. Rather than purchasing licenses, paying an annual maintenance fee for upgrades and support and running applications in-house, SaaS allows organizations to buy only the number of "seats" they require at any time. This is not only less expensive than the traditional license model,

but it also allows them to reduce or increase their software purchases as their needs fluctuate.

However, SaaS requires ISVs to transform from software developers to services providers. From an operational perspective, this requires new capabilities, such as meeting service level agreements, establishing real-time usage monitoring and billing capabilities and meeting strict security requirements.

The robust infrastructure required to provide SaaS services 24x7 requires a substantial investment. The business challenges are even greater, ranging from the dramatically lower margins provided by SaaS, to changes in cash flow and pricing models, to requirements for customer support.

Faced with all these challenges, and because there are no standard pricing models, ISVs should try various SaaS business models before committing to a full build-out of SaaS business processes and technology infrastructure. They might, for example, begin with a free version with limited features, released to a limited customer set, to establish a presence in the market and begin getting feedback while aligning their internal processes with a subscription model. Given this incremental, experimental approach, it is usually easier and more cost-effective to test the market using a cloud broker that can provide the platforms and capabilities for these early rollouts. This means less capital spending and internal change management for

the ISV, enabling the vendor to move to SaaS as easily and profitably as possible.

### The Role of Cloud Brokers

A cloud broker is an intermediary between the ISV and various cloud providers. It helps the ISV choose the platform or platforms that best suit its needs; deploy and integrate applications across multiple clouds; and/or enable the ISV to move between cloud platforms. By sourcing services and capabilities through cloud brokers, the ISV can focus on its core competency of understanding and meeting customer needs with compelling software solutions.

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A “cloud broker” can add value through vertical solutions, based on its knowledge of the specific industry the ISV is targeting. The broker can also

provide functions required across verticals, such as entitlement, subscription management and billing. Additionally, the broker can take responsibility for operational functions that were not required, or were not as critical, in the earlier license-based delivery model.

Here are some examples of the “services as a solution” that brokers can offer, spanning the SaaS value cycle, from the creation of the service, through consumption and billing.

- **Entitlement Service:** ISVs traditionally relied on per-module licensing models and software audits to ensure that the appropriate number of users access the modules and functions for which the customer paid. The real-time, dynamic nature of SaaS requires new capabilities, such as real-time usage tracking, to ensure the ISV receives the proper revenue, while allowing customers to increase or reduce their services, as needed. These changes

make entitlement processes more complicated because they must support the dynamic creation, revision and deployment of multiple pricing models, based upon which features particular users access.

Because pricing is based on specific features rather than overall modules, this requires more granular real-time tracking of the number of users than the traditional license-based model. SaaS also requires complex entitlement models because vendors often lock in long-term contracts (yearly or multi-year) but bill on a monthly basis.

When a cloud broker provides an entitlement service, it maintains a database of end users, the specific modules, the functions or data each is entitled to access and the links to provisioning systems to ensure that only the proper entitlements are granted. The benefits for the ISV include lower cost of operations (compared with implementing this capability in-house), more assured contract compliance and less lost revenue. For the customer, the benefits include reduced risk of non-compliance and greater flexibility in changing the amount and type of services it purchases as its needs evolve.

These services could include everything from managing user rights configuration and the updating of provisioning information, through initial provisioning and onboarding, usage monitoring and analytics, billing and subscription management. By having more accurate, real-time availability of information about users’ access rights, as well as real-time visibility into provisioning, ISVs can ensure that users’ access rights match what they have paid for.

- **Analytics Service:** The analysis of large amounts of complex data, whether to identify hidden costs or opportunities or for new product development, often requires customers to invest in expensive, proprietary systems that sit idle between peak demand periods. A cloud-based analytics solution as a service from a cloud broker could significantly reduce costs for the customer, while serving as a complementary revenue stream for the ISV.

To use such a service, a customer would copy a relatively compact, un-indexed data set to the cloud environment, anonymizing fields where privacy and compliance require it. Once in the cloud, the data is teased apart to make analysis easy and fast by creating many indexes along the various columns of the data or by dividing the analysis. Once the results are generated, the data is brought back in-house. Anonymized fields are mapped back to their original values, and the newly generated information is stored and distributed.

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## Process Map for Business Support

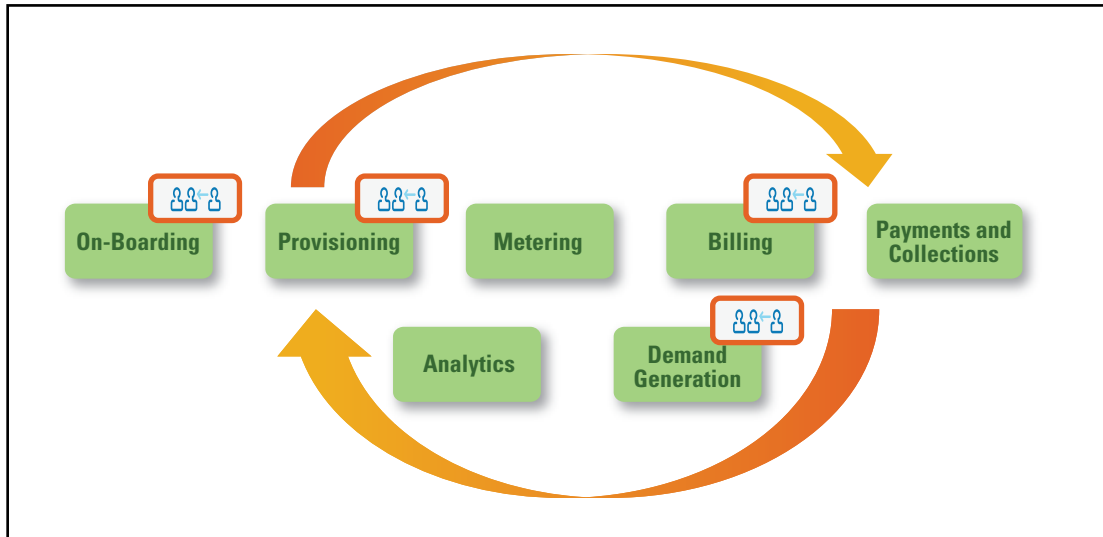


Figure 1

User companies benefit through the ability to analyze terabytes of data on demand without a steep investment in hardware and software, while ISVs benefit by generating additional revenue from existing clients.

- **Billing and Payment Service:** ISVs whose businesses grew up within the software license model may not have billing systems adapted to handle a subscription-based business that requires monthly, quarterly and annual billing, credit card transactions and automatic provisioning of services.

A cloud broker might provide a solution as a service that would receive, reconcile and manage recurring payments at any frequency and using any form of electronic payment. Its notification engine would automatically and proactively update customers, depending upon the situation. The solution would apply payments against invoices, easily reconcile and reflect any change to the original subscription and any amendments applied. It would be capable of generating reports to gain insight into transactions and overall revenue operations, as well as encrypt all sensitive customer data to ensure regulatory compliance.

For the ISV, this would eliminate the cost and delay of purchasing and installing an expensive accounting software suite, resulting in greater and faster ROI, and allow it to offer more varied and flexible payment terms to customers.

- **Security Services:** SaaS services may require ISVs to provide a higher level of security than in previous provisioning models. It may also present more complicated governance issues than a traditional deployment as the scope expands beyond the enterprises' own boundaries.

A cloud-based security solution would protect the servers providing the SaaS solution, ensure proper identity and access management and provide protection against unseen threats, such as malware and spyware, as well as rootkit protection. The benefits for the ISV include cost-effective compliance with the user company's security requirements at a lower cost. User companies would benefit from more consistent levels of performance and security.

- **Context:** This service helps ISVs provision the amount and type of information an end-user is authorized to access, as well as the types of application functionality to which they are entitled. These parameters may vary with the user's position in the organization, as well as their involvement in specific business processes and the device they are using. For example, a broker can tell the ISV if a CIO rather than a system administrator is accessing a particular service. Armed with that information, or

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context, the SaaS service can provide the data or capabilities appropriate to the CIO.

By also providing information about the user's interests and affiliations from social media sites such as LinkedIn, Facebook and Twitter, this service can help ISVs better target their offerings and promotions to members of particular online communities. This enhanced targeting includes managing:

- Social networking campaigns
- Online ads and ad words
- E-mail campaigns
- Trials and demos

This contextual information can also help ISVs provide tailored access, pricing or usage terms for employees within the end-user company's business partners that need only sporadic, very

specific or time-limited access to the SaaS offering. It also allows the ISV to present the application in the form best-suited to devices other than PCs, such as smartphones, tablet computers or other mobile devices with memory, display, bandwidth, security or other constraints.

All of these factors make up the context within which the applications, and the data associated with them, are provided to a specific user at various times. A

context solution as a service would apply semantic principles to properly tailor the information a user receives and the functions and workflows they may access to the context of their current role, location and access device. To replicate, scale and integrate interaction patterns for different common user types, the solution would be based on a context delivery architecture (CoDA). Such contextualized enrichment may be applicable across various cloud and online applications.

The benefits of such a context service include improved data security and access control for the ISV, as well as increased ease of use, higher user adoption rates and increased productivity for users. Such a service should be flexible and scalable, with reusable components and out-of-the-box adapters for most existing SaaS applications. It would also require little to no

development of custom code to modify it to the customer's needs.

The platform would have extensible connectivity and XML support to leverage virtually any Web service API. It would also include a scheduler for integration jobs and handle semantic reconciliation, such as between different data formats used by different cloud service providers. Such an integration engine could be embedded into the customer's SaaS offering so that the customer does not need to know the integration is driven by the engine.

The benefits for users include reduced cost of ownership, fully automated self-service, improved data conversion and a common platform for all integrations, as well as easier and faster customer deployment and a faster return on ownership. ISVs would benefit through links between their SaaS provisioning systems and their legacy accounting, billing and financial systems.

### Moving Forward

The move from license-based software purchases to SaaS will only grow, driven by the lower cost and increased flexibility it provides customers. Market researcher IDC predicts that SaaS will grow at more than five times the projected rate of growth for traditional IT products.<sup>2</sup> However, tapping this market will require transformational change for ISVs that have become accustomed to the high profit margins of traditional software licenses and maintenance fees. ISVs need to take a holistic view of the change required, taking into account everything from their development processes, to budgeting, customer support and internal IT capabilities, as well as their partner relationships.

A great potential exists for ISVs to provide complete SaaS services based on new business processes, integrated Web services and robust infrastructure support. In this way, an ISV can transform into a utility provider, enabling continuous recurring revenue growth. The next two to three years are a key timeframe in which to develop this non-linear business model.

Well-qualified cloud brokers can ease the move to a profitable SaaS strategy with everything from strategic business consulting, to specific cloud-based services and tools. By using a broker-leveraged model, an ISV can drive faster revenue growth, while maintaining margins, respond to market demand more quickly and optimize their feature development.

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## Footnotes

- <sup>1</sup> Charles Goldenberg, "The Business Implications of SaaS," Cognizant Business Consulting, June 2011.
- <sup>2</sup> "Worldwide and Regional Public IT Cloud Services 2010-2014 Forecast," International Data Corp., June 2010, [www.idc.com/getdoc.jsp?containerId=prUS22393210](http://www.idc.com/getdoc.jsp?containerId=prUS22393210)

## About the Author

*Dharmesh Mistry manages Cognizant's ISV practice, which provides product engineering and IT services to the software industry. He has directed multiple SaaS initiatives and brought many of them to market jointly with clients. He has worked in the software industry for the past 20 years at companies such as Oracle, Netscape and VeriSign. He is a graduate of Cornell University. Dharmesh can be reached at [Dharmesh.Mistry@cognizant.com](mailto:Dharmesh.Mistry@cognizant.com).*

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## About Cognizant

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### World Headquarters

500 Frank W. Burr Blvd.  
Teaneck, NJ 07666 USA  
Phone: +1 201 801 0233  
Fax: +1 201 801 0243  
Toll Free: +1 888 937 3277  
Email: [inquiry@cognizant.com](mailto:inquiry@cognizant.com)

### European Headquarters

Haymarket House  
28-29 Haymarket  
London SW1Y 4SP UK  
Phone: +44 (0) 20 7321 4888  
Fax: +44 (0) 20 7321 4890  
Email: [infouk@cognizant.com](mailto:infouk@cognizant.com)

### India Operations Headquarters

#5/535, Old Mahabalipuram Road  
Okkiyam Pettai, Thoraipakkam  
Chennai, 600 096 India  
Phone: +91 (0) 44 4209 6000  
Fax: +91 (0) 44 4209 6060  
Email: [inquiryindia@cognizant.com](mailto:inquiryindia@cognizant.com)