

*The Transition to SaaS:*  
**Accelerating ISV Success on Windows Azure**

A research report prepared by:



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### About this Report

This report is based on independent research developed and conducted by Saugatuck Technology Inc., who is solely responsible for the analysis, conclusions and recommendations presented in this report. The publication of this report was funded by Wipro Technologies.

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### About Saugatuck Technology

Saugatuck Technology, Inc., provides subscription research and management consulting services focused on the key market trends and disruptive technologies driving change in enterprise IT, including Software-as-a-Service (SaaS), Cloud Infrastructure, Social Computing, Mobility and Advanced Analytics, among others. Founded in 1999, Saugatuck is headquartered in Westport, CT, with offices in Falmouth, MA, Santa Clara, CA and in Frankfurt, Germany. For more information, please visit [www.saugatucktechnology.com](http://www.saugatucktechnology.com) or call +1.203.454.3900.



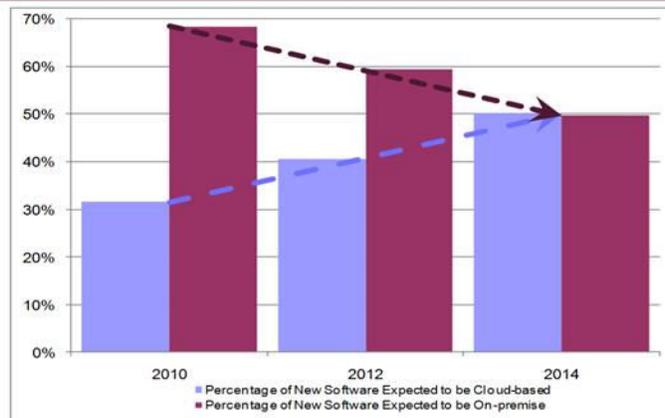
**INTRODUCTION: ACCELERATING ISV SUCCESS ON WINDOWS AZURE**

There was a time, very recently, when ISVs could stand on the sideline and wait to see how the game in the Cloud would play out. Now, however, the time for watching is over. Any business application of any complexity and criticality can and should be considered for SaaS, and ISVs that still hesitate to develop and provide SaaS versions of their business software are about to be left behind. The challenge for software vendors is no longer about *when* to include or even shift entirely to SaaS and other Cloud-based solutions. The time is now. *The challenge is how to make that happen.*

Survey research from Saugatuck Technology shows that 65 percent or more of all NEW business application decisions in the enterprise will be Cloud-based or Hybrid by YE2014 (up from 20 percent in 2009). All customer segments are impacted (See Figure 1 below).

**Figure 1: Enterprise Spend Moves to Cloud-based SaaS**

By YE 2014, 50 percent or more of NEW enterprise IT spend will be Cloud-based or Hybrid.  
 By YE 2014, 65 percent or more of NEW enterprise IT workloads will be Cloud-based or Hybrid.  
 By YE 2014, 25 percent or more of TOTAL enterprise IT workloads will be Cloud-based or Hybrid.



Source: Saugatuck Technology Inc.

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Customer demand for SaaS solutions continues to evolve as the Cloud-on premises hybrid architecture begins to dominate and will be the preferred architecture by 2014. SaaS will remain the dominant Cloud delivery model for new solutions through 2014, as enterprises of all shapes and sizes transition to a new way of managing their businesses and their increasingly hybrid application portfolios.

**WHAT DOES THIS MEAN FOR THE ISV?**

The combination of user demand and solution adoption growth, and the strong relative growth of SaaS as a business versus traditional software models, should indicate to software vendors that *now is the time to transition to SaaS*. To take advantage of this opportunity, and to counter competitive threats, software vendors must find platform partners that can enable cost-effective architecture change and consistent development paths, provide a full spectrum of technological support, and open doors to an ecosystem of complementary partners.



Entire Master Brand ecosystems are now in migration. Investments made by traditional Master Brands such as IBM, Microsoft, and Oracle have already begun to bear fruit. Joining them are emerging Master Brands such as Google, Salesforce, and Amazon. These Master Brands and their ISVs are moving aggressively into SaaS, using Platform as a Service (PaaS) as a leverage point to accelerate the migration process. On-premises software vendors planning their Cloud transition must carefully select partners who not only have a viable platform offering, but also a well-conceived program of support to accelerate success in this major transition.

Master Brands that lead markets such as Amazon, Google, IBM, Microsoft, Oracle, and Salesforce.com have emerged from the Cloud with platforms, partners, and programs for transitioning software vendors. However, not all are, at least to date, considered equal in their focus or capabilities and scope of capabilities, especially when it comes to their abilities to support software vendors through their transitional challenges.

Saugatuck has studied the Windows Azure platform in depth over the past 24 months, has been briefed by Microsoft extensively and has interviewed ISVs and global systems integrators (SIs) that have migrated or built nearly 150 SaaS solutions on the Windows Azure platform. Based on this research, Saugatuck has found that the Windows Azure platform provides migrating ISVs with a highly-productive, robust and cost-effective platform for enabling efficiency, effectiveness, and innovation in delivering SaaS solutions:

- *Windows Azure delivers efficiency* – ISVs we have talked to at length have consistently praised Windows Azure as a cost-effective platform for running workloads, for managing data and for driving hybrid business workflow.
- *Windows Azure delivers effectiveness* – In in-depth interviews, SIs and ISVs describe Windows Azure as an ideal platform for .NET 3.5 (and up)-based solutions and workloads, including high performance computing (HPC) solutions with complex algorithms, solutions requiring high bandwidth, high-volume storage and supporting a very large numbers of users, networked to on-premises .NET applications.
- *Windows Azure delivers innovation* – In particular, ISVs consider Windows Azure to be a creative platform for new business capabilities involving, for example, digital content, social networking, or on-demand media that can network with on-premises solutions and that enrich the business solutions portfolio by leveraging what the Cloud does best and what works best in the on-premises data center.

### WINDOWS AZURE DESIGN CONSTRAINTS

However, Saugatuck has also learned that there are significant challenges in getting up to speed on Windows Azure as a platform and in learning how to work around what can only be described as design constraints. For example:

- Despite considerable attention to achieving certifications, Windows Azure still lacks FISMA, GLBI, HIPAA, PCI, and SSAE16. That means, for instance, that SaaS solutions that include personal information cannot transact that data on Windows Azure or store that data on SQL Azure. Similarly, the other missing certifications may require design workarounds.



- Scalability on Windows Azure is not automated, and manual configuration processes required, although partner solutions can be effective ways to remedy this constraint.
- Development and testing is not yet supported on the Windows Azure platform itself, though the Azure SDK and Visual Studio provide development and simulation capability.
- Deployment of packages and VM roles from on-premises development is still a complex challenge, despite improvements in Azure Development Services Portal.
- Multi-tenancy is not supported natively on the platform, as Microsoft has invested in virtualization approaches to manage multiple instances of customers.
- Lack of performance transparency for managing solutions means utilizing partner utilities or building one to access the Windows Azure APIs in order to monitor performance.
- Lack of ongoing access to usage metering for billing or analysis means using a partner billing solution or building one from scratch.

However, despite these design constraints, Saugatuck believes Windows Azure remains a viable platform to accelerate an ISV into the world of SaaS. The key to SaaS success on Windows Azure is *understanding*, as we said at the outset, *how to make that happen*.

### WHAT WORKS ON WINDOWS AZURE?

Our in-depth interviews with ISVs and SIs that have had success have indicated that there are three things to consider when transitioning to SaaS on Azure:

1. Even the most powerful platform has design constraints, and Windows Azure is no exception. It is critical to understand what those design constraints are and whether there are available solutions, APIs or workarounds that can be implemented.
2. Windows Azure is a moving target of functionality. The progress Microsoft has made in enhancing the platform over the past 24 months continues at a fairly rapid pace. Therefore, it is important to understand the technical direction that the Windows Azure platform will take and continue to take as it evolves further. Design constraints are being alleviated and remedied on an ongoing basis, removing the need for temporary solutions and workarounds, but this requires access to current information and an understanding of its full implications.
3. Our discussions with those ISVs that have migrated or built solutions for Windows Azure indicate, while they have high praise for the high productivity, robustness and cost-effectiveness of Windows Azure, significant investment in more than a few cases – and skillful partnering with an SI in others – was necessary for the successes they have achieved. Those who chose to “go it alone” experienced many pitfalls and false steps along the way, and though they did arrive at their destination, their investment was considerable. Saugatuck recommends considering the partnering option.



System integrators, especially Microsoft partner SIs, can help avoid missteps along the way, assist in cost-effective tradeoffs and workarounds, and often can bring their experience and intellectual property, e.g., Windows Azure utilities, into the mix. Those we talked to who used Windows Azure SI partners had a much easier time of it and incurred less expense, while implementing a solution and a solution roadmap that took advantage of the evolving Windows Azure platform and its ongoing functional enhancements.

### COMPANY P LEVERAGES WINDOWS AZURE CLOUD

Company P is a leading supplier of software that optimizes process manufacturing and supply chain operations. For several years, its ChemProcess solution has been a leading process modeling tool for design, optimization, and performance monitoring for the chemical, minerals, and power industries. ChemProcess is a core element of Company P's PRO Engineering applications.

**Hybrid Model.** We spoke with a senior manager in product management whose mission was to update the ChemProcess on-premises software solution with a new front end and UI, as well as implement a Windows Azure-based Cloud solution using high-performance computing and parallel processing to render and optimize chemical-process design models. Company P chose Windows Azure for both new features of its major ChemProcess solution renovation project for two reasons:

1. Mobility - ChemProcess would provide accessibility from anywhere via an Internet client, whether at a customer site, in a conference room, from home, or on the road; and
2. Software license constraints – Company P could not have more than one instance of the simulation engine running on the desktop, and so chose to make use of the VM role, technology on the cutting edge of Windows Azure.

These Windows Azure processes would network through the Internet back to the on-premises installation of the ChemProcess software in a hybrid model, taking advantage of what the Microsoft Windows Azure Cloud could do best to leverage Company P's well-established, market-leading software package.

**System Integrator Value.** Company P chose to work with Wipro Technologies, a leading Global System Integrator based in Bangalore, India that has invested significantly in the Windows Azure platform. As a Microsoft partner, Wipro has access to the latest in Windows Azure technology and current information on the Windows Azure platform roadmap. Wipro was instrumental in helping Company P architect an innovative solution, utilizing Windows Azure for the new front end and user interface and for an algorithmically-complex workload, the model simulation engine, to enrich an existing on-premises solution and work around software licensing limitations. Despite working under significant constraints and under pressing product release deadlines, Wipro was able to enable the new ChemProcess solution in less than four months.

### NEW COMPETENCIES

In addition to the solutions ISVs must implement or migrate to Windows Azure, most on-premises ISVs have no experience with either the customer-facing or the operational systems of a SaaS provider. This is an entirely new set of competencies that ISVs moving to SaaS must acquire and improve to be competitive. Saugatuck has taken particular note in its research of the importance of partnering



well to outsource, for instance, technology services, hosting or operational support, systems integration and customization, and billing and payments, but there are many other ways in which partnering can make a difference, including operational systems, both inward-facing, such as systems for marketing and sales compensation, and outward-facing systems, such as for call center support. In fact, successful partnering and the focusing of internal resources on improving operational efficiencies are two hallmarks of successful SaaS companies. Moreover, the explosive growth of this market makes finding the experience and expertise to develop and manage these capabilities a very high priority, if an ISV is to make the transition to SaaS a successful one.

### **10 KEY SAUGATUCK RESEARCH FINDINGS REGARDING ISVs, WINDOWS AZURE AND THE CLOUD**

1. Transformations are already underway, and accelerating, that will impact ISV businesses and their technology platforms, and while it is not too late to enter the Cloud market and claim market share, it is essential that ISVs make no false steps.
2. Innovate and renovate; don't demolish to rebuild. There are three ways that a system integrator (SI) partner can help an ISV in this transition to the Windows Azure Cloud:
  - a. "better, faster, cheaper" efficiencies
  - b. flexible and adaptive architectures for effective longer-term value
  - c. innovative Cloud-aware solutions
3. ISVs need an SI partner who can help them to navigate the tricky currents of an evolving Windows Azure platform and take maximum advantage of the prevailing winds in developing enduring solutions for an evolving platform.
4. ISVs should choose a Windows Azure SI partner that can provide them with the information and the access to solutions they will need.
5. ISVs should choose a Windows Azure SI partner that is flexible and can work with them in whatever way works best for their business needs.
6. ISVs should choose a Windows Azure SI partner with extensive experience in Cloud solutions and the Windows Azure platform that will guide them to the most effective technology choices.
7. The best Windows Azure SI partner knows which way the wind blows and how to set sail to leverage the way Windows Azure works today and will work tomorrow.
8. The best Windows Azure SI partner can help an ISV make the architectural decisions, tradeoffs and designs that will align best with their Cloud solution strategy.
9. The best Windows Azure SI partner can help an ISV simplify technology choices and design for the longer term taking continual advantage of the technology state of the art.
10. The best Windows Azure SI partner can help an ISV create Cloud solutions that leverage their current technology portfolio and also take maximum advantage of the Windows Azure Cloud.



### CONCLUSION

As we noted at the beginning of this paper, ISVs today now have only a two-year window of opportunity before a majority of software buyer demand shifts to Cloud-based solutions. Given that starting from scratch means a two- to three-year migration for most ISVs to SaaS/Cloud-based business models, there is a critical need to accelerate the process and make use of the Windows Azure platform and the expertise and experience of a proven SI that is a Microsoft partner on Azure.

To reiterate the key reasons for this:

1. While even the most powerful and productive platform has built-in design constraints, due to implementation tradeoffs, and Windows Azure is no exception, there are effective workarounds and solutions to them. Some of them will only be temporary, as the Windows Azure platform is evolving rapidly.
2. Because Windows Azure is a moving target of functionality and because the progress Microsoft has made in enhancing the platform over the past 24 months continues at a fairly rapid pace, it is important to understand the technical direction that the Windows Azure platform will take, and continue to take, as it evolves further – and what tradeoffs make sense in the short term.
3. Finally, our discussions with those ISVs that have migrated or built solutions for Windows Azure indicate, while they have high praise for the high productivity, robustness and cost-effectiveness of Windows Azure, significant investment in more than a few cases was necessary for the successes they have achieved – or skillful partnering with an SI, such as Wipro, as in the Company P case study. Moreover, the right SI partner can not only accelerate the process of implementing an ISV solution on Windows Azure, but also implement rapidly the customer-facing and operational systems necessary to running a successful SaaS business.



## TRANSITION TO SAAS - SPONSOR PERSPECTIVE

ISVs looking at transitioning to SaaS can either choose to offer existing on-premise applications ported to SaaS or build a completely new solution for SaaS. Either way, it is a huge learning curve, especially those ISVs not in the service operations business. Some capabilities and architectural approaches required for a SaaS solution are not necessary for traditional on-premise software. Moreover, ISVs do not have the luxury of time to gain the necessary skill sets for implementing SaaS-based solutions. Wipro believes that ISVs should consider partnering with an SI with the necessary skill sets and experience to accelerate this process.

In order to enable an existing application to be offered in a SaaS delivery model, certain service-delivery features like Subscription Management, Entitlement Management, etc., are required, but need not be implemented within the application. The Wipro SaaSefy platform deployed on Azure provides these capabilities in an easy-to-use, configurable manner. An ISV application migrated to Azure would only need to be integrated with the SaaSefy adapter in a non-intrusive manner to realize these benefits. The Wipro SaaSefy platform has been especially developed to support different kinds of applications and workloads, including web applications, mobile applications, client-server applications, batch applications, and more.

While SaaS as a delivery model is extremely beneficial for ISVs, the operational expenses for SaaS must be managed to a minimum in order to maximize the financial benefits. Multi-tenancy is a crucial feature for keeping operational costs low for the SaaS application. However, enabling multi-tenancy on Azure can be challenging due to the lack of platform-level support for building multi-tenant solutions. The Wipro SaaSefy SDK provides a multi-tenancy framework with all the necessary building blocks for building a fully-fledged multi-tenant solution that addresses all the necessary isolations. This framework can also be used to convert an existing single-tenant application into a multi-tenant SaaS solution with only minimal re-engineering effort.

Wipro has leveraged its rich experience of running application operations support for multiple customers to create an operations support infrastructure that is specifically customized for SaaS operations management adhering to the ITIL processes. The Wipro SaaSefy platform deployed on Azure platform integrates with this SaaS operations infrastructure to provide comprehensive end-to-end service delivery and operations capabilities. Wipro offers this platform in a pay-per-use model for ISVs to easily enable their applications to operate in a SaaS delivery model with lower upfront investments.

### About Wipro Technologies

Wipro Technologies, the global IT business of Wipro Limited (NYSE:WIT) is a leading Information Technology, Consulting and Outsourcing company, that delivers solutions to enable its clients to do business better. Wipro Technologies delivers winning business outcomes through its deep industry experience and a 360 degree view of “Business through Technology” – helping clients create successful and adaptive businesses. A company recognized globally for its comprehensive portfolio of services, a practitioner’s approach to delivering innovation and an organization wide commitment to sustainability, Wipro Technologies has over 130,000 employees and clients across 54 countries.

For more information please contact Sawan Deswal, Sr. Practice Manager – Cloud Computing Services & Solutions -Wipro at [sawan.deswal@wipro.com](mailto:sawan.deswal@wipro.com). To learn more about Wipro’s complete portfolio of SaaS and Cloud solutions please visit: <http://www.wipro.com/industries/computer-software-solutions/wipro-comprehensive-cloud-services-for-isvs.aspx>





## SAUGATUCK OFFERINGS AND SERVICES

Saugatuck Technology provides subscription research / advisory and consulting services to senior business and IT executives, technology and software vendors, business / IT services providers, and investors.

Our Mission is to help our clients make better business decisions and create new business value through trusted and objective insights into the key market trends and emerging technologies driving real change.

Over the last few years, this has included a major focus on Software-as-a-Service (SaaS), Cloud Infrastructure, and Social Computing, among other key trends.

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- Subscription research / advisory services that provide independent / unbiased analysis, insights and guidance into the most important emerging technologies driving change in business computing.
- We are experts in *Cloud Business* and *Cloud IT*, among other key market trends / technologies - with a balanced view that is valued by both providers and consumers of technology-enabled products / services.

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- Cloud Transition / Migration and Mgmt Best Practices

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