



A Whitepaper for Software Developers

Accelerating the Move to SaaS and Minimizing the Risks: *Crossing the Chasm to the Cloud*

An Independent analysis published on behalf of SoftServe.



Executive Summary

Organizations of all sizes across nearly every industry are putting aside their legacy, on-premise applications in favor of a new generation of Web-based, on-demand, Software-as-a-Service (SaaS) alternatives.

This escalating trend is attracting a new breed of software vendors and forcing established independent software vendors (ISVs), as well as in-house software developers, to re-think how they design, develop and deliver business applications.

Intensifying business challenges and a changing workplace are driving corporate executives and end users to seek more flexible and cost-effective software alternatives to the costly and cumbersome software products of the past.

Traditional business applications were designed for highly centralized work environments and entailed significant customization to meet an organizations specific needs. Today's business climate requires easier to use, yet equally powerful applications which can be deployed more rapidly so they can generate a quicker time-to-value.

Achieving these objectives is not easy. In fact, it requires highly specialized software development skills and experience which few organizations possess in-house. As a consequence, successful organizations rely on third-party developers proven methodologies and tools.

This whitepaper will examine how this new generation of SaaS-based applications differ from traditional on-premise software products, and how specialized software development firms, such as SoftServe, can help organizations achieve their business objectives.

Market Trends Driving Demand for SaaS

THINKstrategies believes there are four key macro-market trends driving companies of all sizes to adopt SaaS solutions. These market trends include,

- **Changing economic conditions** – The current financial crisis is forcing decision-makers to re-evaluate their capital investments and refocus their limited resources on their core competencies.
- **Changing competitive forces** – Globalization and eCommerce have opened new market opportunities, but also lowered the barriers to entry in nearly every industry, undercutting customer loyalty.
- **Changing workplace requirements** – The workplace is also being redefined by more dispersed and tech-savvy workers who are more mobile and adept at leveraging technology to perform their day-to-day jobs.
- **Changing technology requirements** – Broadband networks and mobile technology are enabling employees to work anywhere. While they need greater access to information to perform their jobs, new levels of security as well as reliability and performance are required.

Traditional, legacy on-premise applications and systems were not designed to respond to these challenges. Instead, they were architected with a highly centralized organization in mind. They have also proven to be too expensive and labor-intensive to acquire, deploy and maintain to meet organizations' changing needs, especially in a highly volatile economic environment.

As a consequence, many enterprise on-premise applications have failed to produce the return on investment (ROI) that organizations expected, and have required a higher total cost of ownership (TCO) to keep them up and running. Under-utilization has compounded the problem and intensified the desire among corporate executives to seek a more cost-effective alternative.

The success of 'on-demand' services in the consumer world has created a new set of expectations among corporate executives and end-users for how business applications should look and operate. THINKstrategies has seen a steady increase in customer interest and adoption of on-demand SaaS solutions. In October 2008, we conducted a worldwide survey in conjunction with Cutter Consortium which found 63% of the companies surveyed had adopted a SaaS solution, nearly double the percentage in 2007!

Our survey also found over 90% of those organizations already using a SaaS solution were satisfied with the quality of the solution, planned to expand their use of SaaS and would recommend a SaaS solution to their peers. Our early research has been confirmed by a more recent report by Gartner which found that 95% of its survey respondents expected to maintain or grow their use SaaS.¹

As a result of these trends, IDC forecasts the SaaS market will experience a 25.3% compound annual growth rate (CAGR) and \$40.5 billion by 2014.²

¹ "Gartner: SaaS Adoption on the Rise", NetworkWorld, May 5, 2010.

<http://www.networkworld.com/news/2010/050610-gartner-saas-adoption-on-the.html>.

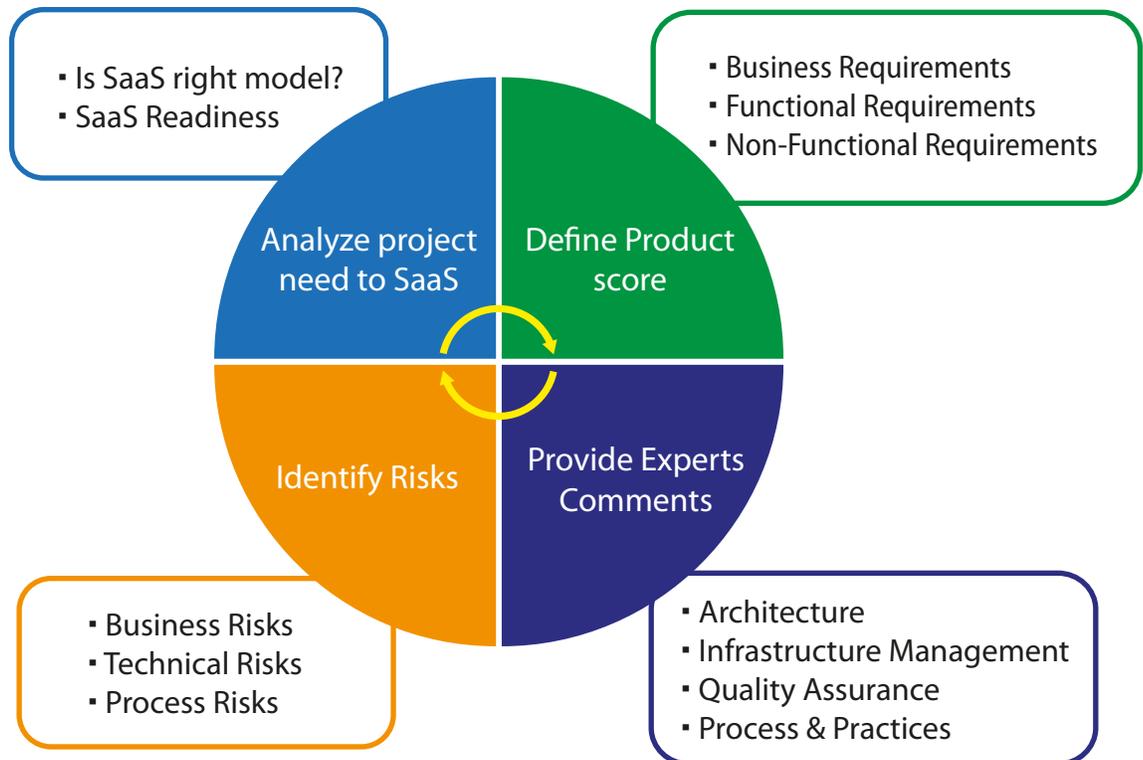
² "Worldwide Software as a Service 2010–2014 Forecast: Software Will Never Be the Same", IDC June 2010, Doc # 223628.

The Unique Development & Delivery Challenges of SaaS

The growing popularity of SaaS solutions is attracting a widening array of providers, ranging from start-ups to established players. This proliferation of players is creating a 'cloud-rush' affect which makes it particularly difficult for providers to differentiate themselves, as well as corporate developers to keep pace with the latest industry best practices.

ISVs and corporate developers must clearly evaluate their business requirements and fully understand the demands of a SaaS, or 'cloud computing', solutions. These requirements are illustrated in Figure 1.

Figure 1
Corporate Considerations When Evaluating SaaS/Cloud Solutions



Source: SoftServe

SaaS poses a number of unique challenges compared to traditional software development and deployment. These include,

- Multi-tenancy and hosting
- Performance and scalability
- Security and compliance
- Integration with legacy elements
- Continuous enhancements and updates
- Customer support

SaaS providers and in-house developers alike must seriously consider the following dynamics in order to address these challenges:

- Product architecture
- Process management
- Quality assurance and control
- Infrastructure management

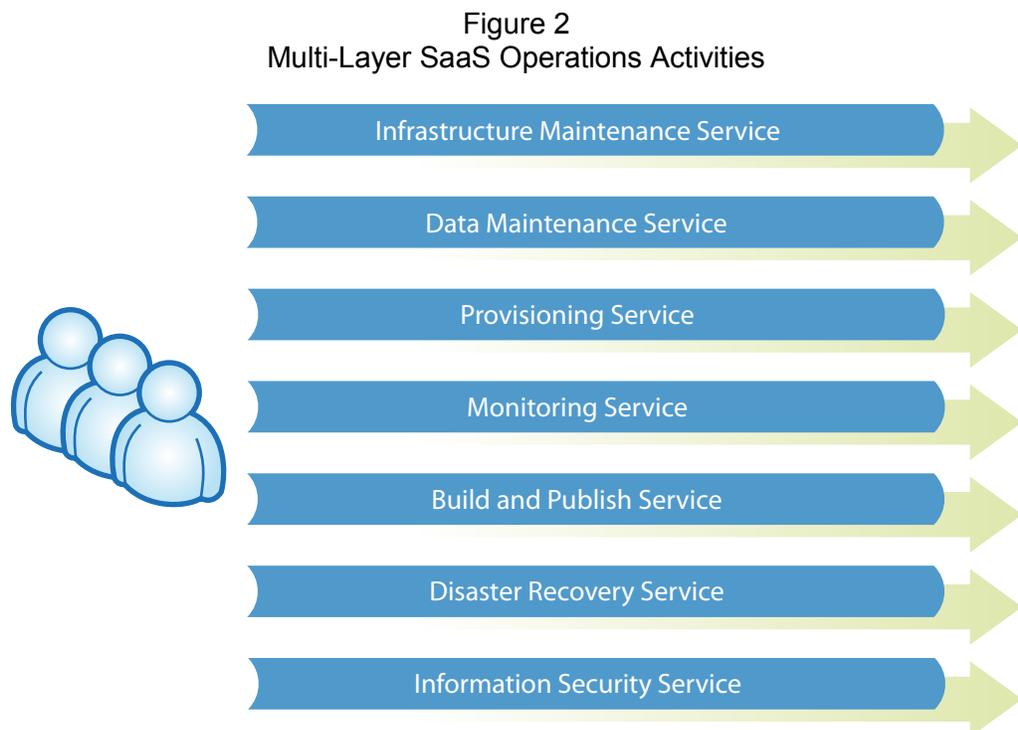
Designing an effective SaaS product architecture entails configuration management, security, database solutions, performance optimization, scalability, user interface and integration.

Process management must take into account the agile development techniques which are pivotal to the success of a SaaS solution because of the demands for continuous enhancements and updates. This means that the product development team must adopt the latest software development lifecycle (SDLC) best practices based on rational unified process (RUP), SCRUM, and ITIL v3 industry standards.

Quality assurance and control requires a comprehensive test strategy, design, schedule and QA team structure.

The service delivery requirements associated with SaaS necessitates a strong infrastructure management plan that includes Computerized Maintenance Management System (CMMS) tools, environment management, a disaster recovery plan, uptime and security monitoring capabilities, and ongoing data maintenance.

Figure 2 illustrates the multi-layered requirements associated with SaaS operations.



Source: SoftServe

Addressing all these requirements is difficult for ISVs and in-house developers alike. Both lack the skills and experience in all of these areas. And, because of the time-to-market pressures associated with rolling out SaaS solutions, it makes more sense to leverage proven third-parties than build these competencies internally.

SoftServe’s Approach to SaaS Development and Delivery

SoftServe has developed a comprehensive lifecycle of services to help ISVs and in-house developers address the unique challenges associated with SaaS development and delivery. Figure 2 illustrates SoftServe’s portfolio of services,

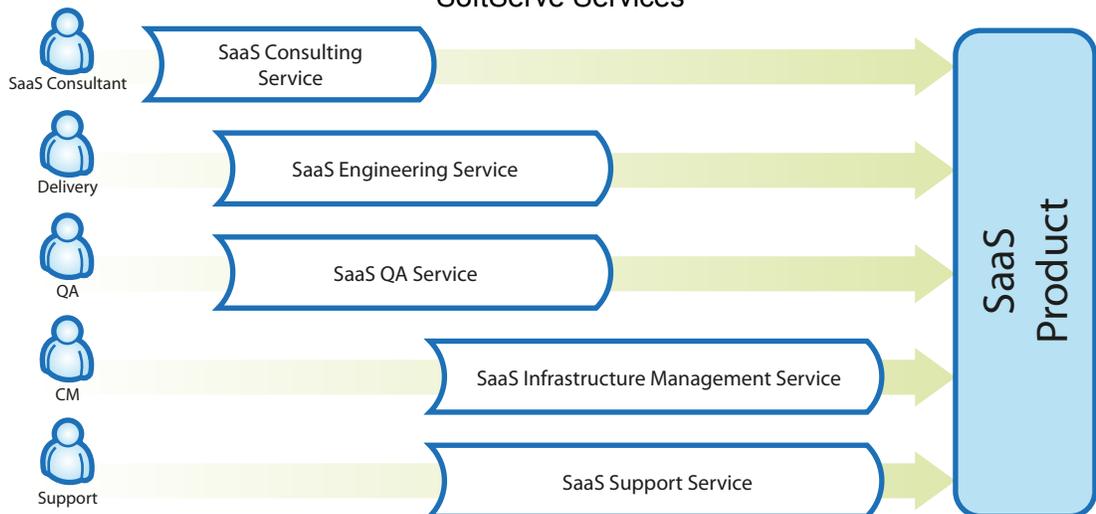
Figure 2
SoftServe SaaS Development & Delivery Portfolio



Source: SoftServe

Figure 3 shows how SoftServe’s services align with the SaaS development and delivery lifecycle.

Figure 3
SoftServe Services



Source: SoftServe

SoftServe's methodology enables the company to create a SaaS solution within a couple of months on an Open Source or Microsoft technology stack. It also permits customization based on the client's business logic. And, it also enables integration and reuse of legacy code to ensure interoperability and economics.

Summary and Conclusions

Today's economic uncertainties, escalating competitive challenges and changing workplace requirements are driving organizations of all sizes to seek more flexible and economical software applications 'on-demand'.

A new generation of SaaS-based solutions is proving to be a powerful alternative to the legacy applications of the past. They leverage the ubiquity of the Web and offer greater responsiveness to keep pace with rapidly changing business requirements.

However, building and delivering cost-effective SaaS solutions also poses serious challenges for ISVs and in-house developers alike. Successfully developing and deploying SaaS solutions entails a lifecycle of assessment, planning, design, implementation and management skills and experience which few organizations possess.

Therefore, THINKstrategies recommends that ISVs and in-house developers enlist proven third-parties to help them evaluate and address their SaaS requirements. Teaming with experienced third-parties, such as SoftServe, will mitigate the risks and accelerate the rollout of SaaS solutions.

This independent analysis was sponsored by SoftServe.

About SoftServe, Inc.

SoftServe is a leading global provider of proven high quality software development, testing and consulting services. At SoftServe, we are passionate and committed to bringing the best commercial software to market for new and established independent software vendors and software-enabled businesses. To accomplish this, we created Abiliton™, an approach that develops an assessment and certification framework making it simple to create the right standards, certifications, tools and team structure to repeatedly deliver development success for our clients. Through the years, SoftServe has partnered with hundreds of companies globally on a wide range of products and technologies, successfully completing over 2000 projects. Founded in 1993, SoftServe is headquartered in Fort Myers, Florida, with an award-winning development organization based in Ukraine and the Philippines. For more information, please visit www.softserveinc.com.

About THINKstrategies, Inc.

THINKstrategies is a strategic consulting services company formed specifically to address the unprecedented business challenges facing IT managers, solutions providers and investors today as the technology industry shifts toward a services orientation. The company's mission is to help our clients re-THINK their corporate strategies, and refocus their limited resources to achieve their business objectives. We help enterprise decision-makers with their sourcing strategies, IT solutions providers with their marketing strategies, and venture firms with their investment strategies. THINKstrategies is also the founder of the Software-as-a-Service Showplace (www.saas-showplace.com), the largest vendor-independent, online directory and information resource center with SaaS solutions in 80 application and industry categories. For more information regarding our unique services, visit www.thinkstrategies.com, or contact us at info@thinkstrategies.com.