



Technology Council of Southern California

Why SaaS is Exploding

A WHITE PAPER

By Dave Key



www.cloudstrategies.biz

The Explosion of the SaaS Market

Virtually everyone agrees the SaaS market is growing incredibly quickly; Gartner predicted cloud growth would be 21% in 2011. IDC predicts SaaS growth at 25.3% CAGR through 2014. Forester predicts SaaS will account for 26% of the package software market by 2016, while Deloitte forecasts that only 4.3% of On-Premise software spending will be replaced by SaaS.

This white paper examines the converging forces driving the acceleration of SaaS resulting in an explosion of new SaaS applications and customers that will further accelerate the SaaS market. Nearly every product category will have a SaaS alternative providing heady competition to traditional software products, and those offerings are gaining market share over their on-premise competitors.

Top factors driving SaaS adoption by software vendors:

- 1) Customers are demanding SaaS applications
- 2) Client software is moving to a consumerized, HTML5 interface
- 3) Server software is moving to the Cloud
- 4) Software vendors are joining the stampede moving to SaaS
- 5) VARs and System Integrators are getting on board the SaaS movement
- 6) Most new software venture investments are concentrated in SaaS, mobile, big data, and social – others need not apply...
- 7) Software M&A is strongest for SaaS companies driving more software companies to become SaaS companies

1. Why Customers are driving the move to SaaS

Customer demand for SaaS solutions is accelerating. SaaS solutions must be considered as an on-premise alternative when a new software is considered. We are reaching a tipping point in customer demand further accelerating the growth of SaaS products.

1.1 SaaS enables today's agile business imperatives

In these uncertain times, companies need to rapidly respond to business challenges and opportunities. The financial benefits to SaaS customers (reason 1.5) are secondary to the ability to facilitate business transformations.

IT systems must be able to respond quickly to changing business needs. New business opportunities need to be responded to in weeks, not years. Typical ERP SaaS implementation time for a mid-size company is two to four months while a large multinational rollout could take a year. This is about half the time to implement a typical on-premise ERP implementation. Companies with SaaS systems take advantage of new software capabilities immediately, rather than often being locked into dated releases that may be several years old. Most SaaS vendors add new capabilities every two to four months. SaaS vendors are able to deliver new software features to their customers much

faster than on-premise vendors. Since the upgrades happen quickly, SaaS vendors don't have customers running software that is years old.

1.2 Everyone else is doing it

In the past, SaaS was brought into companies through rogue user projects outside of the purview of IT, or through the rare bleeding-edge IT management. It was a risky decision to put a high profile project on SaaS; now installing a major new system on an on-premise system looks like an outmoded business decision for all but the largest companies (which lag in deploying new technologies across a large organization).

Today, top management is embracing the Cloud as a way to improve company agility and improve cash flow. The cloud is "cool", and its adoption demonstrates that senior management is forward thinking (even if they don't understand it that well). The federal government is even driving adoption of SaaS within its agencies -- the National Institute of Standards and Technology (NIST) is accelerating the move to Cloud Computing through its standards efforts.

Many of management's concerns about cloud reliability and security are diminishing as the message is getting through (and it is hard to argue with) that the vendors providing cloud services such as Amazon, Rackspace, Google, and IBM, provide far better security and availability than most corporate IT departments.

SaaS has become safe.

1.3 SaaS choices abound

Most software categories have SaaS alternatives with more new SaaS products being added to the customer choices every year. SaaS alternatives to on-premise software should be considered for new IT projects. These SaaS products are likely to be more modern, have richer, more consumer-like (think Facebook) interfaces, and have inherent support for mobile platforms superior to their on-premise competitors.

1.4 Your customers can ease their way into SaaS

SaaS integrations with legacy systems are becoming less costly and time consuming, and more prevalent. SaaS doesn't have to be an all or nothing proposition. A hard cutover to SaaS would be impossible for large companies, but incremental capabilities to legacy systems such as analytics, marketing software, or mobile support can be added with SaaS applications. SaaS vendors can "*land and expand*" to gradually displace legacy systems. We've seen this scenario before: minicomputer applications eroding mainframe applications, and then networked applications eroding minicomputer applications at the end of the minicomputer era.

1.5 SaaS customer economics are compelling

The hard dollar benefits of SaaS are compelling. The desire to eliminate large capital IT commitments that lock in expense levels for years is great. The cash flow benefits of the "pay as you go" approach are compelling. The ability to reduce fixed IT costs associated with maintaining on-premise applications together with the ability to reduce the large

implementation services costs are enticing – the days of spending millions for a SAP upgrade are waning.

2. Why Browser and mobile access accelerates SaaS adoption

There are major changes occurring in how users interact with and access their computers. These factors are fully supported by well designed SaaS platforms and are helping drive SaaS adoption.

A characteristic of most SaaS products is the transition of the user interface from a dated client/server style interface to a modern browser and mobile interface.

2.1 Client/Server architectures are dead - long live HTML5

April 8, 2014 == January 1, 2000

Windows XP's market share was 27.3% in April 2012. On April 8, 2014, Microsoft will drop support for Windows XP resulting in the end of updates to resolve malware issues.

The migration from Windows XP to Windows 7 or 8 will accelerate dramatically around April 2013 when CIOs realize they need to move off of Windows XP long before support is discontinued one year later.

Windows XP does not support IE9, the first Microsoft Browser with (basic) HTML5 support. More complete HTML5 support from Microsoft will come with the general release of IE10 later in 2012. IE9 is also the first Microsoft browser to support auto update pioneered by Google with Chrome, and later adopted by Firefox. This is crucial since auto updates keep browsers current and avoid the problem of the dated browsers requiring applications to support old browser versions.

Without Microsoft support [for Windows XP], you will no longer receive security updates that can help protect your PC from harmful viruses, spyware, and other malicious software that can steal your personal information.

Microsoft 2011

We *need* Windows XP to die so people will move off of their old browsers to modern browsers with HTML 5 support and move to new browsers with auto updates to keep up with the rapidly evolving HTML5 implementations. As the client base moves from Windows XP to Windows 7 or 8, those users will also migrate to a modern browser.

This migration to modern browsers will end the most common reason why CTOs cling to their old client/server architectures (and Silverlight and WPF) rather than build new projects on HTML5. There will **finally** be a high percentage of the user base running on an update-to-date browser with far fewer inconsistencies between browser versions than in the past.

2.2 Client side programmers are moving to HTML5

JavaScript is materially flawed, making it harder to write and maintain large projects. It is getting better with new frameworks making HTML5 based development much better. A

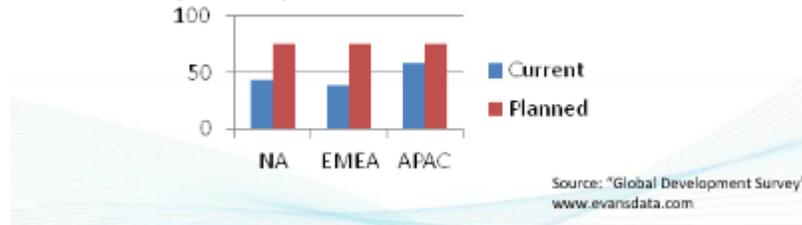
major problem has been the inconsistent browser support that is getting better with modern browsers as previously discussed.

But the war has been won (or is about to be won) by HTML5/JavaScript/CSS3. This will result in most new client apps being written for a browser further driving the adoption of SaaS. The most telling sign of this is the rapid adoption of HTML5 by the development community with over 50% of client side developers now becoming fluent in HTML5.

HTML5/JavaScript/CSS3 are not nearly as mature as WPF, Silverlight, Flash, Flex, etc.

Get over it! It is getting much better.

2012 Developer adoption:



<http://evansdata.com>

2.3 Mobile devices are SaaS consumers

Are Virtual Desktops on an iPad really a Cloud application?

It is hard to believe the iPad was first announced in 2010. Mobile devices drive SaaS adoption because legacy client/server applications don't (really) work on mobile devices. Most software companies are furiously fleshing out their mobile strategy. Increasingly, that means building HTML5 applications rather than a unique application for each mobile platform. When a mobile application, be it browser based, or an iOS or Android application are built on a web services interface, you have the foundation for a SaaS application.

2.4 The BYOD (Bring Your Own Device) revolution

The end-user has won, and the traditional IT control of the user's device is quickly ending. It is no longer just a Windows PC and a Blackberry, but now also iPhones, iPads, Android devices, and Macs. The adoption of these new platforms is another pull to move away from client/server and their VPN interfaces to a world dominated by Web Services provided by SaaS applications.

Saying "Bring Your Own Device" is an IT Trend is like saying peanut butter in school lunches is a trend.

Paul French,
"ReadWrite Enterprise"

2.5 The Consumerization of the User Experience

Business users expect modern interfaces. That means no Windows95 style, 3270 redux, or Citrix interfaces. Users expect a modern look and feel with a user experience like they experience as consumers. Client/Server interfaces are getting very dated very fast.

The Consumerization of the UI drives business applications to browser-based applications most suitable for SaaS.

**"That looks like
Windows 95"**

A doctor commenting
on a Electronic Medical
Records GUI.

3. Why Cloud computing platforms accelerate SaaS adoption

We are at the tipping point of server-side IaaS (Infrastructure as a Service) and PaaS (Platform as a Service) mature offerings that are enabling an explosion of SaaS development. The upsurge of Server-side enablers, in aggregate, will knock down many barriers to building great SaaS applications enabling more and richer SaaS applications appearing in 2013.

3.1 The Credit Card payment and free trials for IaaS services

One of the greatest innovations of Amazon's AWS (Amazon Web Services) was the ease of gaining cloud computing resources through credit card signups and free trials. Amazon courted **programmers** by removing financial barriers to creating Cloud applications – with no management financial approval required; skunkworks projects by internal development teams and cash poor entrepreneurs blossomed. Amazon followed Salesforce's *land and expand strategy* gaining a foothold into a company with a small customer investment and then expanding. AWS enabled many new SaaS applications to be built enabling Amazon to benefit from these applications' explosive growth.

Microsoft followed Amazon's lead by offering free trials and an easy purchase of computing resources. Some computing service providers looking to become IaaS/PaaS providers don't get the value of seeding their use by entrepreneurs and early adopters within an organization, but focused on their legacy customers.

3.2 PaaS Matures

While Amazon made it simple to develop applications on their cloud with IaaS services such as EC2 and S3, PaaS is maturing to raise the level of abstraction reducing the grunge work of getting an application deployed in a production setting. Major SaaS players, Salesforce and NetSuite, are offering their own platforms, Force.com and NetSuite SuiteCloud as PaaS platforms available to other SaaS companies. Salesforce also acquired Heroku as a second PaaS platform supporting Ruby on Rails. Microsoft and Google have their own internally developed PaaS platforms with Microsoft Windows Azure and Google App Engine. All of these PaaS platforms (and many more) are enabling efficient ways to develop new SaaS offerings at lower cost and with less time.

3.3 SaaS enabling technologies proliferate -- the ecosystem develops

Beyond PaaS, the cloud ecosystem is developing rapidly to accelerate the development of SaaS applications. Corent Technology enables transformation of web applications into multi-tenant SaaS, complete with operations and management capabilities that can run on a range of OSs, databases, and app servers. RightScale while not focused on the application layer, help ISVs manage their IaaS better in the areas provisioning, user authentication and authorization, metering and billing of SaaS usage, performance monitoring and exception handling, and auditing capabilities.

3.4 SaaS Integrations enable SaaS to enter the IT ecosystem

Integration with SaaS applications (or on-premise applications) has been difficult. Existing EAI tools were complex and best suited for applications behind the firewall. New tools such as Dell's Boomi greatly simplify the integration between SaaS and legacy applications. RESTful APIs are becoming prevalent often replacing the much more complex (though more powerful) SOAP protocol easing the ability to realize the potential of Mashups through simple URL based procedural integrations. Companies such as Google have abandon SOAP interfaces in favor of the simple REST architecture. Nearly 50% of Salesforce daily transactions are performed over their API.

3.5 The Cloud ecosystem matures

The crash of 2011 (Amazon's AWS outage on April 21, 2011) seemed like ancient history. We thought (hoped) those system wide failures were behind us until Microsoft's Azure failed on February 29, 2012 not being able to handle leap years! Amazon, Microsoft, and the industry has made major strides in reliability and isolating failures that caused the cascading failures we had seen. While the reliability of the infrastructure has become more mature and reliable, perhaps more importantly, SaaS developers understand the limitations and are building applications more tolerant to infrastructure failures. Maturation of the platforms and toolsets, and a better understanding of their capabilities by SaaS vendors is leading to the building of SaaS applications that are highly reliable, scalable, secure, compliant with regulatory standards, and auditable.

4. Why Software Vendors are moving to SaaS

Software vendors see their growth opportunities in SaaS. New software companies are based on SaaS, mobile, or big data -- not on-premise software. These new companies such as Salesforce, NetSuite, and Workday are the darlings of the software business by virtue of their technology, high growth, and rapid innovation . They will erode the market share of their on-premise competitors until the legacy vendors strike back with superior SaaS products. While it is hard to make the transition from an on-premise to a SaaS model, the innovative ISVs will make the transition.

“SaaS offers a whole new generation of competitors -- SaaS will become dominant”.

Leo Spiegel,
Mission Ventures

4.1 Marketing benefits drive software vendors to SaaS

In competitive markets, SaaS vendors enjoy better market positioning; customers are demanding vendors to provide cloud solutions by their IT spending.

- SaaS opens new sales opportunities to prospects with SaaS requirements
- SaaS has "buzz" and positions the company as an innovator, not a laggard
- SaaS provides the ability to expand with new channel partners looking to jump on the SaaS bandwagon
- SaaS vendors are much closer to their customers than on-premise vendors since they are an integral part of their customers' daily operation allowing the ability to continually **market to them**.

4.2 The business benefits of SaaS are compelling

- The win ratio for new business is higher for SaaS companies -- NetSuite and Salesforce both have higher close ratios than their on-premise competitors
- The sales cycles for selling SaaS is generally half that of an on-premise solution since the customer commitment is less and they are looking at shorter implantation time
- Development cycles are shorter for SaaS companies enhancing the company's ability to deliver market leading products before their on-premise competitors
- The overhead to support prior software revisions is eliminated for pure-play SaaS companies reducing development costs
- Companies only buy what they need when they need it. SaaS greatly reduces the costs of Shelfware — software license purchased up front, but never used

4.3 Big software companies now get it

- The traditional software vendors such as Microsoft, Oracle, and Sage see the SaaS imperative and are investing heavily to support SaaS products. These companies see their greatest growth coming from the cloud and are investing commensurately.
- These large companies are investing in SaaS growth with their ISV partner community by acquisition and by marketing/co-marketing spending. Some Microsoft SaaS products have a co-marketing budget of five times their on-premise products per dollar of revenue providing big opportunities for partner ISVs.

There is a huge opportunity for ISVs to leverage the Cloud investments of the software behemoths.

4.4 We finally understand how the SaaS model (should) work

While many SaaS companies have had a tough time reaching profitability and becoming cash flow positive, the elements to make a SaaS company financially solid are becoming

well understood. The promise of SaaS is to build the flywheel of a reoccurring revenue stream while keeping the upfront costs (sales) low enough to generate sufficient operating margin to pay the company's operating expenses.

We know the essential KPIs to monitor the enterprise SaaS companies viability:

- a) **Cost of Sales** as a multiple of the number of months of Contribution Margin
- b) **Weighted Attrition** expressed as the percent of lost revenue for the period
- c) **GP% of Subscription Revenue** (World Class cost of SaaS services is 10%)
- d) **Growth in Revenue under Contract**
- e) **Growth in MRR** (Monthly Reoccurring Revenue) and **Contracted Revenue**

With these metrics and their trends, you can tell a lot about the viability of the SaaS business.

There are a huge number of other important considerations including fixed costs (such as development costs) and cash flow, which can sink a company. There is less risk today in SaaS businesses because the practices required for SaaS success are much better understood.

4.5 Avoiding death is a good thing for Software Vendors

While people can debate the timing for each market, the software industry is moving to the Cloud. The speed of the transition will vary greatly depending on the specific market and size of companies served. There will be long term requirements for on-premise software just like there is still a market for mainframe software years after its peak. There will be limited activity for new client/server products by the end of the decade beyond sustaining efforts (after all, COBOL and RPG still exists).

Don't be the last one in your market running a legacy software businesses.

5. Why VARs and System Integrators are getting on board

The computer industry goes through a cycle of "*Creative Destruction*" about once a decade whereby a new paradigm replaces the old. SaaS ushers in the next wave of "Creative Destruction"; VARs and System Integrators who embrace SaaS before their peers will have a competitive advantage throughout the transition.

VARs and System Integrators can win new deals where they have unique skill sets, providing new offerings as IT organizations consolidate their service providers around a smaller set of VARs providing a broader set of SaaS offerings.

5.1 There is a huge opportunity for new business

SaaS sales are growing much more rapidly than on-premise software. SaaS implementations require fewer resources to install and almost no resources to upgrade, however the implementation, business process re-engineering, and integration efforts are similar to on-premise costs. SaaS frees IT resources from the mundane tasks to focus on those initiatives with higher business value.

Many VARs are reluctant to move to SaaS since they believe that it will reduce their revenue for a specific project and have an inferior cash flow versus an on-premise sale. They may also lose the profits from on-premise hardware they may sell in some markets. This may be true; however, if the market is being driven by customers to SaaS, the opportunity is to embrace this disruptive change. Aggressive VARS will win new SaaS business where they previously have not had a compelling offering to displace an incumbent VAR. Intransient VARs will see a continued slow decline in their business.

5.2 SaaS vendors are accelerating sales through VARS and System Integrators

While SaaS products have had a tend to be sold through the internet or direct sales, the large SaaS pure-plays such as Salesforce and NetSuite are expanding their sales through VARS much faster than their overall business. NetSuite has over 200 implementation partners and VARs. VARs and System Integrators that partner with SaaS vendors will see higher growth opportunities from these relationships. Large System Integrators such as Accenture have aggressively entered the SaaS services market having formed a strategic relationship with NetSuite. SAP Business by Demand (SaaS application) provided VARs the ability to provide services to their customer without cost to the VAR for the first several months of the implementation to incentivise new business.

Smart VARS and SIs are leveraging the software vendors incentives to ramp up their Cloud business.

5.3 SaaS helps enable Mobile and Big Data projects

VARs also have the opportunity to expand their offering into other emerging markets, particularly mobile and big data/analytics. SaaS inherently enables mobile computing with its "access anywhere" and its ability to provide a data platform for mobile applications.

Big data analysis requires periodic large amounts of computing resources which can often be performed at dramatically cheaper rates during off-peak times. SaaS initiatives can be combined with Big Data projects in the Cloud to provide more revenue opportunities for VARs and System Integrators.

5.4 SaaS provides high value, higher margin business opportunities

SaaS eliminates 90% to 100% of the upgrade efforts for companies, and often provides more "self-service" by users of the software. The VAR and System Integrator tasks that are still crucial for companies include business process implementation and re-engineering, data conversion, integration with third party systems, and training -- these are high value, higher margin businesses with more sustainable value.

5.5 Avoiding death is a good thing for VARs and System Integrators

SaaS is changing the landscape of services provided to IT organizations for VARs and SIs even more than for software vendors. As large new projects increasingly move to SaaS, revenue opportunities from on-premise deployments will decline. It is essential for the health of the VAR and System Integrator to establish a leadership position in embracing SaaS proactively rather than reactively.

VARs need to take both an "offensive and defensive position" in the Cloud. The opportunity is to embrace the cloud and specifically SaaS products completely, take business away from the laggards, and expand into new markets as part of a SaaS deployment.

For example, Microsoft VARs moving to Office 365 services are entering the VOIP market once owned by companies such as Avaya and Nortel as Microsoft offers new voice services. The Microsoft VARs expand their offerings at the expense of the incumbent PBX VARs. This expansion into the cloud by the forward thinking VARs and System Integrators will open up new markets for them through additional product offerings at the expense of their competitors with an on-premise focus that will play out in many arenas.

Moving to providing SaaS services, VARs and System Integrators have **more** offerings to sell to grow their businesses. Customers would rather have fewer vendors supporting a broader set of products -- SaaS facilitates this opportunity.

"To succeed, VARs need to take both an offensive and defensive position in the Cloud."

Renée Bergeron, VP Managed Services & Cloud Computing at Ingram Micro

6. Why Investors and Boards are driving to SaaS

Forward thinking investors and boards wanting to capitalize on the higher returns for SaaS companies are investing in new SaaS companies and moving their on-premise companies to pure SaaS or Hybrid on-premise/SaaS models. Justin Perreault of Commonwealth Capital Ventures says SaaS, along with developments in mobility and other corners of the cloud market are driving a renaissance in venture capital.

Venture Capitalists have shifted funding from on-premise software companies to SaaS, Big Data, and Mobile software. Private Equity groups are seeing major opportunities to fund the traditional on-premise software companies move to a SaaS model and reap heightened valuations. Financial firms are getting comfortable monetizing the SaaS subscription revenue stream helping SaaS companies reduce their working capital requirements.

This "sea change" in the investment community's attitude in embracing SaaS has occurred due to numerous SaaS company successes, improved understanding of

"Every generation a chaotic event occurs reordering the players and their equity value."

Jim Armstrong, Managing Director, Clearstone Venture Partners on SaaS

working SaaS business models, and the lust for high investment returns from successful SaaS companies.

6.1 Private Equity is flowing to software companies moving to SaaS

Many software equity firms are aggressively pursuing a strategy of seeking software companies with good fundamentals, making significant investments to fund the company's transition to SaaS offerings including both development expenses and providing the working capital to cover the cash flow decline during the transition. The conversion of an established on-premise software company to SaaS can result in a large increase in valuation with a moderate private equity investment.

6.2 Investors are getting comfortable with SaaS business models

Certainty of the SaaS business model has been a barrier to Software companies adopting a SaaS model. Most early SaaS companies had a negative EBITDA and consumed cash for years. The successful SaaS business model is much better understood today both from the perspective of being better able to project the long term profitability and cashflow, and understanding of the key factors in obtaining this profitability. Investors now have the historical records of successful SaaS companies enabling them to better assess the potential of new investments.

Investors that rigorously follow the crucial SaaS KPIs described in Section 4.4 (in addition to the standard software business KPIs such as the sales pipeline) will have good visibility into the health and potential of the SaaS business, and allow them to intervene if the company needs help. The improved certainty of the SaaS business model and the superior exit valuations of SaaS companies are driving many more SaaS investments.

6.3 Financial institutions are beginning to finance SaaS contracts

One of the greatest obstacles to the adoption of the SaaS model by software companies has been the inability to finance the negative cash flow resulting from the deferred receipt of subscription revenue. Banks and other financial institutions routinely financed receivables, but had not been willing to finance contract revenue streams. With a better understanding of the risks of SaaS recurring revenue streams, financial institutions are now beginning to allow companies to monetize their contractually assured subscriptions helping reduce the working capital requirements of SaaS companies.

6.4 VC software investments have moved to SaaS companies

Investments in traditional on-premise software companies have become scarce as VC investments shift to the Cloud. These investments are resulting in a new crop of SaaS companies creating new products that are now entering the market. These new offerings are greatly expanding the range of available SaaS products providing a SaaS alternative to on-premise software in nearly every segment of the software market.

7. Software M&A Activity is strongest for SaaS companies

SaaS companies' Price to Revenue ratio on exit is 2.25 times that of on-premise companies according to the Software Equity's M&A report. This understates the relative value of SaaS companies to on-premise software companies as SaaS companies are rapidly being acquired by large software companies to accelerate their transition to SaaS while traditional software companies are less likely to be acquired at any price. Even if the transition to SaaS resulted in a revenue decline of 30%, the greater P/R ratio on exit would yield a 58% greater valuation.

Conclusion: SaaS Growth is Exploding

This white paper described barriers falling and tipping points being reached that have resulted in the acceleration of SaaS products being funded and developed. Customer attitudes have changed making them comfortable with SaaS, and in fact demanding SaaS products. Customers have become open to moving their business critical functions to the cloud. End users find new power in the ability to try new SaaS software without having to go through a lengthy IT procurement process -- the barrier to "trying" new software is greatly reduced.

Larger enterprises will migrate to the cloud more slowly given their inertia and greater concerns of cloud security, reliability issues, and integration issues, but divisions or large companies are embracing SaaS. Smaller companies find it a "no-brainer" to eliminate the IT complexity of managing their own applications. As Amazon AWS evangelists frequently advise, "eliminate the undifferentiated heavy lifting" of managing your own infrastructure to focus on the core business value companies can uniquely provide.

The early SaaS innovations were achieved by startups such as Salesforce and NetSuite who did not have to worry about cannibalizing their base. While some traditional on-premise software companies wish SaaS would just "go away" according to Jim Armstrong of Clearstone Ventures, the appeal of higher company valuations and the necessity to adapt to a new computing model or be left behind is driving their movement to SaaS.

Several companies such as Intuit have moved aggressively to create SaaS products. Intuit's QuickBooks Online and Turbo Tax Online demonstrate how legacy software companies can successfully move to a hybrid on-premise and SaaS model. Large software companies including Oracle and SAP are making expensive new SaaS acquisitions to accelerate their movement to SaaS. There will also be an acceleration of traditional software companies providing SaaS offerings, further increasing the range of SaaS products and providing "big name" comfort to SaaS products.

These factors are driving the growth of the SaaS market to ever greater levels.