Recently, Lonne Jaffe, Senior Vice President of Corporate Strategy for CA Technologies sat down for a series of interviews with Rich Levin to discuss the major disruptive trends impacting IT today. Here are some of the highlights from Lonne’s interview on SaaS – Software as a Service.

Rich:
I'd like to start by talking about the SaaS market. The opportunity there is huge and growing at a rate of 28%, four times faster than the traditional software market. What’s fueling the growth of SaaS and why are so many organizations getting on board?

Lonne:
Fundamentally the “as a service” trend is about consuming information technology as a utility. For decades, the prevailing technology model for large enterprises has been to buy technology equipment - high end servers and software - and then use this to build and manage systems that deliver services to employees, customers, or partners. Within the last decade, however, the quality and reliability of the internet as a global network has made it possible to procure information technology as a utility over the internet, instead of everyone creating and managing their own systems. This is similar to why large enterprises don’t usually build and run their own power plants to get electricity. They pay a monthly fee to the power utility and they consume power over the electrical grid. Software as a Service uses a similar utility paradigm for information technology, letting a business plug into software and infrastructure delivered as a service over the internet in exchange for a metered fee. For an enterprise, this can be a very attractive alternative to having to build and manage its own IT environment. That said, information technology is more varied, nuanced and diverse than electricity, and it is a more important competitive differentiator for a business. Electricity is much more of a commodity; you care about price and reliability, but you don’t typically compete with other businesses by having higher quality electricity. Information technology is quite different. Industries as varied as retail and finance use information technology at the very core of their business and their business value proposition. IT allows them to deliver services for their customers, improve efficiency and create new offerings.

The way to think about this “as a service” stack is in three layers. The first and the highest layer is Software as a Service, or SaaS, which is really the first layer to emerge and is the farthest along in maturity. SaaS involves delivering complete end user applications over the internet, like what Salesforce.com did with customer relationship management software. The second, and middle layer, Platform as a Service (PaaS), is probably the least mature. It falls short of delivering a complete ready-to-use application, but it does provide many capabilities an enterprise user would need in order to create and run an application, including advanced functions like performance and network management and intelligent provisioning. The third, and foundational layer, is Infrastructure as a Service (IaaS), which delivers raw capabilities like computing power and storage, and some lower level functions like disaster recovery and basic security. The SaaS layer is the largest market today with the best gross margins and the highest price per seat. However, the PaaS and IaaS layers have also clearly emerged as their own multi-billion dollar segments and are growing very rapidly.
Lonne Jaffe Interview

Rich:
One of the obvious value propositions for SaaS is lower cost. The upfront costs are lower because you’re not buying hardware or licensing software. Maintenance is lower because you don’t have in-house care and feeding. But what about the long-term total cost of ownership – how do you see that playing out?

Lonne:
Information technology delivered as a service often involves pay as you go, or term-based licensing, where you pay a monthly or a yearly fee based on how much you’re using. This is different from the perpetual license model, where a company will pay an upfront amount for a license to the software which it then owns, instead of rents. In the perpetual license model, you would pay maintenance fees to get support and upgrades, but usually, these maintenance fees are lower than the rental fees you would have with the SaaS capability.

There are many situations where this pay as you go licensing model can be much more attractive than buying equipment and software upfront. If you’re a large bank trying to raise capital to meet your Basel III capital requirements, the ability to keep your cash on the balance sheet and pay for software and infrastructure over time as you consume it can be very helpful. If you’re a growing business, the SaaS pricing model allows you to start small and then scale up usage as the business becomes more successful over time. If you’re a technology vendor, consuming information technology as a service can allow you to benefit from the commoditization happening at the infrastructure and platform layer. This commoditization shows up in the form of lower pay-as-you-go prices for part of your overall offering, allowing you to focus your investments on the higher value parts, consuming the IaaS layer, which is getting cheaper every month, rather than managing the infrastructure yourself. That said, IaaS is not necessarily cheaper, especially when you factor in the cost of learning and managing a new environment and the effort of moving existing technology workloads onto a new platform.

So it’s important to factor in all of these costs when you’re evaluating the total cost of ownership of an information technology as a service initiative. Many vendors have also struggled with adapting to the new dynamics of the SaaS business model - getting comfortable with the critical SaaS metrics that you need to pay attention to, like committed monthly recurring revenue, churn, customer lifetime value, customer acquisition costs and the like. It’s absolutely essential to have a razor sharp focus on these new SaaS metrics and that’s just not in the DNA of a lot of the more traditional software vendors.

Rich:
There’s also hidden costs and other issues - integrating data and systems across multiple silos or with their existing on-premises or legacy systems; questions about who owns the data, compliance, regulatory concerns, security, limitations on customization. Are we making any progress here?

Lonne:
The difficulty with moving around large quantities of data is one of the biggest obstacles to adopting any kind of information technology as a service. The amount of data that can be transmitted over the internet and the reliability of the network connections have improved dramatically, but large pools of data still have a substantial gravity to them, and the physics of networking that makes it difficult to move these pools of data around over the public internet is likely to persist for the foreseeable future. Because of these network connectivity problems, it’s often important to have computer power located physically close to the data for a whole array of different enterprise class workloads. You need the physical proximity between the compute power and the data to get scalability, performance and other things that are essential for enterprise class systems. This can make it difficult for an enterprise to use a SaaS application that needs to access data that’s still stored on-premise at the enterprise. These factors make it a bit easier to leverage SaaS for applications that are highly compute intensive, as opposed to data intensive, or that operate somewhat autonomously from your existing on-premise systems. However, integration tooling is getting cheaper and faster and there are many data intensive workloads with lots of connectivity requirements that are running as a service today. It just requires good planning and exceptional architecture design skills, and for applications that need a lot of connectivity to other internet based services, running “as a service” can actually lessen the integration challenge.
Rich:
It sounds like a key target for SaaS is the traditional IT department, but what about the line of business? Do you see LOB going rogue because it's easy for them to provision IT services through a SaaS model rather than wait 18 months for a traditional deployment?

Lonne:
That’s right - the increased availability of SaaS has made it possible for line of business leaders to buy and use their own software, in many cases without working with their IT departments. One of the interesting side effects of this is that a surprisingly large percentage of the budgets of executives, like the Chief Marketing Officer or the Chief Legal Officer, is now being spent on software. But often the CIO is still being held responsible for the security, management and performance of these rogue software purchases, and the lack of coordination adds to the complexity of the day-to-day job of the CIO. This has created great business opportunities for vendors like CA Technologies to provide software that enables the CIO to reign in all of this activity - to manage the performance of the SaaS applications, to select ideal IaaS vendors based on price or performance or capability and quality of service, and to secure all of the applications and data that are now going outside the four walls of the enterprise.

Rich:
Beyond the traditional enterprise apps that one would associate with SaaS, there are a lot of different solutions that are coming on line in this model, such as PPM, “security as a service”, etc. Where is CA Technologies putting their focus?

Lonne:
As you might expect, the various management and security software segments are transitioning to SaaS delivery at different speeds. Some segments that are more application-like lend themselves really well to delivery as a service and are therefore moving very rapidly, just as you might expect. Others that require deeply instrumented hooks and connections into on-premise systems or the collection of massive volumes of data are moving more slowly.

We’re calibrating our investments carefully in SaaS delivery by segment, with the ultimate goal of having a suite of management and security functions delivered as a service on an integrated SaaS platform. This platform will have a consistent user interface, integrated back-end data repository, mobile access, the ability to deploy 3rd party management and security applications and advanced analytics that are only possible in an “as a service” delivery model. We’re also building SaaS versions of our market leading offerings. For example, we’ve built CA CloudMinder, delivering identity, access management and authentication as a service, and CA Clarity On Demand, which is our market leading project and portfolio management software, delivered as a service, and we’ve done a number of acquisitions in this space of companies that either primarily or entirely deliver their offerings as a service.

Rich:
One area of concern when it comes to the cloud and the “as a service” area is security, yet now we’re starting to hear people talking about security as a service. What are the issues with using the SaaS model around security and can you talk a little more about the notion of identity as the new perimeter which CA Technologies has discussed before?

Lonne:
The old model of IT security, which involved putting a wall around your data center with a front door and only letting the good guys in and locking the bad guys out, doesn’t work in a world where substantial parts of your IT infrastructure and applications reside all across the internet and are consumed as a service. There is no wall because there’s nothing to put the wall around. The new security paradigm is the idea that identity is the new perimeter, i.e. wherever your data and applications reside, they need to be locked down and secured, and you need to deploy sophisticated identity and access management to continuously evaluate who is accessing the systems and data and what they should be allowed to do with them. You also need to infuse functions like data level protection to make sure that whether the data is at
rest or in transit, it is not readable by the bad guys. To address this new world of security where identity is the new perimeter, CA Technologies built CA CloudMinder, which brings together all of the capabilities of our existing market leading on premise identity and access management products like CA SiteMinder and CA ControlMinder together with functions like federated enterprise cloud identity, that really take advantage of the SaaS model.

Rich:

*Switching gears just a little bit, I would like to get your perspective on the opportunity that SaaS offers for service providers and whether you see a role for CA Technologies partners.*

Lonne:

Partners, especially service providers are an incredibly important part of the SaaS story, and this is especially true in management and security software. Service providers need enterprise grade management and security functions to run their own businesses. But many also want to deliver management and security capabilities to their own end customers, either as a managed service, or in a SaaS model. And this is where CA Technology is really fortunate to have one of the largest and most sophisticated global service provider partner ecosystem in the world – a tremendous competitive asset for the company. And we’ve already had a lot of success working with these partners to deliver products and other solutions to their customers as a service.

Rich:

*For my last question, can you look into your crystal ball and share anything about what we might expect to see in the next several months or years from CA Technologies around SaaS.*

Lonne:

CA Technologies is going to be continuously investing in SaaS, both organically and through acquisitions. We are building on many of the acquisitions we’ve already done in delivering security as a service and with our Nimsoft-based products which deliver next generation service management and monitoring capabilities as a service. We’re also continuing to enhance the market leading capabilities that we’ve built in project and portfolio management and, security and several other areas. And you’re going to hear about more exciting announcements from us in all of those spaces. But the other thing that we’re really focused on is helping our customers and partners manage and secure their own SaaS, PaaS, and IaaS investments as those cloud management offerings become an increasingly important part of all of our customers and partners’ interests going forward.

Rich:

*I want to thank you so much Lonne for talking to us today about this new world of SaaS. To learn more about some of the solutions Lonne talked about from CA Technologies visit* [www.ca.com](http://www.ca.com)

Lonne:

Thanks for having me, Rich.