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Catalyze Your Cloud Journey by Leveraging Your Investments - Key Factors

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A B S T R A C T

In a global business environment marked by aggressive competition, challenging market conditions, demanding customers and pervasive technologies, rapidly responding to customer demands with innovative services is critical to success. In a bid to outsmart the competition, more and more organizations are adopting the on-demand Cloud model for their Customer Relationship Management Information Technology landscape.

Moving to the Cloud allows an organization to function at a lower cost and faster cycle time while enabling its technology-dependent business processes to operate more efficiently. However, when deciding whether or not they must move to the Cloud, organizations must evaluate several factors such as the best practices to handle the transition phase, whether to adopt a single instance or multiple instance strategy, the kind of data privacy a Cloud can offer as well as inter-Cloud mobility.

Infosys talks with Atul Pandey and Sachin Pandhare from Infosys' Salesforce.com practice, to find out more. Here are the excerpts of the discussion.

On-demand Vs On-premise: Value Proposition

1. What are the key factors that an organization must consider when shifting its business and IT landscape to an on-demand as opposed to an on-premise model? How would you rank these key decision-making factors on a scale of 1 to 10?

Atul: Discussions on moving to the Cloud are gathering steam in every organization. Almost every client I interacted with in the past 6 months was looking at the Cloud as a key IT option to enable and deliver new business capabilities. These discussions are no longer business conversations with SaaS product vendors, undertaken in isolation from IT, but are taking center-stage in the mainstream IT/ CIO organizations. I am aware of at least 5-6 Global 1000 clients who have signed enterprise-wide licensing agreements on Force.com this year. While there are numerous perceived benefits propelling this momentum, enabling business agility and reducing time to market seem to be the top drivers.

Having said that, it is important to look at the various levels where Cloud discussions are happening to gain better insights into these drivers. Each level of the Cloud ecosystem offers a distinct set of benefits and poses an equally distinct set of challenges. Therefore, while there is a definite momentum on discussions regarding movement to the Cloud, the decision to convert is not yet a simple one. The discussions today are happening at 4 key levels - Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Applications / Software as a Service (SaaS) and Business Process as a Service (PaaS).

Pioneered by Salesforce.com (SFDC), the Cloud journey began in the early 2000s at the SaaS level and gained momentum on the premise of a lower Total Cost of Ownership (TCO), lighter system footprint, and scalability. However, the value offered / delivered by this model was not broad enough to make a case for a significant shift to the Cloud model especially in the context of large enterprises. Nevertheless, the continued success of SFDC's flagship Sales Force Automation (SFA) suite helped lower barriers pertaining to data security and privacy (given SFDC's multi-tenant architecture).

At around the same time, a parallel journey ensued on the infrastructure side (IaaS) with Amazon's EC2 creating avenues to migrate low-key, high-volume apps (such as email), and manage and maintain them outside the organization's walls. This lowered the barrier at the other end, creating a case for moving a few select

apps outside traditional data centers.

However, the real disruption in the Cloud movement came with the advent of PaaS - thanks to SFDC when it introduced Force.com. PaaS has made it possible to create a case for true business agility with its ability to develop new capabilities across any business function using pre-build user interfaces (UIs), dashboards, workflows, and business components while leveraging the benefits of a low system footprint (IaaS). PaaS was the missing link which has now enabled organizations to ask themselves why they should be looking to build something from scratch and manage it internally when the same can be done quickly without the hassle of managing resources.

However, it must also be said that the decision to move to the Cloud is not yet straightforward. Some of the key factors that have led to the situation include:

- Lack of clarity on what to retain and what to build on Cloud - PaaS in the market place is not mature enough to transition complex and unique apps (e.g. supply chain collaboration, complex pricing engines, complex sales and marketing, engineering, manufacturing, distribution, WMS, etc.) which still form the core of the enterprise app landscape in addition to the ERP system. While AppExchange is a good start, we have miles to go before we achieve a true plug-and-play application marketplace on the Cloud
- Lack of clarity on the emerging Enterprise Architecture - data management, integration, governance, performance, security
- Cost justification - in the interim organizations must bear the cost of co-existence, unclear deployment / transition timelines

In my view, on a scale of 1-10 - where 10 is the highest factor - business agility and lead time to market will rank 9, followed by Enterprise Architecture considerations (security and performance - 8, scalability - 7) followed by cost - 6.

Sachin: Typically, an organization must look at three primary areas for fitment:

- Business demand in terms of current and future processes
- Technical requirements such as security, architecture, etc.
- Cost of adoption and sustenance

Even as organizations increasingly prefer the on-demand model to fulfill their IT needs, it's not the easiest decision to make. When considering its options, an organization needs to evaluate multiple factors, such as changing customer expectations, the need to innovate on the fly to improve customer responsiveness, advent of newer and pervasive technologies, and fierce competition in tough market conditions.

Cloud computing can enable a company's technology-dependent business processes to operate more efficiently with a faster cycle time and lower costs. Users can leverage a constant stream of innovation while being able to access data 'in the cloud' at any time, from any location, platform, or device. Further, Cloud computing enables new forms of real-time collaboration that are not feasible with traditional desktop software in a pay-as-you-go model without heavy upfront investments in application development.

Today, tough market conditions are forcing many organizations to focus on cost as an important factor while considering on-demand models. Though this may not be the case for large businesses, Salesforce.com (SFDC) offers a unique proposition that makes a compelling and sustainable case for adoption. Salesforce.com leverages the pay-as-you-go model to decrease the entry barrier significantly in terms of cost and user acceptability, which allows users to validate and evolve the solution cost effectively.

Apart from agility and cost - which have a vital bearing on the decision to move to the Cloud - quick and efficient scalability is another important consideration for businesses that have outgrown what their on-premise infrastructure can support. Organizations with fluctuating business operations can leverage the Cloud feature to facilitate easy flex up and down of the computing capacity and information systems.

Other considerations such as security encompassing data privacy and regulatory concerns were important a few years ago owing to a perceived sense of loss of transparency and control. However, many of these concerns have been addressed with today's technology innovations.

Considering all the above points, a company can prioritize and rank key decision-making factors on a scale of 1-10, where 10 is the highest in the following way: Agility (10), security (9), performance (9), scalability (8), and regulatory concerns (6). Although cost ranks lower in terms of criticality, it continues to be one of the key factors for quicker adoption.

2. As organizations move to the Cloud model, what are the key integration aspects to be considered?

Atul: Defining an appropriate integration strategy is critical when

organizations contemplate moving to the Cloud. The Cloud application landscape transcends the boundaries of the four walls, often posing challenges that require amendments to the existing integration standards defined by the internal IT. The integration strategy needs to be planned at multiple levels - master data, transaction data, reporting, and analytics.

Another factor to be considered is the type of integration needed - batch vs. real time - as this can pose significant constraints on performance and scalability. Data security is also a key factor in planning the integration as data flows from on-premise apps to Cloud-based apps with the internet as the key medium. Integration planning can become extremely complex especially when we are looking at multi-Cloud scenarios and a mix of PaaS- and SaaS-based Cloud elements. As each layer of the Cloud is oriented to be delivered as a service, adopting Service-Oriented Architecture (SOA) practices has become a key foundational element for a successful integration approach in any Cloud-based implementation. Most of the leading Cloud service providers, including SFDC, offer standardized web services and XML-based integration with Application Programming Interfaces (API) sets to enable consistent integration across multiple applications / technology platforms.

Sachin: Agility, cost, system performance and security are key considerations in adopting Cloud technology such as Salesforce.com and a nimble, standardized and cost-effective integration infrastructure is the key to success. However, a business will encounter challenges in the effective integration of security models, data models, business processes, and workflows with the rest of the IT ecosystem.

The Salesforce AppExchange platform provides consistent application architecture and a data model for in-house and partner applications, thereby facilitating seamless integration. Further, the Service-Oriented Architecture (SOA), Application Programming Interfaces (API) and open standards enable applications to communicate easily.

Since integration is driven by business processes, workflows and data exchange, agility and security have a higher weightage in the decision, followed by performance and cost.

3. How do you view scalability (up and down) and agility in enabling decisions to shift from an on-premise to an on-demand model?

Atul: Business agility and scalability are critical decision-making factors, especially in the context of the recent economic downturn which has compelled us to do more with less. Constant pressure on margins and intensifying competition have resulted in

significant reduction in the profitable product lifecycle span. This, in turn, necessitates building new capabilities across organizational functions (sales and marketing, manufacturing, R&D, logistics). This is required to introduce new products rapidly, connect with channels and customers faster, and to develop capabilities to flex up / down capacity rapidly (remember multiple automotive recalls this year) in key functions such as customer support and service.

The Cloud offers this rapid flex up / down capability as well as the ability to test new functionalities (connection of CRM and social media collaboration) rapidly without investing / waiting for hardware / other resources as in the case of on-premise models. The advent of PaaS models (such as Force.com) has significantly accelerated this driver and even helped to make IT realize the benefit of the Cloud model in rapidly delivering more capabilities for business, thereby reducing traditional business-IT gaps.

Sachin: Quick and efficient scalability is critical for businesses that have outgrown their current on-premise infrastructure which no longer supports their requirements or has become just too expensive to upgrade. The on-premise model can adversely affect businesses since it involves significant investments in cost and time.

Organizations with fluctuating business operations can leverage the Cloud to facilitate easy flex up and down of their computing capacity and information systems. Further, businesses spread across multiple geographies with diverse business units can leverage SFDC to enable users to focus on different pain areas and prioritize them during adoption. For example, while one business unit focuses on sales visibility, the other can focus on partner relationship management processes. Many large businesses have adopted this approach since it improves scalability by accommodating diverse business demands.

Best Practices, IT delivery, and the Role of a Partner

1. How are organizations looking to maximize business value when they embark on the Cloud journey and transition from a Capex to an Opex model?

Atul: Today, with the recent economic downturn, clients are increasingly looking for value before making spend commitments.

The Opex-based model coupled with most SaaS-based Cloud offerings (led by Salesforce.com's flagship products) has moved on to the next level with the advent of PaaS offerings such as Force.com. This has made it possible for organizations to think about proving value without making significant license or resource commitments upfront. As a result, there is an increase in Proof of Concept-driven (POC-driven) investment or spend planning for new initiatives especially where organizations are becoming open to adopting PaaS as part of their Cloud journey. Constant enrichment of features in PaaS (rules / workflows - Visual Process Manager (VPM), integration of chat and collaboration tools such as Chatter on Force.com) is a key enabler for customers in moving toward 'value-justified spend models' as they can try out new ideas rapidly on the Cloud without having to spend on infrastructure or system resources on premise.

Sachin: During an economic slowdown, IT budgets must be made more opex-centric. After all, businesses need to be more lean and

agile in managing costs and related expenses even as they create business value through new services, product offerings and innovation. Not needing a high initial investment, the pay-as-you-go model enables businesses to directly track the business value delivered by systems, thereby reducing overall cost and creating a direct link between business growth and IT expenditure.

On-demand services such as Salesforce.com are flexible and provide a service-based consumption model that can leverage the resource sharing and purchasing power of large-scale, multi-tenant data centers. This provides significant economic advantages to organizations and reduces strain on the business.

However, it is also useful to consider that while this model provides a higher value proposition for the future, its initial adoption is based on incremental demonstration of definitive value to business through iterative build and deployment of the solution.

2. What best practices do you see being followed as organizations transition to Cloud models? How important are user training and change management key measures?

Atul: One of the biggest challenges on the Cloud today is to identify where to begin, especially on PaaS. It is no longer a question of justifying a Cloud-based functional app such as CRM or customer

service (the continued success of Salesforce.com's Sales and now Service Cloud proves that the Cloud option is definitely in for established niche apps). However, the same is not true with PaaS, where the spread of apps and functionality is quite wide (e.g. campaign management, pricing, promotions combined with channel forecasting may be spread over hundreds of internal applications). Moreover, it is not very intuitive in determining how to slice the new solution between Cloud and on-premise. This also poses challenges in terms of articulating a business case for expanding the application footprint on the Cloud. The problem becomes further complicated when we look at multiple business units sharing the same set of apps and it becomes a challenge to converge them to a common new solution.

I can see the following approaches being adopted to address these constraints:

- Start small and convert apps with low complexity, then move towards more complex apps
- Look for an app already available on the Cloud market-place (such as AppExchange) and see if the same can be reused
- Identify self-contained apps (with low integration) and move them onto the Cloud first and then move on to ones which are more tightly coupled with other internal systems / data sources
- Move apps with low business criticality first to the Cloud before moving higher business-critical apps
- Conduct platform fit (e.g. Force.com) and move apps which can be developed out of the box on the Cloud platform and then take on apps which require more customization

In a nutshell, the trend seems to be adopting an iterative and incremental approach toward moving apps to the Cloud. Establishing a Cloud Centre of Excellence (CoE) is a recommended step to evangelize the overall strategy and approach and enable consistent adoption at every stage.

On the question of user training, the key premise of the 'Cloud as a Service' model is superior usability - hence, extensive user training and enablement is significantly reduced. This has been one of the key tenets behind the success of Salesforce.com - usability is highly intuitive and users can explore most features on their own. Having said that, there may be a need for limited training on the new system in the context of PaaS. While the need is relatively low, business change management is critical to the success of the journey toward the Cloud as there is a change in the support and service models. After all, traditional in-house IT support may be absent for new apps. Business continuity planning is another key area which needs to be addressed as part of change management as when applications move to Cloud, organizations

no longer have backup, recovery and data replication capabilities inside their walls. A key factor is the emergence of new enterprise architecture which necessitates a new governance model both at the business and IT levels.

Sachin: Adopting the Salesforce.com platform has some distinct advantages. A well-defined, user-aligned process and a phased deployment plan is a key approach to successful implementation. Some of the best practices are:

Iterative Adoption Model: It has a ready-to-use User Interface (UI)/ functionality with 'Do It Yourself' (DIY) flexibility that allows users to customize it according to their needs, thereby enabling quick adoption cycles. One of the key strategies is to leverage an iterative adoption model with a multiple mini releases incremental functionality and shorter deployment lifecycles.

Effective Change Management: Change management is a challenge since more technology is placed in the hands of business users. An effective change management strategy with proper training is critical for successful adoption. Adoption becomes easier for stakeholders when they are involved at the beginning and get an early feel of the system. Further, investments by executive sponsors and change champions in the organization and an effective communication strategy improve adoption. Identification of key process owners to manage these is important for governance and change management.

Consistent data models: SFDC adoption enables a 360-degree view of the customer. This allows multiple business functions to cross-sell, up sell and access the right information at the right time. Thus creating a consistent data strategy across the organization enables successful adoption.

While adoption may occur at different rates for different business units, the long-term strategy must be to create a consistent solution with a harmonized set of processes. This can be done by setting up a Center of Excellence to deliver the solution, leverage learning and define a roadmap for SFDC deployment.

3. How do you see the role of a System Integrator (SI) partner complementing the strength of the customer organization embarking on a Cloud journey?

Atul: SI partners have crucial and complementary roles at multiple levels as clients take to the Cloud. As I mentioned earlier, one of the key challenges our clients face while embarking on the Cloud journey is to determine where to start and how to build the right business case. At this stage, the SI partner can help by:

- Articulating the right approach
- Preparing an app road map for Cloud migration
- Making the business case

- Conducting small POCs to prove the value to support the business case

Post business case justification and initial POCs, SI partners can help identify and implement pilots and downstream implementations and roll-outs. SI partners bring in reusable methodologies, integration frameworks and connectors, and implementation best practices - including integration and data migration - which can accelerate the time to deploy while ensuring high solution quality. As PaaS is gaining momentum, SI partners also bring in pre-packaged apps (leveraging industry / domain expertise and experience from multiple clients) which may exactly fit the client's requirements. In these cases, the client can directly leverage the solution from the SI rather than build one on the Cloud. This further accelerates the time to realize benefits.

Sachin: An SI partner has a key role to play in the adoption of the Cloud journey. Infosys' experience in this domain centers around knowing the best practices of other Cloud applications,

understanding the pitfalls in implementation, aligning the implementation for high business value, as well as improving business functionalities. Further, an SI can bring a significant value-add through its extensive past experience in implementation across verticals and provide a governance model, best practices in solution build/ deployment, and a scalable CoE.

During the adoption cycle, an SI can ensure value in the following ways:

- Provide knowledge to define processes
- Plan deployment cycles across functions
- Add value to a business (quick wins) at a rapid pace with technical and product knowhow
- Leverage domain and functional area expertise and deploy models - such as Vendor Relationship Management (VRM) - to deliver value from the CRM investments through more complex CRM deployments

Single instance Vs Multiple instance: Decision-making factors

1. How are customers planning / managing the Single Vs Multiple instance strategy/ approach for their Cloud applications / Salesforce.com rollout? What are the key considerations in evaluating the two approaches?

Atul: While there is conceptual convergence on the notion that a single instance can help lower the TCO and simplify sustenance, the decision to move to a single instance is not a 'slam dunk' one. An organization must ask a number of questions, including:

- What's the level of control in terms of data and information desired?
- What's the level of common information sharing required across functions (marketing, sales, customer support, etc.)
- Are the instances separated by LOBs which operate independent of each other and have little in common with regard to business goals, processes, products, etc? In such a case, multi-instance strategy may continue.
- What's the level of process harmonization required to achieve a single instance and does it impact business flexibility (multi-locales, currencies, etc.)?

From a technical perspective, the considerations are:

- License agreements signed in each instance and what it would take to move to a single instance (if one SFDC instance is an Enterprise edition and the other an Unlimited one, the merged one may need to follow an Unlimited edition.)
- The extent of customizations in each instance what remains, what goes away in the combined instance?

Sachin: Providing a single 360-degree view of customer information with an enterprise-wide, common security model is one the key factors for choosing a single instance strategy. A single data model helps to share and leverage data across the organization and provides a stable mechanism to build an information source and mine it. On the other hand, in organizations where multiple business units operate as separate entities with different product lines or requirements and fewer common customers, a multiple instance approach provides a better means to manage application development, data and privacy requirements specific to business units.

Ideally, from a long term perspective, a single organization wide data model for core entities is likely to provide a greater leverage across functions and units with a comprehensive information availability if consumed in effective manner. However, in the initial stage of adoption, it may be beneficial to use a multi-instance

strategy to address quicker adoptions for diverse business processes by virtue of business lines or geographies.

Thus, the key questions an organization must ask are:

- What data needs to be shared and how this can be effectively leveraged across different functions and value chains?
- What are the business dynamics for data sharing / need for common data source?
- How are user communities aligned to data sources and do they require a common information/ customer base?
- Must each business unit focus on different process pain points or can it be standardized?

2. What would be the ideal approach keeping in mind the organizational set-up - a single instance with valid hierarchy or multiple instances?

Atul: There is no single ideal state and as described above, it depends primarily on:

- Extent of standardization required in terms of reporting / data visibility
- Information sharing among functions

- Autonomy of each instance (multi-business unit scenario) integration strategy, and data model

While single instance sounds attractive, creating one may not always be possible due to these factors.

Sachin: Multiple instances can help address an organization's short-term needs such as faster time to market and manageable deployments. Single instances eventually provide the benefits of data sharing and enterprise-wide reporting, building comprehensive intelligence and a 360-degree customer view.

3. In a multi-tenant environment would the approach depend on the compartmentalization of the infrastructure that a Cloud application can provide, Chinese wall model?

Atul: Multi-tenancy is an architectural construct and does not influence the decision pertaining to single / multi-instance. The decision to choose an instance strategy is governed by the factors described in the previous responses.

Sachin: Choosing between a single instance or multiple instances is driven by the organizational set-up and needs and not by multi-tenancy or product-specific capabilities. These depend on business drivers such as cross-leveraging information or 360-degree customer view.

Data Privacy and Mobility Play: Experiences, Concerns and Views

1. Data Privacy

A. Are there any key distinctions between what goes on the Cloud and what does not? Especially with regard to security measures and data governance?

Atul: Determining what data goes on the Cloud and what does not is influenced / governed by several factors in addition to security and data governance considerations.

These include:

Business Criticality of Applications: Mission-critical systems with only a select few users with uniform load typically tend to reside internally as organizations may perceive very high risk due to lack of control on disaster recovery, backup and planning.

Separation of Data between the Cloud and the On-premise Apps: If the system on the Cloud can function with local data without the need to integrate back with the internal systems, those data elements can reside or be managed on the Cloud (e.g. all leads

can reside and be managed completely within SFDC).

Master Data Management Strategy: Having a clear approach outlined for master data (registry, coexistence or transactional style) can significantly reduce data quality and integration issues - one of the most commonly encountered challenges on the Cloud. This is a foundational step and needs to be planned and attended to before or in concert with plans to migrate apps onto the Cloud. A few of my customers have taken this step before embarking on implementing a Cloud app such as Salesforce.com

Sachin: A Cloud provider is responsible for business continuity and disaster recovery planning unlike in an on-premise model where the onus is on the system integrator partner. Highly specialized business-critical applications and databases that are kept in-house for security and legal requirements as well as applications that have been built with specific system architecture must not be moved into the Cloud space. The Cloud can cost effectively handle backup, disaster recovery and data replication

based on business rules.

Deciding what data goes on the Cloud depends on an organization's existing policy regarding data privacy and the capability that the specific Cloud solution provides on data privacy.

B. What are the perceived data security risks towards Cloud adoption?

Atul: One of the biggest perceived data security risks in Cloud adoption is the lack of control and liability assumption by Cloud service providers in terms of data loss, damage and accessibility. While the storage, backup and recovery mechanisms adopted by Cloud providers are robust (and in some cases better than in-house systems), the lack of signed / contracted service levels on data security increases the data risk profile on the Cloud.

Risk pertaining to data is perceived to be even higher in case of public Clouds where there is little control over movement of data from one place to other. This is especially concerning data that contains private / personal information (Facebook faced a lawsuit recently for its inability to protect private data passed onto apps promoted on Facebook - e.g. Farmville)

The problem can get further complicated in a multi-Cloud scenario. It is not clear which Cloud owns the data (imagine SFDC exchanging contact info with Google App. Who assumes ownership of the data?)

Another aspect of data security stems from the legal / regulatory compliance requirements. For example, in the healthcare industry, any entity covered by the Health Insurance Portability and Accountability Act (HIPAA) must first negotiate and enter into a business associate agreement with a Cloud provider before it can store records containing Protected Health Information (PHI) in a Cloud computing facility. In some cases, HIPAA's substantive requirements may conflict with the Cloud provider's terms of service, and a covered entity may risk a HIPAA violation by using such a provider for data storage.

Sachin: Loss of transparency and control is a perceived risk with public Clouds. While companies are responsible for managing sensitive customer information they are often unaware of where their data resides, which can create legal and compliance-related concerns. An added challenge is the maintenance of service-level agreements (SLAs) and providing audit with a trail of activities.

2. Inter-Cloud Play

A. What are the perceived challenges faced while providing data hosting and business intelligence (BI) on the Cloud? What are the mechanisms to be considered when integrating SaaS with data and BI on the Cloud?

Atul: Multi-Cloud scenarios like these pose challenges at multiple

levels. First and foremost, one needs to plan for multiple authentications between each Cloud interaction. Problems of managing identity tokens and security are compounded if there is poor interoperability. Moreover, there are more business failure points outside the organization's control. Hence, there is a higher perceived risk in terms of disaster recovery and back-up. Data security risk also goes up significantly as now there are multiple points of data exchange outside the organization. Poor SLA commitment on data loss or damage, given multiple Cloud partners in play, can pose severe constraints on moving the business-essential apps to the Cloud. Another challenge is data portability from one app to another if the data model between the Clouds is not standardized. Yet another challenge pertains to communication interoperability - API standardization to move data seamlessly from one Cloud to other.

Sachin: Managing storage and BI on the Cloud poses disaster recovery concerns. Some of the challenges that need to be addressed are security and auditability, migration and synchronization, and bandwidth and performance. Moreover, poor data architecture with a continual growth of data sets can result in rising costs. Such challenges can be overcome with a standardized data management and integration strategy and a well-defined model such as Salesforce.com.

B. What are the top 5 considerations while integrating Cloud apps with back-end legacy or enterprise systems?

Atul: In my view, the top 5 considerations while integrating Cloud apps with back-end legacy or enterprise systems are:

- Identity and access management
- Flexibility and richness of integration mechanisms - web services, message-based integration
- Integration type (batch, real time, near real time) driven by latency tolerance in upstream business processes and functions
- Data volume exchanges between applications
- Access across firewalls - communication interoperability

Sachin: Some of the technology considerations to be taken into account while integrating Cloud apps with legacy and enterprise systems include:

- Options of integration technologies such as Web Services and the openness of legacy application i.e. The connectivity of legacy apps to other apps directly or via messaging systems (JMS, MS MQ und Websphere MQ); replacing proprietary interfaces with a scalable integration platform
- Application-level data ownership (source/consumption) and thus the need for data synchronization between legacy and new apps/processes. An organization needs to ask questions about who needs to create, consume and update the data,

and where and how this is done

- Data security and alignment with organization standards
- Data volumes which need to be exchanged between the applications
- Process integration and their impact on legacy and Cloud apps

C. Given the evolving nature of enterprise applications on a Cloud technology such as Salesforce.com, the role of an SI partner is critical in inter-Cloud play. What is expected of the SI partner?

Atul: As described before, one of the biggest impediments in moving towards a multi-Cloud ecosystem is lack of standardized Cloud interoperability, including identity management, standardized data model and governance and security mechanisms. SI partners can help identify the right apps for multi-Cloud deployment through appropriate business risk assessment mapped with a given application / technology landscape. Another area is to help establish the right foundational elements such as standardized master data management to enable a common data model - a prerequisite to efficient multi-Cloud operations. The SI partner can also play a critical role in establishing the right standardized integration model based on SOA which can be consistently leveraged across a multiple Cloud environment.

Sachin: The primary role of service providers is to implement and deliver the services customers seek from public, virtual private and hybrid Clouds. Providers can extend their current offerings to include application, consulting, support, and maintenance services, and help with change management.

The Cloud enables service providers to extend their reach beyond traditional footprints to build micro-vertical solution offerings, providing hosting/ SaaS services. SIs can provide these new solutions and approaches such as value-added systems integration and business process transformation services to address problems more effectively.

Service providers play a key role in addressing customer concerns of policy compliance, end-to-end security, quality of service management, and technical customization. They must be geared to deliver a range of functionality, service levels, and payment models.

SIs can generate diverse solutions by leveraging their experience and insight across industries or geographies.

3. Mobility: Most SaaS-based applications are browser-based and can be easily converted to mobile-based applications. That said:

A. How have the mobile offerings better enabled both customer sales and service representatives?

Atul: Mobile offerings have further strengthened the case for enabling business agility - a key tenet of the Cloud model. They promise enhanced productivity and allow both sales and service people to spend more time with customers while still feeding the information in real time / near real time into the enterprise systems. Another aspect is accelerated speed of collaboration with other partners in the value chain. A sales representative working with customers offline need not wait to upload leads in Salesforce and then pass it to the fulfilling partner (say a hi-tech distributor) if he / she is connected to the SFDC instance through a mobile interface. However, the data security issues on mobile have not been comprehensively addressed as these have to be further addressed at the device level and not all device platforms (iPhone, Android) are at same level of maturity today posing challenges in adoption.

Sachin: Contemporary businesses must rely heavily on technology to innovate and serve their customers better. Mobility has become a prerequisite for efficient operations that run from anywhere and at anytime. As Cloud computing expands in use, opening its capabilities to mobile devices has become of paramount importance. This is especially critical when it comes to offering sales and customer service personnel, who are always-on-the-road, with quick and accurate information that helps advance workflows. This enables the sales representatives to actualize service requests while on the move, log calls, send emails, update activities and access dashboards. Salesforce's Service Cloud already allows users seamless access to Google search, social media sites such as Facebook and Twitter, and online communities and discussion forums.

B. What are the white spaces in the most popular offerings in the mobile space that can improve the efficiency and productivity of your sales and service organization on the move?

Atul: Some of the key white spaces in the mobility space are:

- Customer / Channel Analytics (Customer / Partner 360)
- Real-time connections with back-end systems (planning, order management, distribution)
- Collaborative business planning and operations control (sales forecast collaboration, marketing promotions, etc. collaborative failure analysis and resolution including customer support, backend manufacturing and R&D)

When combined with apps like Salesforce.com, organizations can attain significant efficiency and productivity gains.

Sachin: Enterprise information needs to be exposed to the sales and service organization on the move. Personnel on the move need to gain access to this information by enabling key enterprise applications on mobile devices -- especially making mobile devices part of the workflow - to improve efficiency and productivity significantly.

Leveraging Force.com: Strategies

1. Do you perceive Platform as a Service (PaaS) as a model that fits Customer's business needs, helps innovate rapidly, provides agility and responsiveness, and delivers business value in an optimized IT infrastructure and resource environment?

Atul: As described before, PaaS is indeed the key enabler for making a case for increased Cloud adoption through enhanced business agility. Force.com revolutionized this space and has continued to add capabilities, including intelligent workflow (VPM), to enable businesses to build new white space apps / replace legacy apps without worrying about investments in infrastructure. It is important to note that this is happening at the enterprise level and not in the Small & Medium Business (SMB) space where the SaaS journey gathered momentum initially. At least close to half a dozen of my clients in the enterprise space have either signed up agreements on enterprise-wide licensing on Force.com or are in the process of considering Force.com as their new development platform.

Sachin: Many organizations consider the PaaS model owing to the flexibility and Total Cost of Ownership (TCO) of maintaining in-house infrastructure. Factors such as TCO, dynamic business that impacts infrastructure, infrastructure manageability and ability to deliver value quickly determine how this model fits your business. Additionally, the long-term strategy for Cloud technology is an important consideration.

2. How important is it to have an adoption strategy for PaaS after adopting Software as a Service (SaaS) for building Line-of-Business applications on the Salesforce.com platform?

Atul: They are two sides of the same coin - PaaS is a natural next step after an organization gets familiar with the SaaS model. The adoption of PaaS becomes easier as it offers the same user experience to end users while providing IT the capability to develop new apps rapidly without having to invest in infrastructure. Having said that, PaaS is still in the early stages of maturity and not a readymade solution to address all issues / capability requirements desired by LOBs. This offers partners with a great opportunity to plug these gaps by building complete pre-packaged offerings / apps for specific business functions.

Sachin: Assessing this depends on the organization's long-term strategy. As you leverage models such as Salesforce.com, you are not only deploying a Sales Force Automation (SFA) application but you are also opening the whole world of Cloud technologies for your business. So it's not just the application but the underlying technology that helps your businesses transform IT to gain benefits from the SaaS model. Further, change management becomes easier once users are accustomed to models such as Salesforce.com.

3. Are customer organizations leveraging Salesforce.com to meet a range of collaboration demands such as 360-degree customer care, enterprise reporting, partner collaboration and social networking?

Atul: Adoption of a complete solution offering from Salesforce.com is definitely on the rise. I have observed that customers who were initially using only the Sales Cloud are now increasingly leveraging the Service Cloud as well. A common theme is a heightened inclination toward leveraging Force.com as a platform to build and plug in white spaces which were traditionally supported through legacy systems. Chatter further accelerated this momentum by making feedback and communication within different functions possible and accelerated enterprise collaboration.

Sachin: SaaS CRM solutions are being increasingly used as a real-time enterprise social collaboration application and platform. Chatter delivers the familiar look and feel of social networking sites such as Facebook and Twitter to enterprise customers in a secure platform. With Chatter, users can leverage the advantages of social networking - establish networks of coworkers and team members and enable them to streamline productivity by posting status updates on documents and projects. Customer adoption of Chatter is significant because it is the first SFDC application that is designed for organization-wide use, unlike customer service management applications and Force.com development platforms, which are used by specific departments or groups of employees.

Sachin Pandhare

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Sachin Pandhare has more than 18 years of IT and industry experience. He heads the Customer care & Billing practice within Enterprise Solutions, delivering best-of-breed package solutions. His experience in delivering practice leadership, program management and consulting to operators across the globe covers several diverse service delivery models within CRM space covering packages like Salesforce.com and Siebel. He's lead multiple programs transforming customer business in CRM functions in Telecom, Banking, Manufacturing and Services industries. He has authored & mentored several papers to provide thought leadership across functional areas CRM space.

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Atul has more than 14 years of IT experience. He is responsible for sales and engagement for Salesforce.com from Infosys. His coverage areas also include Enterprise Application Integration (EAI) and services such as supply chain, customer care and Master Data Management (MDM) for manufacturing and the banking capital markets industry. Atul is also involved in program management, process consulting, IT outsourcing, implementation and sustenance services, project management and delivery, and business analysis across leading package and technology services.

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