

The Native Application Advantage Whitepaper

Why Choosing Native Best of Breed Applications for Salesforce.com Makes a Difference

Introduction

A new type of software platform is emerging, enabling innovative developers to rapidly publish applications through a “Software as a Service” (SaaS) delivery model. You can think of these platforms as a new type of operating system, where applications are built on a foundation of browser based web services instead of on Microsoft Windows, Macintosh OSX, or Red Hat Linux. Salesforce.com pioneered this trend with their Force.com platform, allowing enterprise customers to subscribe to an on-demand service, and then add applications from third parties through the AppExchange marketplace.

Broadly speaking, there are two different camps of Independent Service Providers (ISV's) emerging on the salesforce.com platform today. Most prevalent are Integration Providers who maintain a separate server infrastructure to host applications that are loosely integrated with the native Salesforce platform. These partners rely on traditional integration technologies to synchronize their applications and databases. This technology requires that some of the customer data and application logic must be stored in a different data center or on a separate server.

The second category of ISV is Native Providers who build applications that take direct advantage of the services, database capabilities, and storage provided by the native platform. These partners build applications from the ground up and treat the platform as a virtual operating system. Applications created by the Native Providers don't require a separate server or database, and they leverage the full range of services available on the native platform.

DreamFactory Software belongs to this second camp, and has pioneered the technology necessary to create best of breed native applications on the next generation of service platforms such as salesforce.com and WebEx Connect. We have created a powerful suite of products such as DreamTeam, Carousel, FormFactory, SnapShot and OrgView using our rich Interactive Development Environment (IDE) for web services. This white paper explores the significant advantages that our customers enjoy by subscribing to these native applications, versus alternative technologies that require separate servers and databases.

In brief, there are four primary advantages to DreamFactory's native approach:

- 1) Native applications populate a single data store (e.g. AppExchange) and allow universal access to this data.
- 2) Native applications have a significant performance advantage.
- 3) Native applications leverage existing investment in business applications that access this data store (such as reporting).
- 4) Native applications built with DreamFactory 's IDE offer the most secure approach

Single Data Store

Native Providers access a single data store, which allows for a shared context between all native applications. Our popular DreamTeam Project Management suite reads and writes data directly into the same database as salesforce.com's CRM system. To detail further, Dreamteam's Project Manager functionality leverages Contacts and Users within the Salesforce system for resource and task assignment. The Collaborative Calendar views the most recent Events and Tasks from the Account, and the Document Manager works with the same Documents and Folders that you are already using.

The more information a company has in a single store, the better they can mine and analyze the key drivers of their entire business. Native applications enable this capability as business process, and analysis can be performed seamlessly on all data in the virtual store. The diagram below illustrates the difference between Native applications and Integration Providers.

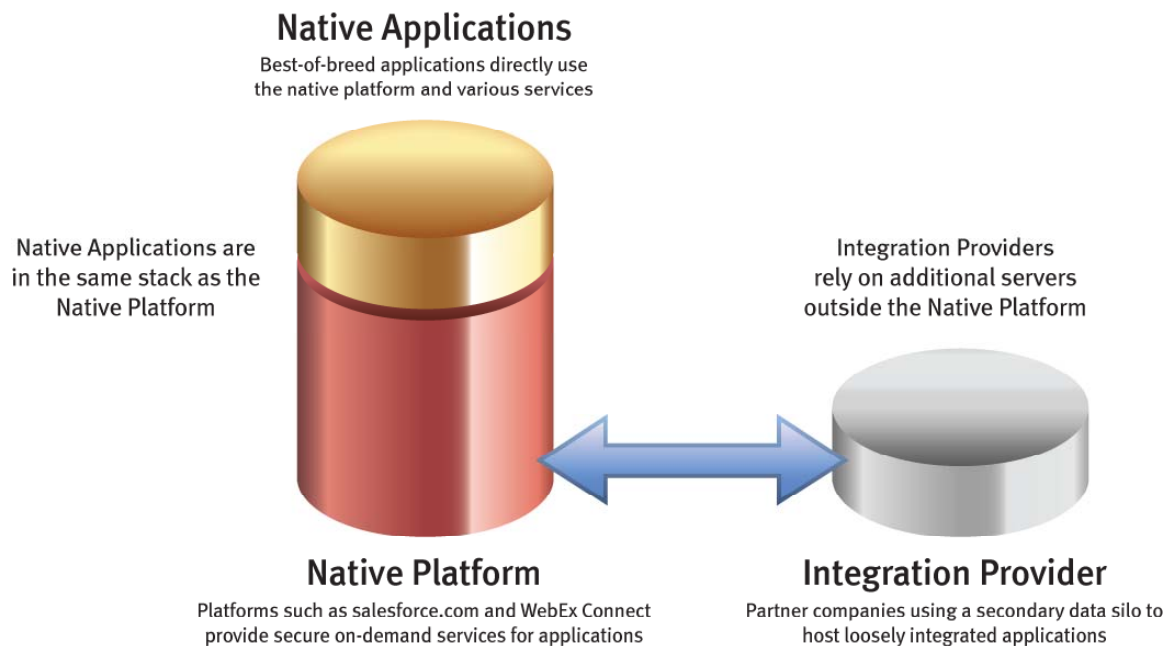


Figure 1: Native Applications vs. Integration Provider

Integration Providers typically read and write application data to and from their own database, which creates a separate data silo, and also may require synchronization with the salesforce.com database. Most if not all of their application logic and various web pages are also externally hosted. This strategy prevents easy access to all of the relevant data for other purposes. In some cases additional Enterprise Application Integration (EAI) technology must be employed to gain access to all required data or to build applications that span the data set.

Another unfortunate side-effect of this strategy is that there is a "weakest link" risk as enterprise customers must rely on each new additional server that they are using to be online and functioning correctly. The likelihood of downtime increases with each additional server stack that is required. Moreover, the risk of data loss increases from Integration Providers with lower performance guarantees and worse- those that become insolvent.

Performance

Another benefit to native best of breed applications is performance. The DreamFactory applications communicate directly from your personal computer to your salesforce.com account. The average round trip for a transaction is about one-quarter second. But if another server is involved relaying the data, and especially if this other server must image HTML pages or make other intermediate calculations, then the round trip can take three or four seconds. This difference becomes critical when navigating an interactive user interface or when multiple transactions are required.

DreamFactory uses pure XML transactions to talk directly to the salesforce service architecture. This allows for complex applications with a rich user experience that seamlessly communicate to the backend server. Most Integration Providers are using HTML web pages that are imaged remotely and sent to the client, which requires 10 or 20 times more network bandwidth and lowers the quality of the user experience.

Leverage Existing Investment

Native applications have the ability to seamlessly leverage the other business applications that you currently use. Using the example of DreamTeam again, all of the project management information that a customer creates can also be used with other native third party products or salesforce.com itself. A salesforce user can create reports about resources and tasks, or dashboards that incorporate project status information. Various other salesforce.com entities can be linked to DreamTeam objects, and the DreamTeam objects can be used to drive salesforce.com workflow. The new salesforce.com Partner Portal and AppExchange Mobile products also work with the DreamTeam custom objects.

Each time a native product is added to the ecosystem the benefits are multiplied with a network effect. Last year DreamFactory Software introduced Carousel, a revolutionary product for advanced analytics and meeting automation. Carousel allows business users to rapidly create connected reports, dashboards, and key performance indicators and collect them in to presentation decks. Carousel allows users to consume the data generated by all native partners and composite into business insight applications.

Security and Privacy

The DreamFactory architecture employs a very efficient smart client talking directly to web services. Think of it as the next generation of Client-Server, or perhaps we should call this new type of software Client-Services. This architecture eliminates two points of security failure that is inherent in the Integration Provider approach. First, there is the issue of transference of data from the salesforce.com cloud to some other set of servers that the provider owns. Again, this creates the risk of the “weakest chain in the link” as your data now is only as secure as the weakest Integration Providers security mechanism.

The second point of failure is credentials. In most cases the Integration Provider must transfer your session ID to their server. Again this creates a weakest link scenario, where some malicious source could breach the security of the weak link Integration Provider and now have access to your salesforce.com account. The DreamFactory architecture never stores credentials and never transfers data to other servers. For more information about the security risks please refer to the DreamFactory Security White Paper (http://www.dreamfactory.com/support/security_whitepaper).

Best of Breed and Native

In summary, there are significant advantages to deploying native applications on top of salesforce.com as opposed to the older style of applications provided by Integration Providers. A key differentiator is that the native applications have the unique characteristic of being both best of breed and native. In the past IT always had to choose between one and the other: jack of all trade applications that were a part of a seamless suite, or best in class applications that were poorly integrated. With this new breed of applications, IT can have their cake and eat it too.