

Frictionless participation for on-demand business

How the cloud superclient unlocks the Web for the enterprise

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The Web is moving up a gear. In the past ten years, our expectations of real-time information and engagement have been transformed by the Web, fundamentally changing the way we interact and do business. Today, the advent of cloud services from providers like Amazon.com, Google and Salesforce.com is adding a powerful new layer of pay-as-you-go automation to the Web landscape. Computing is moving online, enabling faster, closer engagement with all the global opportunity, real-time information and viral collaboration of the Web.

To compete in this new world, businesses need to be able to tap online resources securely, efficiently and with as little friction as possible. Engagement on the Web is about taking control, locating and harnessing resources with purpose, then actively co-ordinating them to achieve the intended results. Businesses must operate with the flexibility to take advantage of new opportunities as they arise, but without sacrificing control and accountability.

What's needed is a new platform that builds on cloud resources to deliver frictionless participation in the emerging business Web.

Harnessing cloud resources for business

On-demand resources and services use the Web to deliver value faster, cheaper and more effectively than was possible in a disconnected world. An expanding spectrum of cloud-based services is emerging to offer virtual computing resources, specialized information services and outsourced business functions on demand.

Each individual service offers its own unique blend of capabilities and value, but very often the greatest value is achieved by leveraging the strengths of a combination of services. Flexibility is critical, too: in the fast-moving online marketplace, the range of competing services and offerings is constantly changing, with useful new services appearing almost daily. Businesses need to act promptly to stay ahead, but existing models for interacting with the Web add friction that slows participation.

For example, an organization may have customer and prospect data stored in Salesforce.com but perhaps uses an Intuit QuickBase database to share product information with a distributed product management team. In theory, the Web makes it easy to hook up its product managers with channel partners and customers to get feedback on product development plans, bringing together data and contacts from the two cloud services. In practice, it becomes a familiar integration nightmare:

- The classic approach is to build your own server to manage interactions with various cloud services, but this adds the delay, hassle and ongoing expense of provisioning and then maintaining this extra in-house infrastructure.
- The Web-centric option is to adopt one of the cloud services as an intermediary hub to link to others. This avoids the overhead of running your own server, but it locks you into the financial, technical and administrative constraints of whichever service you choose as the intermediary, limiting flexibility.

Both approaches are rooted in a past when businesses relied on a centralized infrastructure to manage connections and engagement. The intermediary platform becomes a choke point that obstructs agile engagement with the constant innovation and real-time resources of the Web. Businesses need a new, decentralized infrastructure that allows direct engagement with cloud services while preserving accountability and governance. A new form of client – the cloud superclient – can fulfil that role.

The superclient and the cloud

Developed by DreamFactory, the superclient removes the barriers to engagement by connecting directly into the cloud as a peer rather than as a dependent client, tapping the existing computing resources of the client device instead of adding the cost, constraints and delay of a separate server. This is the key to combining the immediacy of on-demand participation with the safeguards that enterprises require.

All you need to get started is a PC and a Web connection to enable frictionless innovation directly on cloud services. The superclient maintains control of:

- **Profiles** to define how data is filtered and combined.
- **Processes** to determine user experience and workflow.
- **Policies** to govern security, compliance, performance, reporting and so on.

The superclient takes advantage of cloud resources where available, for example leveraging the access management built into services such as Salesforce.com and QuickBase, but capable of operating its own user authentication processes with a service such as Amazon SimpleDB. At a stroke, this solves the integration nightmare in the example given earlier. A team co-ordinator can create a project in SimpleDB that connects to QuickBase to source product documents and then uses data from Salesforce.com to invite customer and partner contacts to join the project application. The DreamFactory superclient allows the user to access existing data assets from two separate cloud services to initiate collaboration on a third, lower-cost service, leveraging each of the three services for the specific value they provide.



Instantly deployed to any client PC, the DreamFactory superclient delivers these transformative capabilities by providing direct access to cloud resources in a frictionless, pay-as-you-go, scale-as-you-go model that's engineered explicitly for interacting with the cloud.

Because the user interface executes on the client, it cuts out unnecessary bandwidth usage and latency created when passing data and actions to and fro between a typical browser-based client and an intermediary server. The emergence of increasingly sophisticated client technologies such as AJAX, AIR and Silverlight shows that Web architecture is trending in this direction. DreamFactory takes it to its logical conclusion, with an architecture that's purpose-built for high-speed local XML processing and secure, standards-based interactions with cloud services.

At the same time, the rich user environment of the DreamFactory superclient provides a superior platform for delivering effective business process management within a productive user experience. The superclient also has full interoperability with desktop applications, documents and resources and can operate offline. Although delivered to the client, it retains all the benefits of a cloud-managed resource, with the vendor taking care of any required patches, upgrades and so on in return for a low monthly per-user subscription.

Most important of all, the cloud superclient can link directly to multiple services, simplifying cross-service integration and allowing portability between platforms according to business need.

This combination of attributes delivers frictionless participation with cloud services:

- **Simple, low-cost provisioning** – a new participant can download the superclient code in less than 30 seconds and get started right away. He or she can be assigned a new login or use their existing login to access cloud services, according to the authentication process of the service. Because there's no infrastructure cost, the only expense to authorize is a low pay-as-you-go charge.
- **Lightning-fast interactions** – because there's no intervening 'hop' through an intermediary server, users see lightning-fast response times, and a rich user interface that enhances engagement. There's no ceiling on this: the superclient architecture scales inherently because each extra client uses its own local processing resources.
- **Embedded business process and policy** – the organization's business logic and rules are stored in the superclient rather than having to be implemented on the cloud service or an intermediary server, reducing the steps involved to add a new resource. With DreamFactory's mashup manager, business users can add their own resources.
- **A single code base for every cloud service** – the superclient delivers sophisticated applications that run on any cloud service, irrespective of the underlying database structure or management policies implemented by the cloud provider.

In short, DreamFactory's superclient transforms the entire landscape of on-demand services into a single platform for frictionless participation with the Web. It enables the delivery of enterprise class applications on any cloud platform, even simple commodity services, engaging directly with the economies of scale, global reach and real-time opportunity of the Web.

Best practice for frictionless participation

Emerging on-demand business models are giving rise to a new form of enterprise that's flatter and more agile than the old stovepipe model, when high transaction costs kept collaboration cloistered within the organization. Today, the Web removes the friction that once made external collaboration too costly. It opens up new opportunities to find value, restructure costs, discover fresh insights and foster innovation. Today's next-generation businesses engage resources over the Web on demand, co-ordinating action and delivering results around the clock and with global reach. Their slimmer profile allows them to continuously reinvent themselves through real-time collaboration and feedback.

Frictionless participation is the key to tearing down the barriers to active, purposeful engagement with the Web. Outdated methods of collaborating and sharing erect barriers in one of four ways: exclusivity; price; centralization; boundaries. Frictionless participation taps into the global, viral pulse of the Web, delivering instant engagement with live resources, on demand.

- **An open invitation model.** Exclusivity cuts you off from undiscovered assets and unexpected breakthroughs. An open invitation model removes barriers to bringing in the participants you need at the moment when they bring most value. Collaboration becomes as easy as accepting an email invitation.
- **Pay-as-you-go.** Price is an obstacle. Allocating budget, negotiating contracts consumes time and energy. Free is an obstacle too, because there's always a hidden cost. Pay-as-you-go minimizes price friction by removing most of the buyer risk.
- **Delegated access management.** The Internet works because connections are made throughout the network. Forcing participants to circle back to a central authority to license new users and obtain access rights creates friction. Access management must be delegated to the people inviting new participants in.
- **Working across internal and external boundaries.** Tap into all the value that exists on the Web by extending participation across boundaries – reaching out to other organizations, platforms, time zones, geographies, knowledge networks, communities and conversations.

Building directly on the foundation of cloud-based services, DreamFactory's superclient clears away the barriers to create a platform for truly frictionless participation. At last, businesses and the individuals they depend on are free to harness all the potential of the Web and truly make it their domain.