

SaaS Creating Eventually Consistent Business Model



Lori MacVittie, 2013-30-01

Our reliance on #cloud and external systems has finally trickled down (or is it up?) to the business.

The success of SOA, which grew out of the popular Object Oriented development paradigm, was greatly hampered by the inability of architects to enforce its central premise of reuse. But it wasn't just the lack of reusing services that caused it to fail to achieve the greatness predicted, it was the lack of adopting the idea of an authoritative source for business critical objects, i.e. data.

A customer, an order, a lead, a prospect, a service call. These "business objects" within SOA were intended to be represented by a single, authoritative source as a means to ultimately provide a more holistic view of a customer that could be then be used by various business applications to ensure more quality service.

It didn't turn out that way, mores the pity, and while organizations adopted the protocols and programmatic methods associated with SOA, they never really got down to the business of implementing authoritative sources for business critical "objects". As organizations increasingly turn to SaaS solutions, particularly for CRM and SFA solutions ([Gartner's Market Trends: SaaS's Varied Levels of Cannibalization to On-Premises Applications published: 29 October 2012](#)) the ability to enforce a single, authoritative source becomes even more impossible. What's perhaps even more disturbing is the potential inability to generate that holistic view of a customer that's so important to managing customer relationships and business processes.



The New Normal

Organizations have had to return to an integration-focused strategy in order to provide applications with the most current view of a customer. Unfortunately, that strategy often relies upon APIs from SaaS vendors who necessarily [put limits on APIs that can interfere with that integration](#). As noted in "[The Quest for a Cloud Integration Strategy](#)", these [limitations](#) can strangle integration efforts to reassemble a holistic view of business objects as an organization grows:

"...many SaaS applications have very particular usage restrictions about how much data can be sent through their API in a given time window. It is critical that as data volumes increase that the solution adequately is aware of and handles those restrictions."

Note that the **integration solution** must be "aware of" and "handle" the restrictions. It is nearly a foregone conclusion that these limitations will eventually be met and there is no real solution around them save paying for more, if that's even an option.

While certainly that approach works for the provider - it keeps the service available - the definition of availability with respect to data is that it's, well, available. That means **accessible**. The existence of limitations means that at times and under certain conditions, your data will not be accessible, ergo by most folks definition it's not available.

If it's not available, the ability to put together a view of the customer is pretty much out of the question.

But eventually, it'll get there, right? Eventually, you'll have the data.

Eventually, the data you're basing decisions on, managing customers with, and basing manufacturing process on, will be consistent with reality.

Kicking Costs Down the Road - and Over the Wall

Many point to exorbitant IT costs to setup, scale, and maintain on-premise systems such as CRM. It is truth that a SaaS solution is faster and likely less expensive to maintain and scale. But it is also true that if the SaaS is unable to scale along with your business in terms of your ability to access, integrate, and analyze your own data, that you're merely kicking those capital and operating expenses down to the road - and over the wall to the business.

The problem of limitations on cloud integration (specifically SaaS integration) methods are not trivial. A perusal of support forums shows a variety of discussion on how to circumvent, avoid, and workaround these limitations to enable timely integration of data with other critical systems upon which business stakeholders rely to carry out their daily responsibilities to each other, to their investors, and to their customers.

Fulfillment, for example, may rely on data it receives as a result of integration with a SaaS. It is difficult to estimate fulfillment on data that may or may not be up to date and thus may not be consistent with the customer's view. Accounting may be relying on data it assumes is accurate, but actually is not. Most SaaS systems impose a 24 hour interval in which it enforces API access limits, which may set the books off by as much as a day - or more, depending on how much of a backlog may occur. Customers may be interfacing with systems that integrate with back-office SaaS that shows incomplete order histories, payments and deliveries, which in turn can result in increasing call center costs to deal with the inaccuracies.

The inability to access critical business data has a domino effect on every other system in place. The more distributed the sources of authoritative data the more disruptive an effect the inability to access that data due to provider-imposed limitations has on the entire business.

Eventually consistent business models are not optimal, yet the massive adoption of SaaS solutions make such a model inevitable for organizations of all sizes as they encounter artificial limitations imposed to ensure system wide availability but not necessarily individual data accessibility.

Being aware of such limitations can enable the development and implementation of strategies designed to keep data - especially authoritative data - as consistent as possible. But ultimately, any strategy is going to be highly dependent upon the provider and its ability to scale to meet demand - and loosen limitations on accessibility.



F5 Networks, Inc. | 401 Elliot Avenue West, Seattle, WA 98119 | 888-882-4447 | f5.com

F5 Networks, Inc.
Corporate Headquarters
info@f5.com

F5 Networks
Asia-Pacific
apacinfo@f5.com

F5 Networks Ltd.
Europe/Middle-East/Africa
emeainfo@f5.com

F5 Networks
Japan K.K.
f5j-info@f5.com