



SaaS Disaggregation (SaaD™) at the Enterprise Level:

An Analysis of Seven Prominent SaaS Companies and How Contracts Can Solve the Problem

White Paper

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Introduction

Software licenses will one day join 8 track tapes, TV antennas and rotary dial telephones as an outdated form of delivering technology. Most major industry analysts predict that SaaS will take away significant market share from software in the next 5 years.¹

Among enterprise customers, acceptance of the paradigm shift from software towards SaaS will begin with drawing comparisons between the two delivery models and weighing their advantages and disadvantages.² SaaS is clearly the better business proposition. If this conclusion hasn't already been drawn by enterprise customers it soon will.

But exactly how enterprise customers will contract for SaaS, and how risk and value in their relationships with SaaS providers will compare with software licensing, presents an enormous challenge both for the enterprise market and for the SaaS industry.

In the IT industry's traditional model of software licensing, systems integration, updates and maintenance, customers know who they were dealing with because they contract directly with most if not all the vendors providing the code, the hardware, the network and the services. Large corporate customers with bargaining power in particular take advantage of these direct

¹ SaaS predictions by research firms like Gartner can now be easily found everywhere on the Internet and are not cited here.

² James River has developed a software transaction hierarchy model that reveals the comparative advantages and disadvantages of SaaS and software. For more information contact James River.

relationships with their vendors, both during negotiation of deals and over the life of the system, to reduce risk and obtain greater return on investment (ROI).

Example: XYZ Company licenses applications from OEM Inc. A great deal of services are required to develop and implement the OEM software and keep it running, so OEM provides services both directly and through approved VARs. If there are additional services needed, XYZ contracts independently with another provider and manages all vendors, or XYZ directs OEM or OEM's VAR to subcontract out the work at XYZ's discretion.

If at some point XYZ wants to outsource its IT operations or remotely host the system, like most enterprises it will contract directly with one outsourcing vendor who will be responsible for delivering the entire end user experience, in accordance with service levels that are equal to or better than what XYZ could achieve internally.

SaaS the Garage Band

Metaphorically speaking, with software the enterprise customer plays the part of the symphony conductor and the vendors are the musicians, all seated on a concert stage.

Some SaaS providers, by comparison, look more like a garage band at open mic night.

The reasons for SaaS's less orchestrated character include the following:

IDENTITY OF THE REAL PROVIDER. Though it is called a service, SaaS still requires applications and the rights to use

them, as well as a method of delivery and support services.

SaaS has given birth to a whole new generation of developers called independent software vendors (ISVs). Using Web services technology and open APIs, ISVs are authoring applications that can be reused or “mashed up” with other Web based applications from other ISVs.

SaaS “enablers” and “platforms” have also sprung up to provide the business and technology infrastructure needed by these ISVs to bring their products to market, to host them, and to bill for and provision their use.³

Resellers are relied on by many ISVs and platforms to bring the marketing muscle needed to sell SaaS.

Which of these companies is the responsible party when users have trouble is open to question.

REMOTE HOSTING AND MAINTENANCE. SaaS is delivered over the Web. It requires hosting, usually provided by third party companies, who in turn obtain numerous associated services from fourth parties. Some of these associated services are themselves supplied remotely. SaaS also requires one or more network services providers to deliver an interface and data from the server to the user client.

³ Saugatuck Technology predicts that within the next few years 3 or 4 SaaS Integration Platforms (SIPs) will dominate the provision of all SaaS services. See Saugatuck Technology Press Release “SaaS 2.0: Saugatuck Study Shows Rapid SaaS Evolution to Business Platforms” PRWeb 04/26/06.

With each additional provider entering the picture, the connection between the system and the end user gets more and more tenuous at all levels—technical, business, contractual, legal.

SHADOW PROVIDERS. SaaS provider relationships are opaque.

ISVs contract with hosting companies to serve their applications. As mentioned above, hosting companies contract out for many of their infrastructure requirements. These relationships are, almost as rule, never mentioned in SaaS marketing materials.

Rebranding also serves to hide the multiple-provider nature of SaaS.⁴

LOCATION OF DATA. SaaS takes data out of the hands of customers and puts it in remote and often unknown locations.

While easy Web browser access, total cost of ownership and mashups have been the focus both of marketing by SaaS companies and of press coverage and analyst reports, the data concerns created by SaaS have been completely ignored or oversimplified as a simple matter of obtaining a SAS 70 Type II certification.

Exacerbating SaaS data concerns is the trend over the last several years of data management becoming substantially more complicated. Data must be stored, retained and disclosed in compliance with not just Sarbanes-Oxley, but also with privacy laws, law enforcement requests, and law suit “e-

⁴ The SIIA states that third party channel sales will become a fixture of the SaaS business model. See SIIA White Paper “Channels for the New SaaS Industry” 03/07.

discovery” rules. Services firms specializing in compliance with data laws have sprung into being, adding to the number of providers required by SaaS.

Complex of Relationships

How many different companies might ultimately be involved in providing a SaaS solution? A generic breakdown of SaaS into all of its potential service components produces a surprisingly long list of corresponding providers, as shown below:

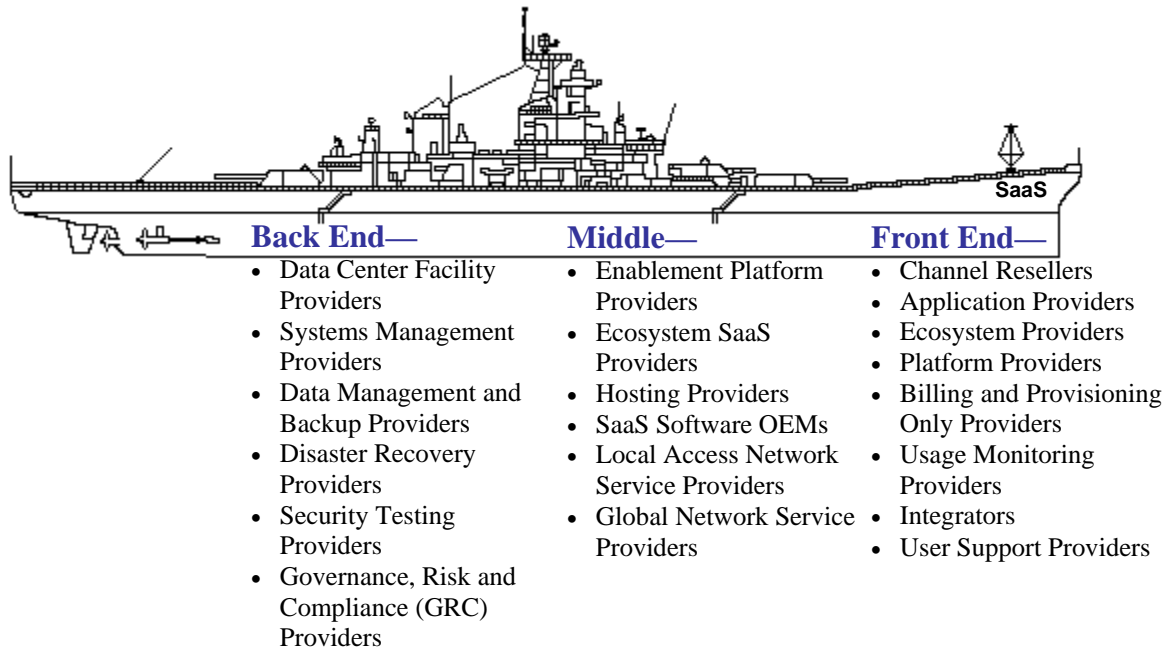


Figure 1. Lists of Potential Providers in a SaaS Offering

A single SaaS service can be comprised of many of the 20 service providers shown in the list above, located in the front, middle or back end segment of the SaaS service, each providing services through a relationship with another provider.

Beyond the numbers, the relationships between these providers can come in a variety of combinations and can take many forms: customer facing relationships, sub-

relationships, cross-relationships, hidden relationships, and implied relationships.

Subscription Non Renewal

All of the potential SaaS business arrangements discussed above are driven by the subscription contract with the end user.

Like magazines, SaaS subscriptions are short term and may easily be gotten out of

through non-renewal, unlike software licenses which are perpetual in length. Even if a software license is not perpetual, the purchase of the software is considered a long term investment by customers.

Driven by short term, easily terminable subscriptions, SaaS providers will enter into like kind relationships with each other, leading to high turn over, constantly changing service terms and service gaps.

Disaggregation

The behind-the-scenes goings on of a SaaS service are less likely to be a concern for small-and-medium-size-businesses (SMBs).

Whether a SaaS provider can really back up its 99.9% SLA, whether it can certify all of its own suppliers for financial controls, or whether its hosting facility is adequately protecting data, are by and large not causes of concern for SMBs, at least not until an outage occurs or a data breach is reported in the news.

For example, Salesforce.com experienced significant service outages in December, 2005, and again in January, 2006. Despite the outages, Salesforce.com's SMB revenues have continued to grow.⁵

At the enterprise level, best of breed management practices in the areas of IT governance, strategic procurement, risk management, quality control programs, and compliance with regulations—now collectively called Governance, Risk and Compliance (GRC)—dictate a serious and

⁵ Baseline Article "Salesforce.com: When On Demand Goes Off" 01/07/07.

calculated approach to dealing with IT vendors, especially when a new technology like SaaS is being considered.

Enterprise customers have real and definite goals for their IT vendor relationships: Do business only with companies that are financially sound and have a track record of good performance. Demand transparency into who is actually doing the work. Engage IT vendors as business partners who will share management decisions with customers. Independently verify standards and compliance. Win delivery and quality guarantees. Measure performance for ROI. Have legal recourse.

Therein lies a tension between SaaS and enterprise level customers. The term used in this White Paper to identify this tension is "disaggregation."⁶

SaaS disaggregation is defined as "the inability to deliver SaaS to enterprise customers under a contract or contracts that place all terms within the control of the customer." The goals of aggregation are to optimally reduce risk and increase the business value of the services received by the customer.

The tension between SaaS's susceptibility to disaggregation and the demands of enterprise IT governance and procurement

⁶ James River is the first consultancy to identify disaggregation in SaaS businesses. At the time of publication of this White Paper, there is only one other known discussion of the variety of possible SaaS platforms. See F. Chong, G. Carraro, E. Pace and M. Baldwin, MSDN Article "ISVs are from Mars, and Hosters are from Venus" 11/07; G. Carraro and F. Chong, MSDN Article "Software as a Service (SaaS): An Enterprise Perspective" 10/06.

will only increase over the next several years, as SaaS companies increase their marketing to enterprise customers.

In its 2007 Annual Report, Salesforce states that its growth depends in large part on acceptance of its service by medium and large companies, but that these companies may demand assurances about quality of service that Salesforce.com cannot give. Salesforce also recognizes that its service depends heavily on third party providers and that its service is vulnerable to disruption.⁷

Examples of SaaS Disaggregation

What are some examples of SaaS disaggregation?

Example: iCorkboard, an ISV that sells a SaaS personal organizer application, promises a 99.99% SLA to its customers. The SLA awards credits for outages that last more than 4 hours.

iCorkboard contracts with Hosting-for-Less, a data center, to host the application. Hosting-for-Less offers a 99.9% SLA to its customers but does not guarantee that outages will be resolved within any time frame.

The hosting company's SLA makes iCorkboard's customer SLA disingenuous and exposes iCorkboard to responsibility for awarding an exorbitant amount of credits to customers. At best iCorkboard can promise its customers a 99.89% SLA (99.9% x 99.99%). Without at least an equivalent

policy regarding outages between the two companies, iCorkboard is on the hook for awarding credits without any way to recoup lost service fees from Hosting-for-Less.

Even if iCorkboard could recoup the lost fees from the hosting company, its reputation with its customers would be damaged.

Example: Biggs and Bader, Certified Public Accountants, decide to try QuikCalc, a SaaS financial forms service. Being accountants, the customer data they will enter into the service is confidential.

QuikCalc assures Biggs and Bader that QuikCalc leases and operates its own data center, and that they follow best practices for handling data. What QuikCalc neglects to tell Biggs and Bader is that QuikCalc uses another company to back up customer data on storage facilities located elsewhere.

The identity of the third party data repository is never known to Biggs and Bader, subjecting them to legal and professional liability.

Example: Connectcom, a metropolitan fiber network carrier, resells SaaS applications hosted by SaaSplat, a SaaS platform and online marketplace. Connectcom's customers include companies that provide their own customers with access to the SaaS services.

The channel sales agreement between SaaSplat and Connectcom states that no one may assign or sublicense the service subscription or otherwise provide access to the services to other parties. Connectcom's customer agreements contain no such clause.

⁷ See Salesforce.com, Inc. Form 10-K Filed 03/09/07, pp. 21 and 16.

Connectcom's customers are technically engaging in unauthorized use of the services.

SaaS™

James River has developed a proprietary methodology for analyzing SaaS disaggregation called "SaaS-as-a-Disaggregation™," or SaaS™.

SaaS™ looks at 1) the business model which a SaaS provider follows and 2) the business relationships between the business parties that are involved in delivering and supporting the SaaS service. SaaS™ then rates each SaaS on how well it serves enterprise customers' IT contracting goals.

ENTITIES. SaaS™ breaks down a SaaS business by employing a set of entities that represent the major required components of a complete SaaS service, from development of the application, to delivery of the interface to end user computing appliances.

SaaS™ drills down into a SaaS service to further analyze its aggregate and disaggregate qualities by studying in depth how the SaaS service operates as a technical operation and as a business. Information provided by the SaaS company itself, by third parties actually involved in providing the SaaS company's service, and press and analyst materials covering the SaaS company are used in the study.

RELATIONSHIPS. SaaS™ obtains copies of the actual contracts, where available, used by the SaaS company and all other third parties engaged in delivering or supporting the SaaS service. Contract terms are reviewed, and all rights and duties

otherwise existing between constituent providers are assessed, e.g., channel sales programs.

The contracts and relationships looked at include customers, partners, resellers, ISVs, developers, hosting companies, suppliers and most but not all remotely linked providers.

RATING The SaaS™ analysis ends with a SaaS Power Rating™. The rating indicates how well a subject SaaS company's business model, third party contracts, and other features of its service produce aggregation.

The Power Rating does not include robustness of application functionality, strength of service levels agreements, customer satisfaction, revenues, or attractiveness as an acquisition.

Explanation of SaaS™ Diagrams and Power Rating

Appendix A at the end of this White Paper sets forth a legend for interpreting SaaS™ Business Model and Contract Arrangement diagrams, and the criteria and formula for determining the Power Rating.

BUSINESS MODEL DIAGRAMS. More entities surrounded by fewer solid circles and fewer colored buttons means a more highly aggregated SaaS business. As fewer entities are surrounded, or more dashed circles appear, or more colored buttons appear, disaggregation increases.

The following diagram illustrates an ideal enterprise level SaaS service without any disaggregation:

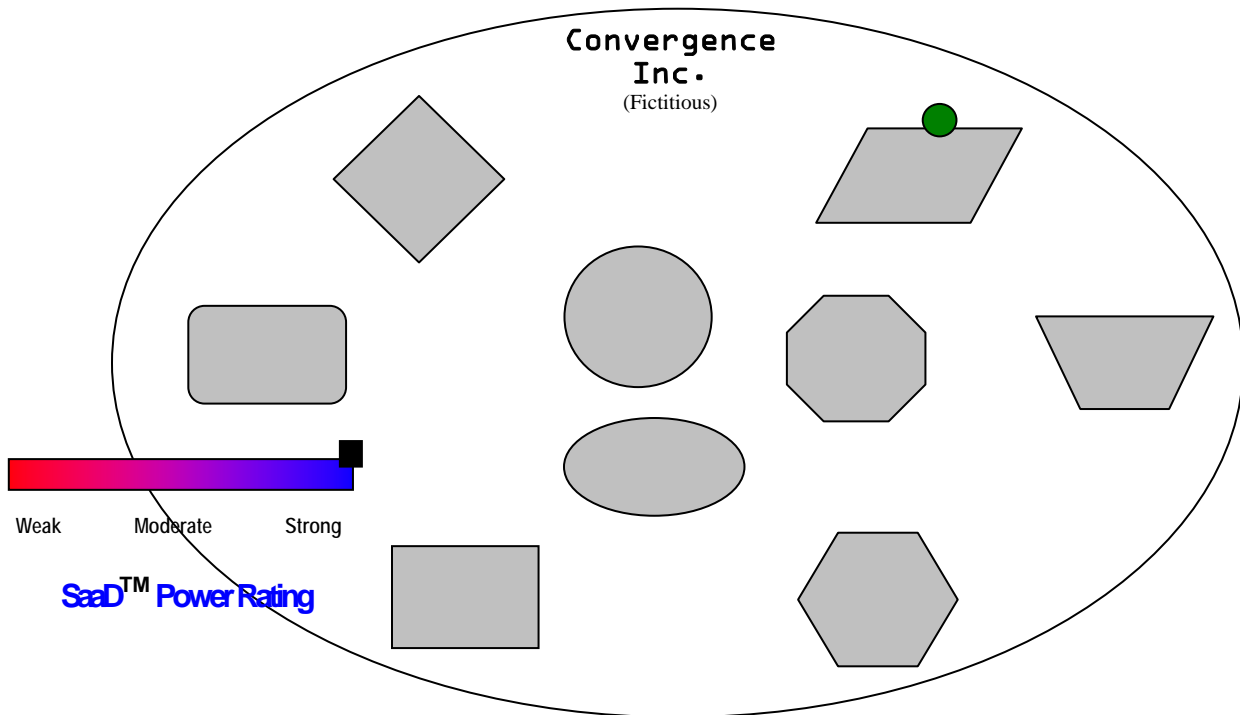


Figure 2. Benchmark SaaS Company Business Model

The entities—On Demand Application, On Demand Infrastructure, Ecosystem, Sales Channel, End User Consulting Services, Hosting Facility, Data Management, Systems Management—represent the technical and business services necessary to deliver a SaaS offering to end users.

The circles around the entities show what services are provided as part of a subject company’s SaaS business, whether the company services the entity completely or partially, and whether they are provided directly by the company or through a third party.

The different colored buttons show points at which some contract is necessary to deliver the SaaS service. Each color signifies a different type of contract.

CONTRACT ARRANGEMENT DIAGRAMS. Different colored arrows signify 1) the form of a contract, e.g., signed document or online terms, and 2) the level of review of the contract for purposes of the SaaS™ analysis.

Copies of contracts and online terms are obtained from the subject company and from third parties and customers actually doing business with the subject company, if available or made available upon request.

The companies shown in Contract Arrangement diagrams in fact do business in the roles depicted, however, these companies may or may not have actually done business with the other companies depicted.

Subject Companies in this White Paper

The SaaS companies reviewed in this White Paper represent a cross section of SaaS businesses.

SaaS providers can be divided into three major categories: 1) SaaS, which is delivery of software applications over the Internet, 2) Platform-as-a-Service (PaaS), which is provision of a SaaS application development platform over the Internet, with and without delivery of the application of the Internet, and sometimes including other features such as user administration and billing; and 3) Infrastructure-as-a-Service (IaaS), also known as “cloud computing,” which is provision of only the hardware and software needed to deliver SaaS applications either over the public Internet or within a private cloud. The companies reviewed in this White Paper all have elements of at least two if not all three of the three categories.

Salesforce.com and WebEx are the two most mature and comprehensive SaaS companies existing in the industry today. Their service offerings contain SaaS, PaaS and IaaS elements and are well aggregated, but nevertheless contain disaggregation.

StrikeIron, Mashery and Jamcracker also contain SaaS, PaaS and IaaS elements but are less comprehensive than Salesforce.com and WebEx and are less mature. With some exception given to StrikeIron, these companies focus wholly on ISVs, not end users. Each company takes a very different business approach to SaaS from the other two.

OpSource and USi are hosting companies that market themselves as PaaS. They offer some services to software end users, but otherwise deal solely with ISVs. They represent one possible future for the adoption of SaaS by enterprise customers that harkens back to the application service provider (ASP) model.

Research on the subject companies in this White Paper was conducted from October, 2007, through December, 2007.

SaaS™ Analyses of SaaS Companies

Salesforce.com

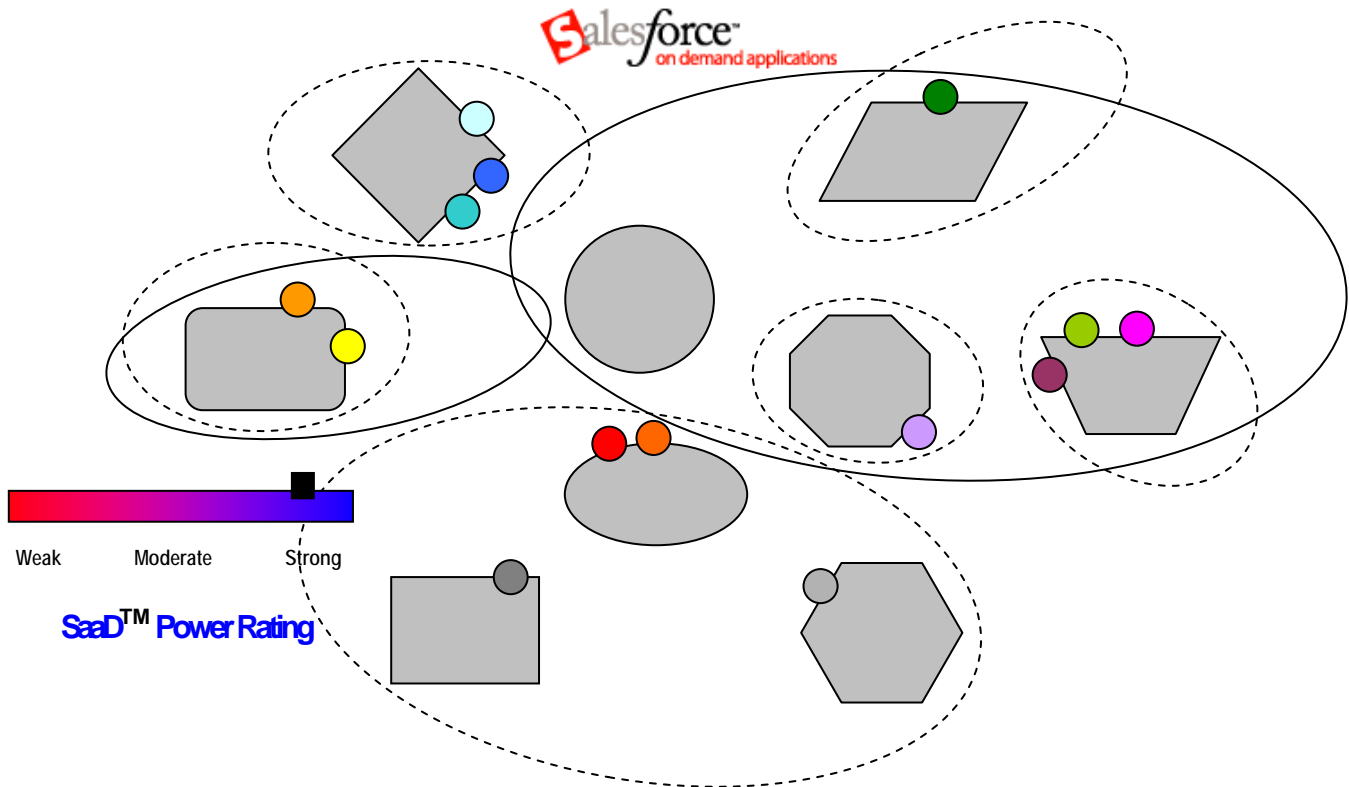


Figure 3. Salesforce.com Business Model

Description of Salesforce.com

Salesforce.com is an OEM provider of customer relationship management (CRM) software, an ecosystem, and a platform for the development, integration, mashup, sale and use of on demand applications.

Salesforce is the premier SaaS company among all SaaS companies.

For purposes of any SaaS study, Salesforce is the de facto standard by which to view all other SaaS providers. Many features of Salesforce's complex business model should serve as an early guide for molding SaaS into an enterprise level business technology.

At the same time, Salesforce is a case study in how even the most integrated and managed of SaaS providers is confronted with disaggregation.

Besides its own applications, Salesforce offers an ecosystem of over 700 other applications, called AppExchange, that are developed by its own employees as well as by Salesforce customers, partners and ISVs.

The AppExchange, the application interface for accessing AppExchange on demand services, and tools for on demand application development for deployment on AppExchange are located on a platform called Force.com.

Applications that do not run and store data entirely on Force.com must be certified by the Salesforce Review Board. The Board certifies that a proposed on demand application meets technical requirements for integration with the Force.com platform and with other AppExchange applications. The Board also looks at the developers' policies and at its application and network security. Network and application penetration testing is conducted by third party security consultants partnering with Salesforce.⁸

Approved developers, called AppExchange Partners, must enter into an AppExchange Certified Program Application Agreement (CAPA).⁹ In addition, all AppExchange end users, developers and reviewers are bound

⁸ See Salesforce.com CAPA, Exhibit A r0506; Salesforce.com Apex Developer Network Apex Wiki "AppExchange Certification" (Online); Salesforce.com Web Page "AppExchange/Certification and Trust" (Online); Salesforce.com AppExchange Certification Welcome Kit 07/12/07.

⁹ See Salesforce.com Apex Developer Network Apex Wiki "AppExchange Certification" (Online); Salesforce.com Web Page "AppExchange/Certification and Trust" (Online); Salesforce.com AppExchange Certification Welcome Kit 07/12/07.

by the AppExchange Terms of Use, which are posted online.

AppExchange is also an online storefront for end users to demo on demand applications and to contact the Partner to learn more about the application, end users cannot purchase applications. AppExchange Partners can provision their on demand applications to customers through Force.com but at the present time cannot bill through Force.com.¹⁰

Salesforce sells its OEM on demand applications directly to customers directly and through commissioned independent referral agents. The company also sells through value added resellers (VARs) who embed Salesforce OEM applications and the Force.com infrastructure in their own on demand services.

Salesforce does not sell AppExchange services; it only markets them on AppExchange. AppExchange Partners sell directly to customers; The AppExchange CAPA prohibits ISVs from selling through VARs.¹¹

AppExchange Partners contract with customers using either their own agreements, which are subject to approval by the Review Board as part of certification, or using Salesforce's default partner terms. End user agreements appear on the Partner's

¹⁰ A billing infrastructure called AppStore will be offered as a premium service in December, 2007. Salesforce.com subscription fees and AppExchange app subscription fees will be billed on one invoice but as separate items. See Salesforce.com Web Page "AppStore" (Online).

¹¹ See Salesforce.com CAPA r0506, para. 3.4.

AppExchange storefront for a 30 day trial download (if provided).¹²

AppExchange Partners provide all AppExchange application related support services.¹³ Salesforce does not sell consulting services to AppExchange end users.

Force.com supports development of either AppExchange mashups or of new, custom applications using Salesforce.com's Apex development language. A Visualforce user interface toolkit and a single API called the Web Services API are also provided for mashups. Salesforce emphasizes the platform's enterprise application administration capabilities for setting user privileges and data rules.

End users can develop workflows, or logical mashups, between AppExchange applications and build native databases using tools on the Force.com platform. Mashups can take place between native (internal) and composite (external) applications. The Force.com API allows composite applications to make calls to the platform. The Salesforce SOA feature of the Apex programming language provides for call outs to composite applications through the platform serving as a proxy; the platform interface prevents cross domain calls directly between applications.¹⁴

The comprehensiveness of Salesforce's operational model goes beyond the platform. Salesforce hosts its OEM apps and Force.com platform on its MirrorForce facilities which are managed by Salesforce and operated by third party hosting providers.¹⁵

MirrorForce consists of a main West Coast data center operated by Equinix, a mirror East Coast data center, and a disaster recovery facility in San Francisco. These facilities are connected by a dedicated, redundant OC-48 network supplied by two carriers.¹⁶

AppExchange on demand applications are hosted either by Salesforce.com certified third party providers or by third party providers proposed to Salesforce by developers (and certified as discussed above).

Lastly, one highly interesting feature of Salesforce.com is the omission of any kind of SLA. Instead, the company publishes daily reports on its service performance; the reports are limited to giving server transaction speeds and availability status for several geographically dispersed systems.¹⁷

A screenshot from Salesforce's online performance metrics site is reproduced below:

¹² See Salesforce.com AppExchange Certification Welcome Kit 07/12/07.

¹³ See Salesforce.com CAPA r0506, para. 2.2.

¹⁴ See Salesforce.com Web Page Apex Developer Network Wiki "Salesforce SOA" (Online); See Salesforce.com Web Page Apex Developer Network Wiki "Ajax Proxy" (Online).

¹⁵ OpSource, one of the subject companies of this White Paper, is certified to host AppExchange applications. See OpSource Press Release "OpSource Partners With salesforce.com to Enable Salesforce.com Partners" 09/12/05.

¹⁶ See Salesforce.com Inc. 10-K Filed 03/09/07, Item 1 Business, Operations.

¹⁷ See trust.salesforce.com (Online).

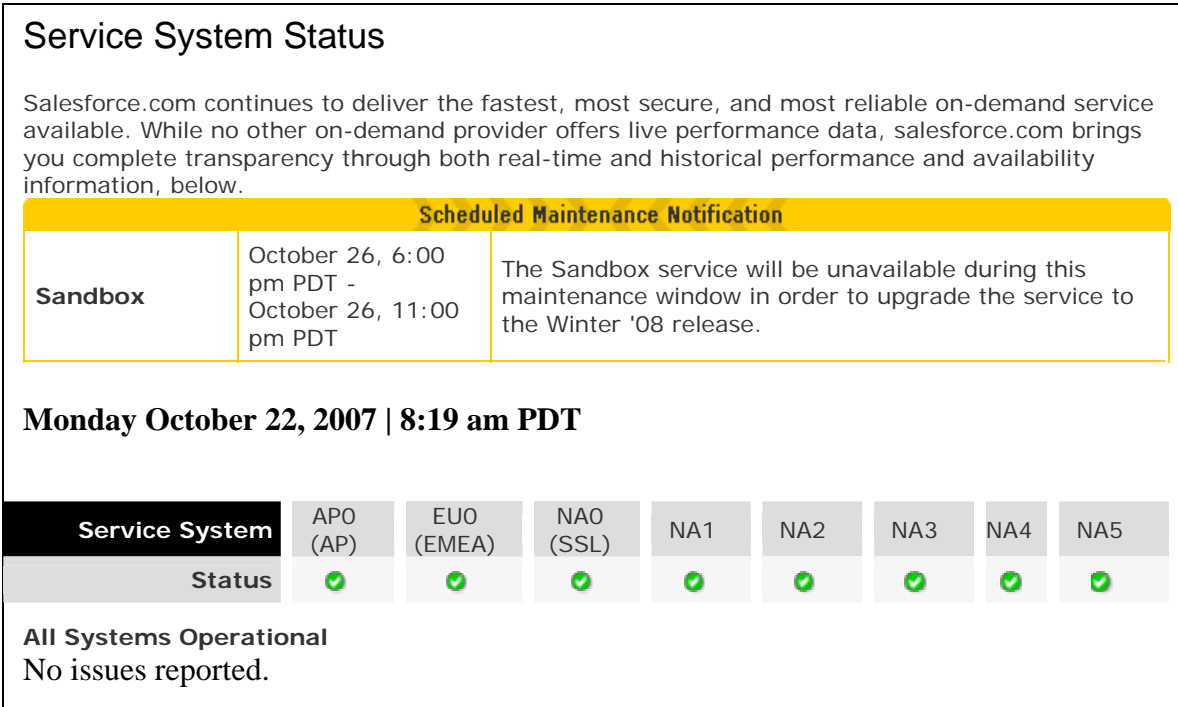


Figure 4. trust.salesforce.com

Analysis of Salesforce.com

The SaaS™ Business Model diagram bears out the high level of aggregation within Salesforce.com. 5 of 9 entities are serviced directly by Salesforce, including on demand applications, ecosystem applications, infrastructure and sales channels.

The Business Model diagram does not include the network and hosting entities within Salesforce because the company does not own and operate these facilities and services. In fact, Salesforce exercises significant managerial control over hosting, and holds some kind of lease to network capacity between its data centers

Salesforce develops both its OEM applications and some AppExchange

applications. For ISV developed applications, it employs a certification process for integration and security. Ownership and oversight over all on demand applications listed on AppExchange make for significant aggregation in the Salesforce model.

The look and feel of the Force.com platform, which is designed to provide a seamless end user and developer experience that takes place entirely within the platform, is also highly aggregated from an end user perspective.

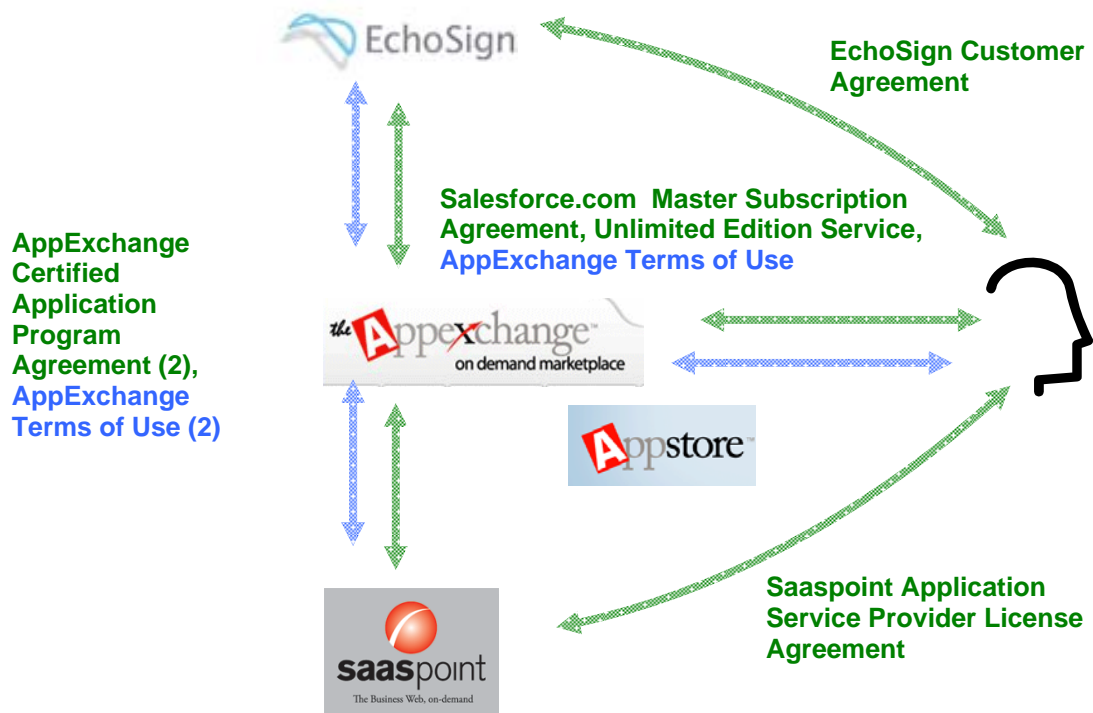
But there are disaggregating features of the Salesforce model as well. The three major points of disaggregation are:

1) Salesforce does not sell AppExchange Partner on demand services to end users. The Partners are the selling party. Each AppExchange service requires its own subscription.

2) Salesforce provides no quality of service support for AppExchange Partner services. Customers must turn to the individual Partner for help with its service.

3) In Salesforce's model, AppExchange Partners are allowed to host with third party hosting companies that have no contractual or business relationship with Salesforce or AppExchange customers and owe no duties for maintaining quality of service or data security.

Figure 5. Salesforce.com Contract Arrangement for Mashup of Two AppExchange Applications



The Contract Arrangement diagram depicts a mashup between two AppExchange Partner applications. To do this, customers must enter three contracts with three different companies. subscription agreement with each AppExchange Partner in addition to Salesforce's own services subscription agreement, which is required to access the Force.com platform and AppExchange services.

Because an AppExchange mashup involves two applications integrated with the Force.com platform, customers become burdened with reconciling service terms for the mashed up applications, the most obvious inconsistencies being the length of subscriptions and the grounds for termination for the different services.

Multiple subscription agreements, the lack of a single end user support provider, and the complexity of mashups on Force.com also burdens customers with deciphering what and who is responsible for on demand service problems.

Support is only mentioned once, in the AppExchange CAPA. Salesforce does not delineate how it works with AppExchange Partners to resolve service issues for Force.com, AppExchange and mashups in the agreement, though.

Data security for AppExchange services hosted by third parties is addressed, albeit in a discretionary way, through the AppExchange Application Certification program, which exercises approval over Partner subscription terms.

The AppExchange Terms of Use, shown in the Contract Arrangement diagram, also

addresses data. The Terms of Use are addressed to both AppExchange Partners and AppExchange customers.

The Terms of Use excuse Salesforce from any liability to users for the sharing of customer data among third party providers outside of the Force.com platform.¹⁸

Regarding Partners, a lengthy discussion of data in another section of the Terms of Use ends with Salesforce requiring Partners to exercise a low standard of care over customer data.¹⁹

It must be remembered, however, that the above mentioned data standard of care is a term between Salesforce and AppExchange partners, not a term of the separate but simultaneous subscription agreements also governing service. The two Partner subscription contracts in the Contract Diagram—the EchoSign Customer Agreement and the Saaspoint Application Service Provider License Agreement—provide terms for data security and liability for data that are inconsistent with the Terms of Use and with each other.

¹⁸ See Salesforce.com AppExchange Terms of Use, para. Installation and Use of Applications (Online).

¹⁹ See Salesforce.com AppExchange Terms of Use, para. Posting of Applications (Online).

WebEx

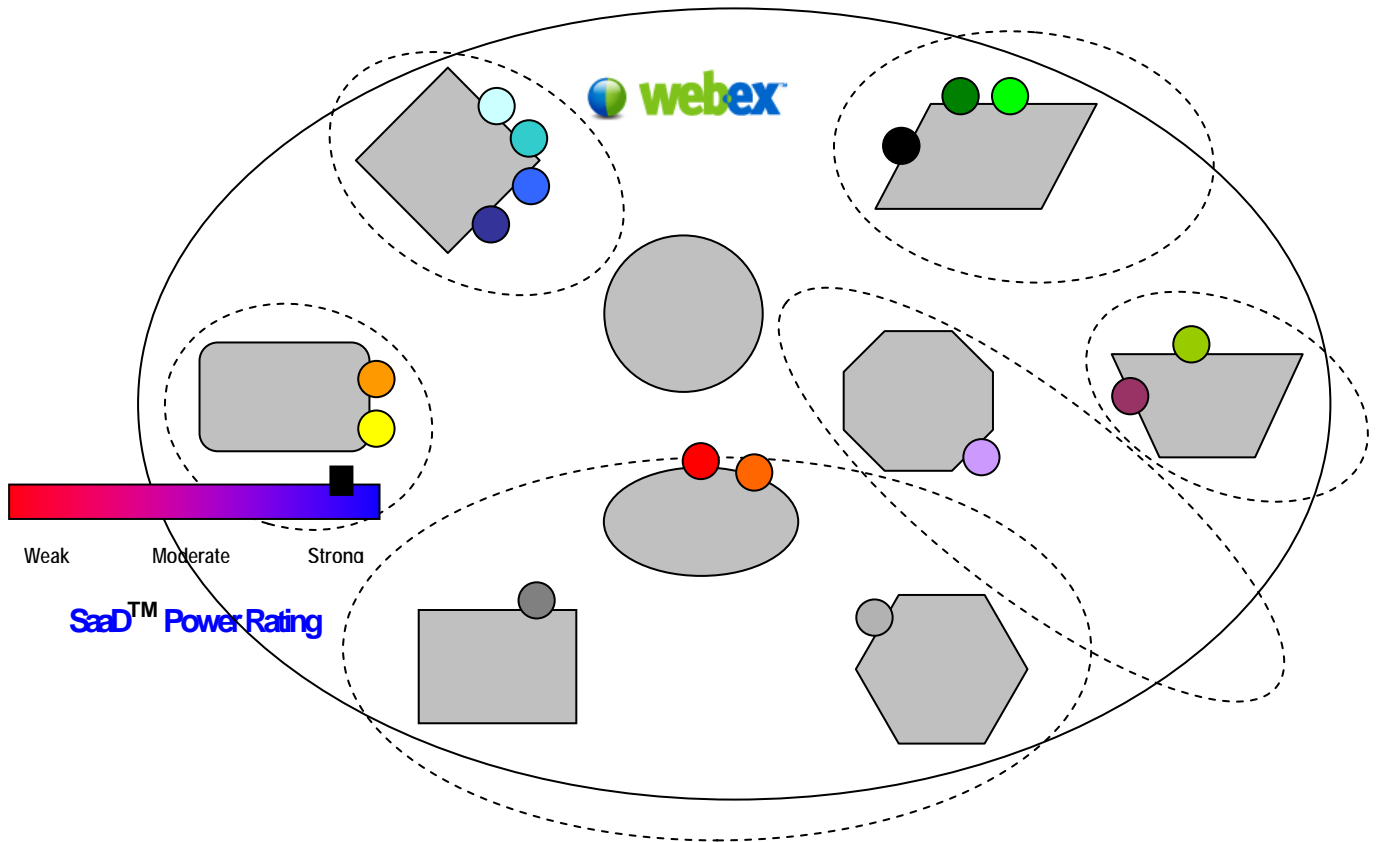


Figure 6. WebEx Business Model

Description of WebEx

Whereas Salesforce.com has evolved around on demand CRM applications delivered as SaaS, WebEx has evolved around on demand collaboration services.

WebEx is a synchronous and asynchronous OEM collaboration services, an ecosystem, a platform for mashup of internal and external on demand and on premise applications, and a global network facility.

Describing WebEx's SaaS services begins with learning WebEx terminology.

Connect is the name of the WebEx SaaS platform. Marketplace is the name of the ecosystem of ISV on demand services residing on the platform. Individual on demand applications offered by ISVs through the Marketplace are called Widgets; the name refers to the technical means for on demand applications to access the platform and to access each other.

Connect and Marketplace are accessed by developers and end users through the Connect Services Platform API and a rich client interface called Connect Client. Connect gives end users single sign on capability for all Web Ex and Connect services.

The Connect platform is a work in progress. An online Marketplace Web interface is under development, and was expected to be released before the end of 2007. The Marketplace Web pages will display storefronts for developers to market, demonstrate and sell their on demand applications.²⁰ Also, at present Connect includes on demand application management and provisioning for ISVs, but not billing. Billing may be offered in the future.²¹

As Salesforce vets ecosystem applications and their delivery infrastructure through a Review Board and a certification process, similarly Marketplace applications must be developed by ISVs, called Developers, in conjunction with WebEx's Connect Developer Services personnel and submitted for WebEx's approval. Once approved, Developers must develop widgets by which to access their applications on the Connect platform.²² Developers must also agree to the Connect Developer Terms of Service.

²⁰ See PodTech.net Podcast "From Widgets to Enterprise 2.0 – The WebEx Connect Marketplace" 09/11/07.

²¹ See WebEx Connect Developer Community Forum, General Partner Discussion 05/15/07 (Online).

²² See WebEx Partner eBriefing "A WebEx Connect Technical Deep Dive" 02/22/07.

Mashups between Widgets are called Composite Applications in WebEx terminology. Composites are created using Container APIs within the Connect platform's Widget Framework environment. Composites can possess workflow capabilities between applications and can be built using on premise applications.²³ API calls can be made cross domain between Widgets in a Composite Application. WebEx's own applications are mashed up through a separate WebEx Meeting Services API.²⁴

Like Salesforce, WebEx emphasizes its platform's enterprise end user administration capabilities, which are sophisticated compared to other SaaS platforms. The concepts of Organizations, Spaces, Groups, Roles and Privileges are used to set service access and sharing rules. The most significant feature of this administration capability is the capability to include end users who exist outside a customer Organization.²⁵

Unlike Salesforce, WebEx owns and operates its own network operating center (NOC) and main hosting facility for providing OEM on demand services and the Connect platform. WebEx's service delivery facilities are collectively called the MediaTone Network. However, MediaTone does not host Marketplace on demand services.²⁶ WebEx partners with OpSource,

²³ See WebEx White Paper "WebEx Connect Platform Brief Overview" WP-040907.

²⁴ See WebEx Web Page "WebEx Collaboration Services Platform" (Online).

²⁵ See WebEx White Paper "WebEx Connect Platform Brief Overview" WP-040907.

²⁶ See "WebEx Connect Developer Terms of Service" (Online).

one of the companies covered in this White Paper, to host Marketplace applications.²⁷

The MediaTone network is described by WebEx as a global, dedicated, carrier grade fiber network. WebEx contracts for third party data centers, described by WebEx as Tier 1 and as located near NAPs which it locates on MediaTone.²⁸ The company only collocates equipment at these third party facilities, meaning it retains control over equipment management and maintenance.²⁹

WebEx and Marketplace on demand providers (Marketplace providers are called Developers prior to acceptance of their applications, and Connect Partners thereafter) sell their services independently.

Connect Partners sell their Marketplace on demand services directly to end users.

WebEx OEM services are sold by WebEx directly and through various partner channels: Reseller Partners integrate WebEx applications into their own offerings; Online Partners offer WebEx applications along with their own online services; Consulting Services Partners resell WebEx applications as integrators.

The exception to this rule is that both WebEx and Connect Partners sell

subscriptions to WebEx Connect services to Marketplace customers.³⁰

Connect Partners are responsible for all end user support for their customers.³¹

WebEx sells development and implementation consulting services for both its own OEM services and for Marketplace on demand services to end users (recall that Salesforce does not). WebEx also sells several services (Developer, Technical Support, Client, and Marketing) to Developers and to Connect Partners.³²

Analysis of Web Ex

The crossover between the WebEx and Connect Partner sales channels, which is seen in the sale of Connect platform subscriptions and in the sale of Web Ex consulting to Connect customer, is an excellent starting point for discussing WebEx as a SaaS service.

The commingling of sales of subscriptions and implementation and support services to each other's customers hints at how SaaS companies may need to evolve to compete with traditional software in the enterprise market.

²⁷ See OpSource Press Release "OpSource Optimal On-Demand to Provide Service Delivery for Applications On New WebEx Connect" 09/26/06.

²⁸ See WebEx Web Page Large Enterprises/Overview/Technology at a Glance/"What is the MediaTone Network?" (Online).

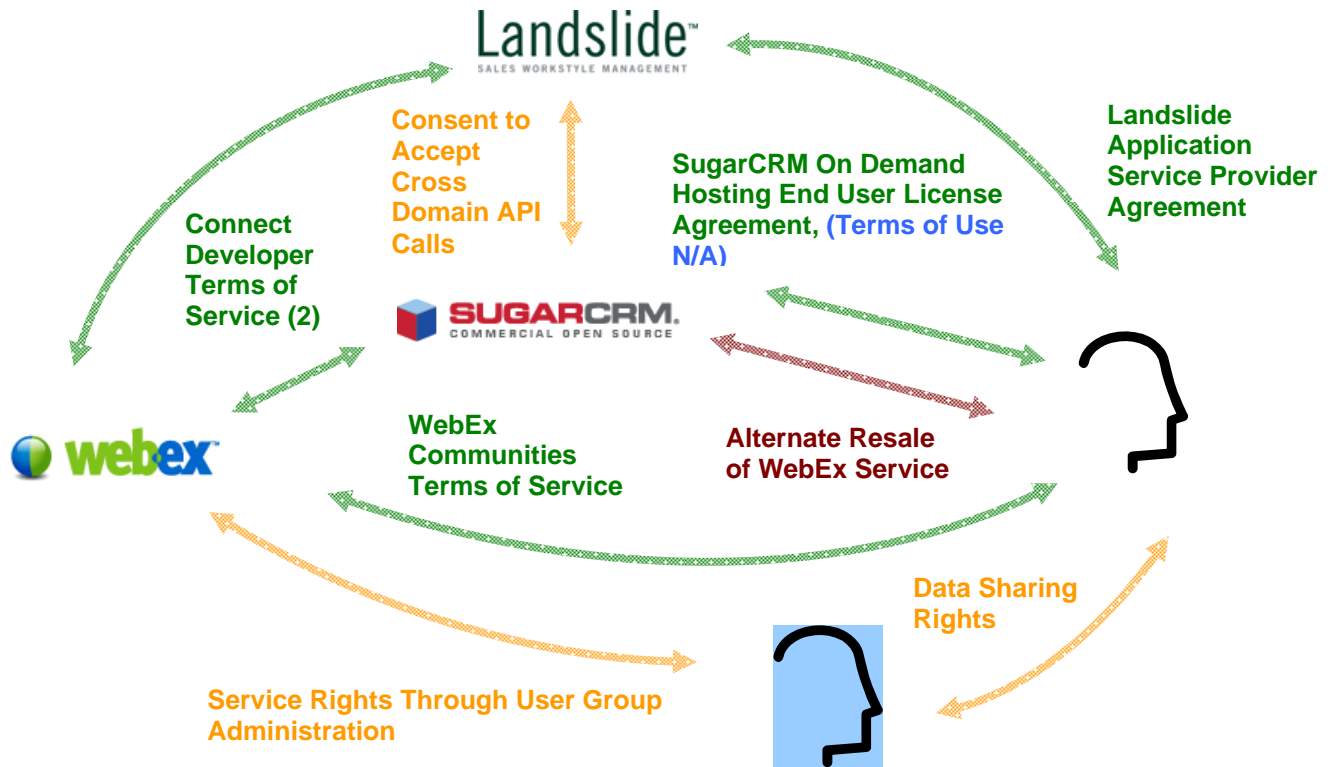
²⁹ See WebEx Communications Inc. Form 10-K Filed 02/27/07, Item 2 Properties.

³⁰ See WebEx Connect Developer Terms of Service (Online).

³¹ See WebEx Connect Developer Terms of Service (Online).

³² See WebEx Document "WebEx Partner Program" BR 367 0407 US.

Figure 7. WebEx Contract Arrangement for Connect Mashups and Collaboration with External Users



At issue is whether, in the end, enterprises will contract separately for network, platform and application services in an aggregated way that sufficiently reduces risk and meets their IT governance goals. Or whether enterprises will contract with one provider who maintains tight, visible and enforceable control over all parties engaged in the service.

End user subscription agreements are a huge variable in the aggregation equation for Web Ex because they are provided by the Connect Partners without the vetting process that Salesforce purports to follow. The end user subscription agreements in the WebEx

Contract Arrangement diagram are good examples of how widely these agreements can vary with each other.

In its Application Service Provider (ASP) Agreement, Landslide Technologies, a Connect Partner, offers an SLA of "...commercially reasonable efforts to make the ASP Application available twenty-four (24) hours per day..." Authorized use of Landslide's on demand services is expressly limited to customer employees by the ASP Agreement. Free support is given, including help desk, modifications to services processes and content, and application enhancements. Landslide does not

specifically address liability for data in the agreement.³³

SugarCRM, the other Connect Partner in the diagram, offers an SLA of service “consistent with general industry standards and ... substantially in accordance with any documentation provided by SugarCRM...” in its On Demand Hosting End User License Agreement. Authorized use of SugarCRM is limited to internal business purposes and excludes customer affiliates and subsidiaries. No support is provided. Data liability is specifically excluded. A user auditing requirement is imposed on the customer.³⁴

The Landslide and SugarCRM service terms are inconsistent with each other and are inconsistent with WebEx’s service terms, which gives customers a 99.99% SLA for MediaTone network services.

The Contract Arrangement also reveals disaggregation in the form of critical relationships between parties for which there are no known contracts. These relationships can only be legally implied and may or may not be enforceable.

Because the Connect platform allows for cross domain calls between on demand applications, Connect Partners must accept traffic directly from each other. There are no formal agreements for doing this, other

than an implied agreement to do so by Partners when they integrate their services with the Connect platform. Without terms defining the interchange, continued and full use of mashup services is put at risk.

And because the Connect platform allows for creation of user groups outside a customer organization (these outside uses are represented by the blue End User icon), non-customer companies will share data with customers through both Connect Partners and through the Connect platform. Without terms, continued use of the service and protection of data are put at risk.

The WebEx Business Model diagram fairly portrays the company’s overall aggregation profile. WebEx services all SaaS entities, yet it enters into numerous agreements with developers and back end providers to fill out its service. These disaggregating qualities are seen in the diagram are the dashed circles surrounding the On Demand Infrastructure and Ecosystem entities.

A significant limitation to WebEx’s business aggregation, not shown in the Business Model diagram, is that only WebEx OEM services and the Connect platform’s operations—not the Marketplace on demand services—are served by MediaTone. WebEx would take a giant step towards becoming a very highly aggregated business by migrating the Marketplace ecosystem to MediaTone, or to another network that it owns and operates in similar fashion.

³³ Landslide Technologies Inc. Applications Service Provider Agreement, para.’s 1.2 Hours of Availability, 1.4 Restrictions, and 1.5 Support (Online).

³⁴ See SugarCRM Inc. On Demand Hosting End User License Agreement, para.’s 9. Representations and Warranties, 2. License Grant, 3. Restrictions, 4.2 Company’s Data, 6.3 Records Retention (Online).

Strikelron

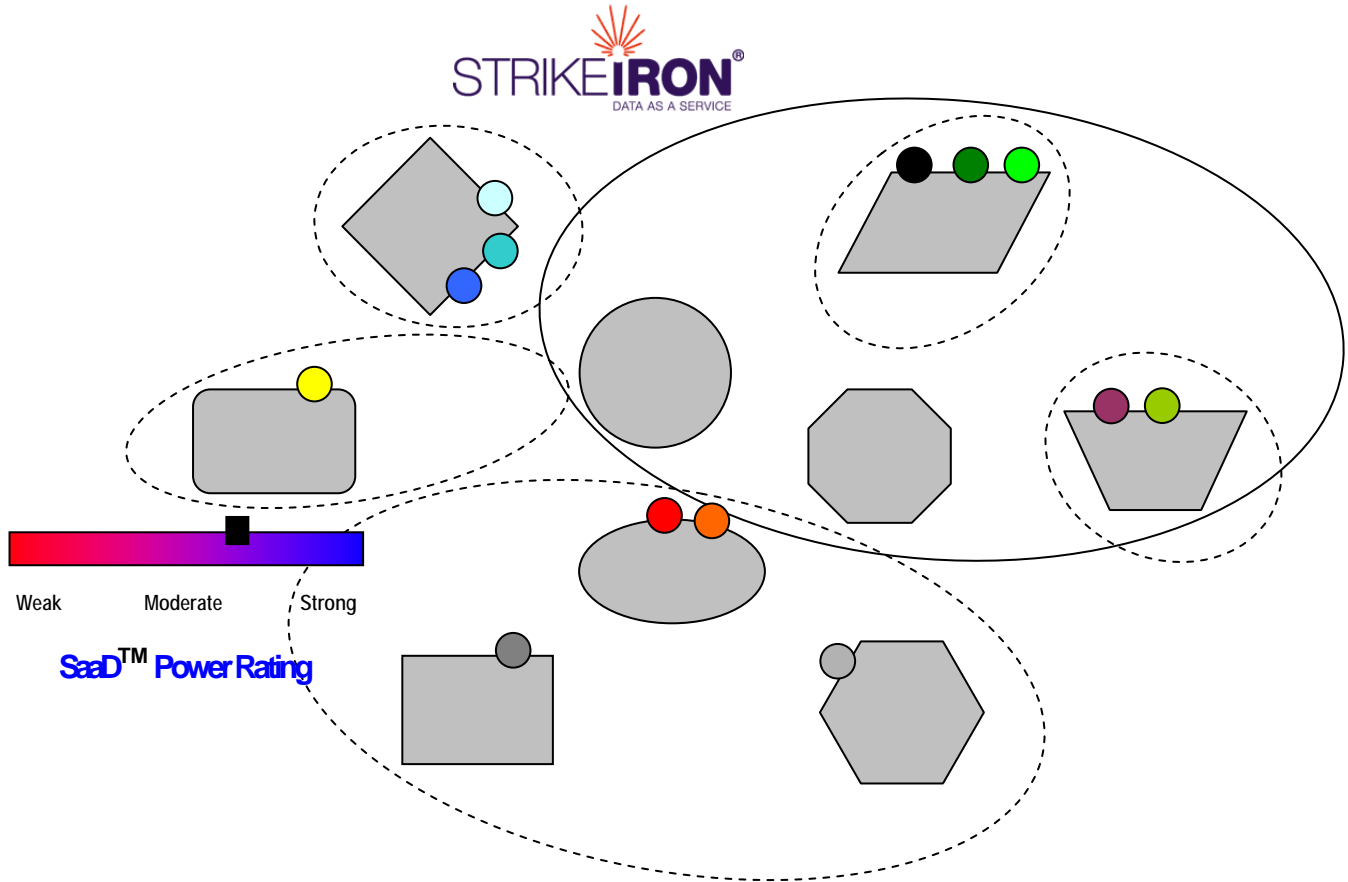


Figure 8. Strikelron Business Model

Description of Strikelron

StrikeIron is an OEM on demand services provider, a platform for the provisioning and resale of on demand applications.

While StrikeIron possesses many of the same traits as Salesforce and WebEx, its technology, operations and business model are much less sophisticated, though not necessarily less aggregated.

StrikeIron's on demand ecosystem includes about 70 (StrikeIron claims over 100) stand alone, data centric on demand applications called Web Services that provide both live data and database hits. The majority of the services are sold under the StrikeIron brand, and the other services are sold under their respective providers' brands.

Like many other SaaS companies, the StrikeIron ecosystem is listed on a Marketplace Web page on the StrikeIron site. Each Web Service listing identifies the

on demand provider who offers the service, called a Data Provider in StrikeIron terminology.

End users can try out and purchase the Web Services online through the Marketplace. All subscribed Web Services can be accessed through a single sign on using a license key.

The StrikeIron platform, called Web Services Commerce Platform, incorporates a full featured business operations infrastructure including billing and provisioning, payment collection and disbursement capabilities.

Commerce Platform also hosts developer community pages called a Developer Program, and it makes available a Marketplace API and a mashup development product called SOA Express for mashing up Web Services into their own services. During the application registration process, developers enter into an online Publisher's Agreement with StrikeIron. The registered applications are then subject to review and approval by StrikeIron.³⁵

The single largest difference between StrikeIron and either WebEx or Salesforce is that all Marketplace on demand services are purchased from StrikeIron as seller.

All end user customers enter into a StrikeIron Inc. Web Services Marketplace Usage Agreement. The Marketplace Usage Agreement licenses the right to use the Web Services, not just the platform as with Salesforce and WebEx.

³⁵ See StrikeIron Web Page "Frequently Asked Questions/Publishing Web Services" (Online).

Also unlike the other two companies, StrikeIron provides first level telephone support for all Web Services in the Marketplace. No known SLAs are offered either by StrikeIron or the Data Providers.

StrikeIron end users access the Web Services on a direct, stand alone basis through the StrikeIron platform, or they integrate the Web Services into their own on demand applications.

StrikeIron also sells Web Services to Partners. ISVs and Resellers are Partners who integrate the services into their own Web service offerings, or online catalogs, or software products, for resale. Integration Partners sell StrikeIron together with integration consulting services for creating mashups.

ISVs and Resellers enter into a StrikeIron Inc. ISV Agreement. Under the agreement, StrikeIron continues to sell its services under its own brand and under the Marketplace Usage Agreement. ISVs and Resellers may label their integrated services "Powered by StrikeIron." Resellers are responsible for end user support of the integrated services.³⁶

StrikeIron contracts with HostedSolutions for hosting of the Web Services Commerce Platform and Marketplace.³⁷

Web Services are hosted by their respective Data Providers.

³⁶ See StrikeIron ISV Agreement 02/08/06, para.'s 2.3, 2.4, 4.3.

³⁷ See Hosted Solutions Press Release "StrikeIron Signs Web Hosting Agreement with Hosted Solutions" 111203.

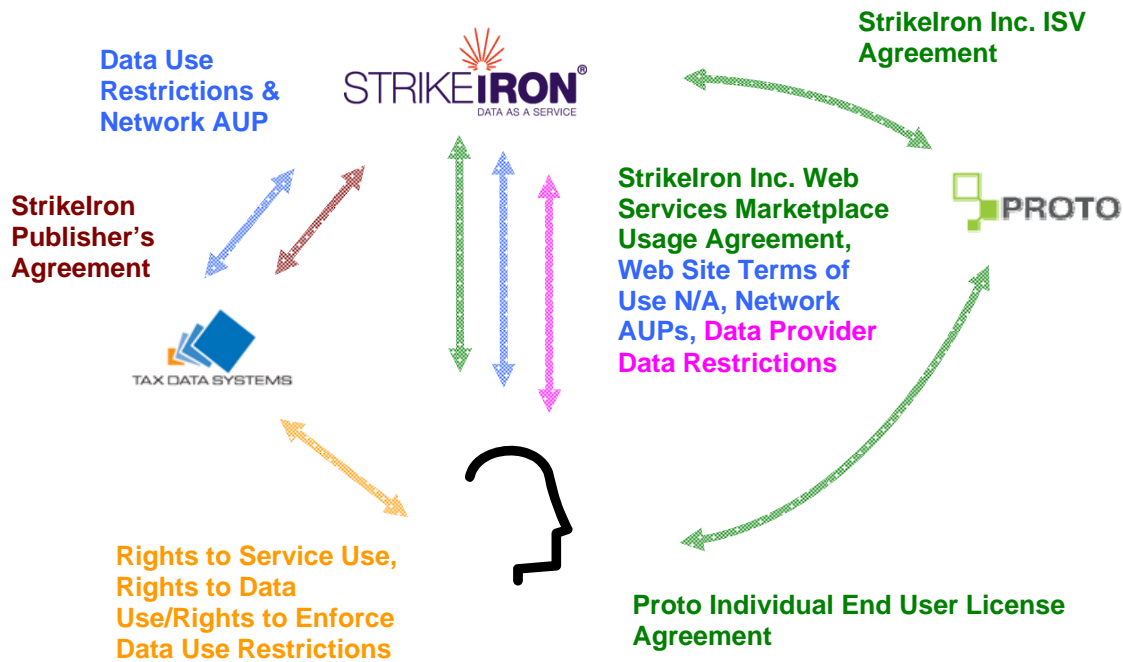


Figure 9. Strikelron Contract Arrangement for Resale of Marketplace Applications

In addition to managing the Marketplace and Web Services Commerce Platform, StrikeIron sells data cleansing services to Data Providers. StrikeIron also offers hosting services to Data Providers and ISVs as a premium service.

Analysis of Strikelron

StrikeIron can fairly be summarized as a SaaS company with a well aggregated business operations infrastructure and end user subscription arrangement, but with disaggregation appearing in many other places.

StrikeIron's strongest point is its online purchasing infrastructure. End users purchase all Web Services online directly

from StrikeIron under a standard online end user subscription agreement. The Web Services Commerce Platform conducts subscription payment processing, provisioning, billing of end users, and disbursement to the Data Providers. StrikeIron provides first level support to all on demand services end users.

The first disaggregation red flag is raised in the Web Services Marketplace Usage Agreement, which is included in the company's Contract Arrangement diagram.

For reasons that are hard to surmise, the Marketplace Usage Agreement contains language that subjects end users to additional third party data provider restrictions on data use. The provision

places a burden on end users to affirmatively read and agree to these restrictions, and StrikeIron disclaims any liability regarding data.³⁸

The Marketplace Usage Agreement also obliges end users to abide by “...all then-current requirements, procedures, policies, and regulations of networks connected to or using the StrikeIron Marketplace.” Again the agreement’s aggregation value as a single service agreement is compromised by referencing unknown third party terms.³⁹

The second red flag raised is StrikeIron’s contracting for services directly with end users while relying on Data Providers to do their own hosting. This contract arrangement twice removes end users from any direct relationship with hosting providers.

Other red flags appear in the Contract Arrangement diagram: multiple terms of use governing relationships for which agreements are used; and uncertain implied rights and duties between end users and Data Providers.

The Contract Arrangement depicts the two ways end users can purchase StrikeIron Web Services, 1) directly from StrikeIron, even if the service is provided and hosted by a third party; and 2) through Resellers who sell the StrikeIron service as a mashup with their own.

³⁸ See StrikeIron Inc. Web Services Marketplace Usage Agreement WS-USAGE-V2, para. 3.2 Responsibility for Transmitted Data (Online).

³⁹ See StrikeIron Inc. Web Services Marketplace Usage Agreement WS-USAGE-V2, para. 4.3 Compliance with Laws and Policies (Online).

As has been pointed out earlier in this White Paper, resellers are a disaggregated way of selling SaaS. StrikeIron’s approach to resale is in reality a cross linking agreement with other on demand providers that creates mashups of with StrikeIron services using the other provider as a Web portal.

The StrikeIron ISV Agreement grants Resellers the right to integrate unique StrikeIron uniform resource locators (URLs) into their services, and the right to provide access to StrikeIron services to end users. In return StrikeIron pays the Reseller a percentage commission based on the traffic coming through the Reseller’s service. The Reseller must provide access to StrikeIron’s online Marketplace for end users to purchase the StrikeIron service.

Whether StrikeIron’s approach to channel sales is aggregated or disaggregated is debatable. On one hand, direct contracts between the providers and end users are maintained. On the other hand, the value being provided to end users is the mashup, which is in reality not sold by the Reseller.

Although StrikeIron does support mashups like Salesforce.com and WebEx. comparing StrikeIron with Salesforce and WebEx’s mashup services is an apples and oranges comparison.

There are several different kinds of SaaS mashups. StrikeIron supports “presentation” mashups, the simplest kind of mashup, in which data is fed one way from one source into another. Mashups that allow applications to update one another are known as “logical” mashups or workflows; Salesforce and WebEx support logical mashups.

Because StrikeIron's mashups are simple presentations, StrikeIron is able to manage its resale channels in a more aggregated way.

The differences in the mashup technologies between these companies begs an intriguing

question for SaaS and enterprise customers: whether the advantages of more advanced mashup capabilities outweigh the disaggregation that accompanies them?

Jamcracker

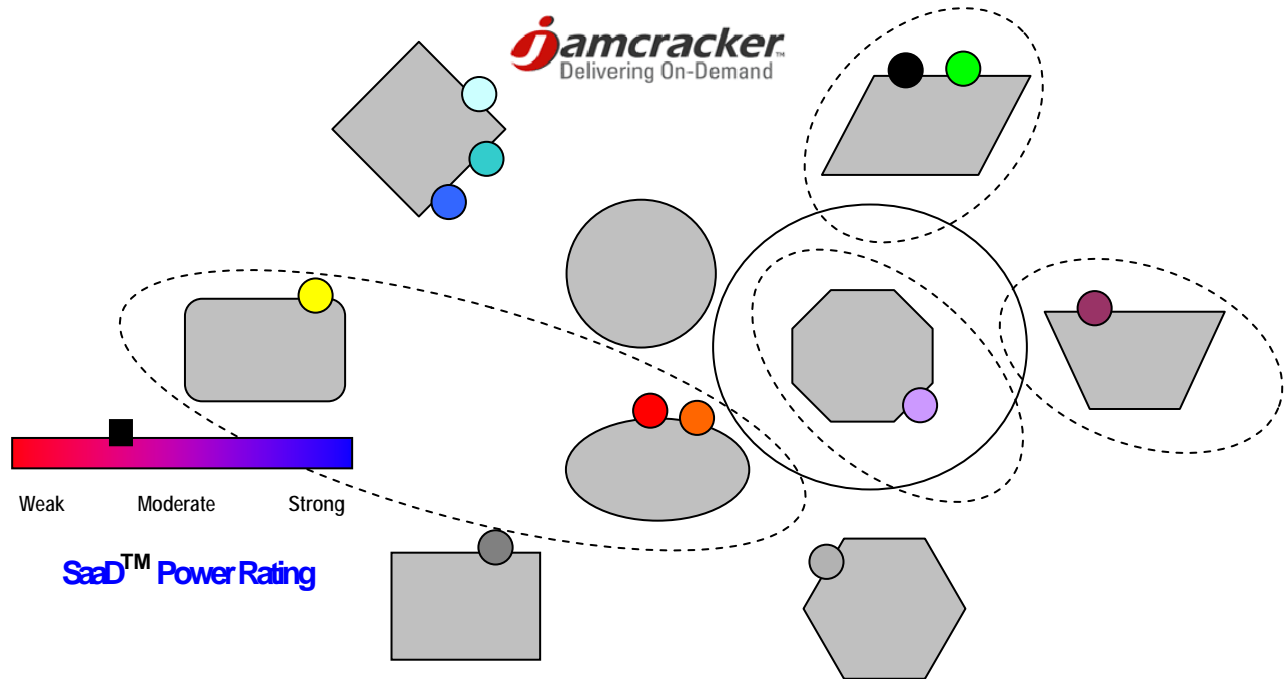


Figure 10. Jamcracker Business Model

Description of Jamcracker

Jamcracker is a platform for the multiple resale of an ecosystem of SaaS applications and associated products and services.

The company refers to itself as an “outsourced channel enablement platform.” In essence, Jamcracker is a white label SaaS platform with third party ISV on demand services.

Jamcracker’s sells its SaaS platform to ISVs who need an infrastructure with which to sell their services. Jamcracker also sells its platform plus a listing of ISV’s on demand services to resellers; the services are ISV branded. The resellers rebrand the

Jamcracker platform with their own brand, while maintaining the ISV brands for the services, and sell the services to end users;. Resellers may also be ISVs who list their own service offerings with Jamcracker.

The most distinguishing feature of Jamcracker, as among SaaS companies is that its resellers are free to sell the platform to still more resellers who can rebrand the platform yet again.

Jamcracker’s ecosystem is called an On Demand Services Catalog. It includes 150 stand alone on demand applications

The company’s SaaS platform is the Jamcracker Services Delivery Network

(JSDN). The platform serves all parties— ISVs, resellers or end users⁴⁰ Access to JSDN by is governed by the Jamcracker Service Delivery Network Terms of Use.

JSDN includes application demos, billing and provisioning, help desk, payment collection, and limited user administration. Jamcracker uses third party service providers for some infrastructure services such as email.⁴¹

For ISVs, called Solution Providers, JSDN provides APIs and standards for integration of on demand applications with the infrastructure only. The platform does not include any mashup capabilities.⁴²

Solution Providers enter into a Master Distribution Agreement as part of the application registration process. Jamcracker claims that the Master Distribution Agreement allows it to resell the On Demand Services Catalog to resellers. Providers are required to state an SLA during the registration process which can be viewed with the listing.⁴³

For end users, JSDN provides single sign on to all on demand services, however, end users must download client interfaces from the Solutions Provider to access their on demand services.⁴⁴

For resellers, called Services Providers, Jamcracker hosts its own Web site to advertise its SaaS offerings and a Partner Portal for Service Providers to manage their storefronts and perform user administration. Service Also through the Partner Portal, Service Providers access a Marketplace on a sub-platform called Jam-Mart The On Demand Superstore where they purchase on demand services from Solution Providers for resale on their storefronts.¹

Provider storefronts must refer to the Provider's own security and privacy policies by linking to pages on the Provider's company site or as additional pages on the rebranded JSDN storefront.⁴⁵ All rebranded storefronts are in reality the JSDN.

Resellers enter into a Jamcracker Online Store Agreement during the reseller registration and store approval process, called the iStore program.

Jamcracker sells white label end user support, in the form of a help desk and email notifications. The support is for the platform only. Solutions Providers are responsible for application related support.⁴⁶

JSDN is hosted by Jamcracker. It is believed that Jamcracker contracts with third party hosting facilities in Bangalore, India, and Santa Clara, California, for purposes of hosting its platform.

⁴⁰ See Jamcracker Document "Using JSDN For Members" v. 20061222.

⁴¹ See Jamcracker Privacy Policy 12/06.

⁴² See Jamcracker White Paper "Delivering On Demand Services to a Networked World" 0607.

⁴³ See Jamcracker Document "Using JSDN For Members" v. 20061222.

⁴⁴ See Kaseya Document "IT Framework Software Getting Started Guide" v.4.6.

⁴⁵ See Jamcracker Document "Using JSDN For Members" v. 20061222.

⁴⁶ Conversation with Jamcracker Representative Eric Dawson 11/14/07.

 On-Demand Services Catalog	
Communication & Collaboration Email Mobility Conferencing Hosted VoIP	        
IT Services Domain names, web hosting Desktop management Branded help-desk services	   
Security & Continuity Anti-Malware URL / IM filtering VPN - remote access, site-to-site Online data backup	      
Business Applications Desktop web apps Vertical solutions Business process outsourcing	    
Developer Services Web services Software development	  

Figure 11. Jamcracker Website On Demand Services Catalog

Solutions Providers are responsible for hosting their on demand applications.

In the past Jamcracker has teamed with hosting companies Navisite and ServePath to provide hosting services to ISVs.⁴⁷ It is not known whether JSDN technically serves in a proxy role between end users and the Marketplace on demand services.

⁴⁷ See Web Host Industry News Article Jamcracker, Web Hosts Enable Software as a Service 101904.

Analysis of Jamcracker

Jamcracker is a case study of what an enterprise-ignorant and less than carefully developed SaaS business looks like.

Jamcracker's Business Model diagram illustrates that Jamcracker works like an Internet ecommerce platform. Instead of spare parts or clothes being sold, though, it is a platform for on demand services.

If Jamcracker sold its platform as a software product, or even if Jamcracker sold its platform as a SaaS service to individual ISVs, then Jamcracker would become a third

party infrastructure provider like many other providers that are involved in delivering SaaS.

Instead Jamcracker seeks to deliver added value by bundling on demand services into a quasi-ecosystem on a platform. The services are then marketed only for resale, presumably so that Jamcracker can avoid additional marketing overhead costs. Sales channels under Jamcracker’s business model can take on any number of forms—value added services, ecosystem surrounding OEM offerings, rebranded storefront—and can be resold an unlimited number of times according to Jamcracker.

Amazingly, none of the agreements in the Jamcracker Contract Arrangement diagram do not make it clear who actually sells the on demand subscriptions to end users, a condition that is likely attributable to poor business development.

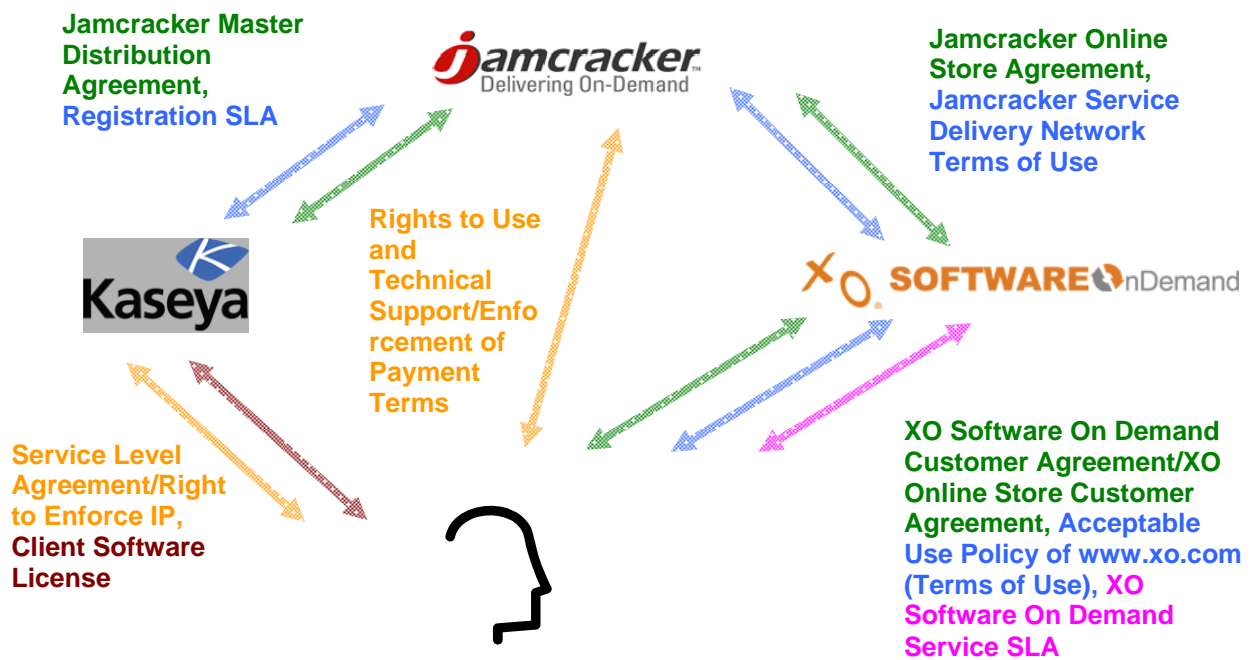


Figure 12. Jamcracker Contract Arrangement for Distribution of Solution Partner Applications

Jamcracker emphasizes in its advertising that the Master Distribution Agreement allows Jamcracker to distribute all Marketplace applications as a bundle to resellers. Jamcracker's Online Store Agreement states:

“Branded Website Customers will be Jamcracker customers. Jamcracker agrees: (b) to grant access to and use of the Services to Branded Website Customers; and (c) to handle support, maintenance, payment collection, and all other matters as if the Branded Website Customers had obtained their Services through Jamcracker's website directly.”⁴⁸

But looking at reseller XO's Software On Demand Customer Agreement, one comes away believing that XO itself has entered into a reseller agreement directly with the Solution Providers (ISVs) and that XO is itself granting end users the right to use the services:

“(“Users”) will be granted access to and use of the online On-Demand Services (the “Services”) provided via this website (the “Services Site”).”

You acknowledge that XO's licensors may require You to agree to additional terms upon registration to use Services licensed by them.”⁴⁹

Another confusion between Jamcracker's Online Store Agreement and XO comes

⁴⁸ Jamcracker Online Store Agreement 12/22/06, para. 1.2 Customer Obligations.

⁴⁹ See XO Software On Demand Customer Agreement DC01-PRICJ-302446.3

from the language in subparagraph (c) that expressly gives Jamcracker the right to collect subscription fees from end users in Jamcracker's name.

A heavily channel sales dependent business model like Jamcracker is not an aggregated one. Knowing the legal entity that the corporation is dealing with is any enterprise customer's threshold requirement for achieving all other enterprise computing vendor contract goals.

The Contract Arrangement diagram also shows the “umpteen” sets of service terms and unresolved relationships between providers, resellers, end users and Jamcracker.

Mashery

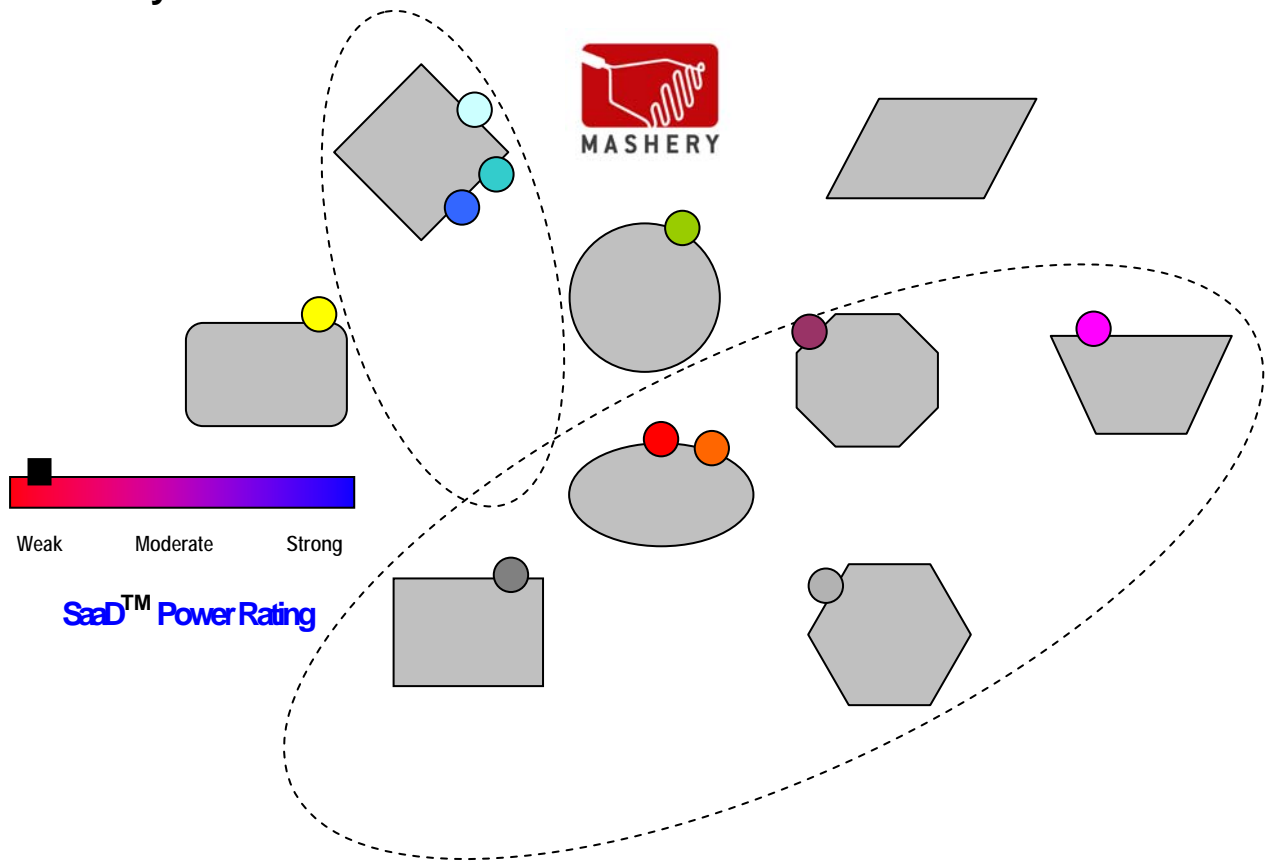


Figure 13. Mashery Business Model

Description of Mashery

Mashery is a simple on demand application platform and developer community for ISVs.

The company has been referred to in the press as a brokerage, a term which the CEO refutes.⁵⁰ Instead, the company refers to its service as API management.

⁵⁰ See Oren Michel's Blog Posting "Is Mashery a brokerage?" 08/30/07 <oren.blogs.com>.

Mashery is in essence an API proxy service. This is how Mashery works.

Mashery's customers are SaaS ISVs called Service Providers. Mashery provides an API to the Service Providers, for integration of their on demand services with the Mashery platform.

Using a Dashboard, Providers set up Portals on the Mashery platform that appear as pages on the Provider's corporate site. Providers post documentation and blogs supporting use of their APIs in the Portals.

Providers also post service terms, privacy policies, and all other terms of use on the Portals and otherwise are responsible for their relationships with their customers.

Service Providers enter into a Master Services Agreement with Mashery setting out the fee arrangement. Service Providers post a “Mashery Made” logo on their sites. Otherwise there is nothing to advertise their relationship with Mashery other than being identified as a customer on the Mashery site.

Service Providers’ customers are mashup developers; as discussed below, they are also Mashery users.

Developers register with Mashery through the Provider’s site, at which point they are called Registered Users. The online registration process is performed on the Mashery platform but appears as the Provider’s site. The Registered Users then use the account information to sign into the Provider’s Portal, which also appears as the Provider’s site, agree to the Provider’s API terms of use, and access the Providers’ applications through API keys issued by the Providers through the Mashery platform.

Developers must agree to Mashery’s Terms of Service during the registration process. The Mashery Terms of Service are separate from the Provider’s API terms.

Developers mashup Service Providers’ on demand services and provide end users with access to the mashups. Application calls are made directly to the Service Provider APIs by the mashups. The Service Provider APIs in turn redirect the calls from the Service Provider’s domain to Mashery’s domain, and Mashery, serving as a proxy, accesses

the Provider’s application through a private DNS entry.⁵¹

Mashery’s API management platform is not a business and technical infrastructure platform like those provided by the previously discussed SaaS companies. Mashery’s platform capabilities are limited to customer registration, downloading APIs, single sign on by end users, and serving as a proxy for application calls. Besides API provisioning and proxying, the platform only provides application usage and performance monitoring, usage throttling and usage limits.

A Developer Dashboard for reporting on usage of the Providers’ APIs is a planned future capability. Billing is planned as a future capability for the Mashery platform, but at present is done by the Solutions Providers.

The API management platform is hosted by Mashery. The company collocates its servers with hosting services Amazon Elastic Compute Cloud and Simple Storage Service.⁵²

On demand services are hosted by the Service Providers.

Analysis of Mashery

Studying Mashery as a SaaS company is a bit like looking into the wrong end of the telescope.

⁵¹ See TechCrunch Article “Mashery API Management Business Is Open for Service” 11/06/06.

⁵² See Oren Michel’s Blog Posting “365 Main – Second Annual Power Outage” 07/26/07 oren.blogs.com.

Mashery is an online means for mashup developers to access other on demand services. Thereafter, however, Mashery's value as an on demand services provider is limited to restricting and monitoring access to on demand services by the mashup applications. The company markets its platform's single sign on capability for all Service Providers, and content posted on the platform by developers on how to build with the APIs, as part of its value proposition, but the value of these features is slight in comparison to other SaaS platforms.

The business relationship between mashup developers and Mashery is strictly that of Web site usage. Developers are only aware of Mashery through the online Mashery Terms of Use. No fees are paid by developers for using Mashery and Mashery does not conduct any transactions with developers as an agent of the on demand providers.

One might sum up Mashery's value as a SaaS company by calling it a poorer version of Jamcracker.

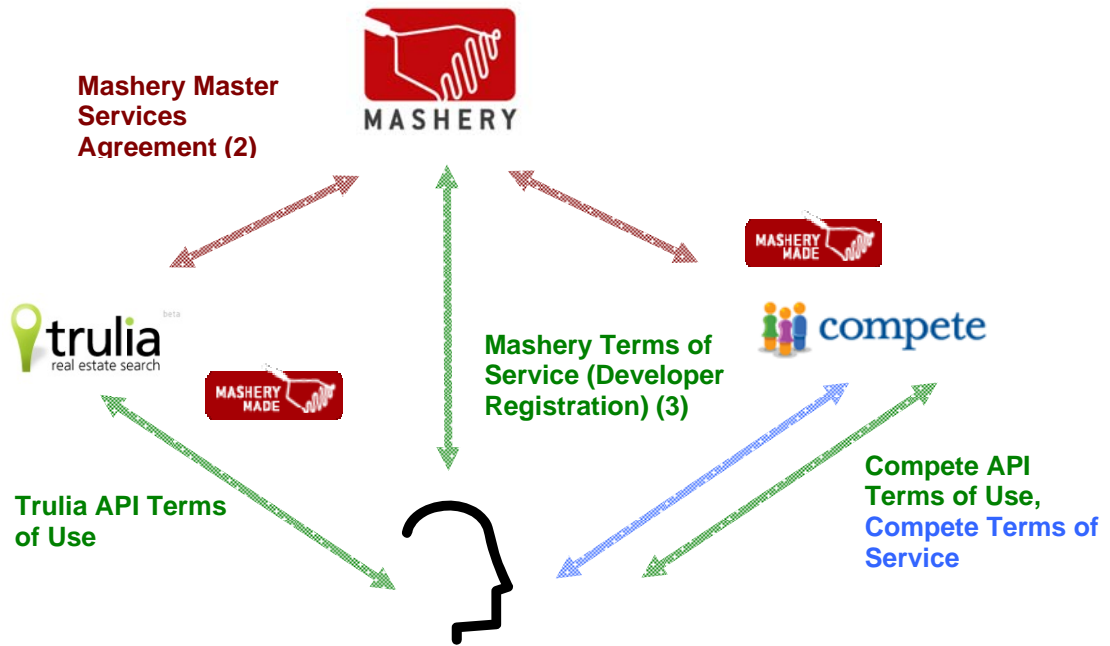


Figure 14. Mashery Contract Arrangement for Mashery Provisioned APIs and Subscription to ISV SaaS Services by Enterprise Mashup Developer

Mashery's requirement that the Service Providers' customers agree to the Terms of Service raises a significant issue for the SaaS industry's doing business with enterprise customers: whether SaaS companies should require customers to enter agreements with third party suppliers to the SaaS company if customers receive little or no benefit from the third party service.

Ironically enterprise customers often look to establish contracts directly with vendors that they want to manage themselves, for value and risk reasons as previously discussed. In Mashery's case, entering into the company's Terms of Service offers the customer no advantage and only increases risk by creating more legal obligations.

Additionally, the Mashery contract destroys any white label value in Mashery's business model, if that is in fact a business goal for the company.

The End User in the Mashery Contract Diagram is an enterprise developer who has registered with Mashery and has downloaded API keys for two on demand services to mashup. By registering and accessing the two services for the mashup, the developer's company must agree to three separate sets of terms: 1) the Mashery Terms of Service; 2) the Trulia Terms of Use; and 3) the Compete Terms of Use.

As seen with Salesforce.com and WebEx, this contracting scheme drives disaggregation. In Mashery's case, there are inconsistencies between the Trulia Terms of Use and the Compete Terms of Use.

Trulia's on demand service may be used "for your personal, non-commercial, and

informational use only." Trulia users cannot "separately extract and provide or otherwise use data elements from the Trulia Data to enhance the data files of third parties." And Trulia users are prohibited from using Trulia data in a mashup "that competes with products or services offered by Trulia, Inc."⁵³

Compete's terms include some terms that are parallel with Trulia's terms, suggesting that Mashery may exercise oversight over its Service Providers' subscriptions. But none of the above quoted terms from Trulia appear in the Compete terms. These inconsistencies make the mashup development depicted in the Contract Arrangement diagram problematic for the corporate user.

⁵³ See Trulia, Inc. API Terms of Use, para. 2. Copyright and License (Online).

USi

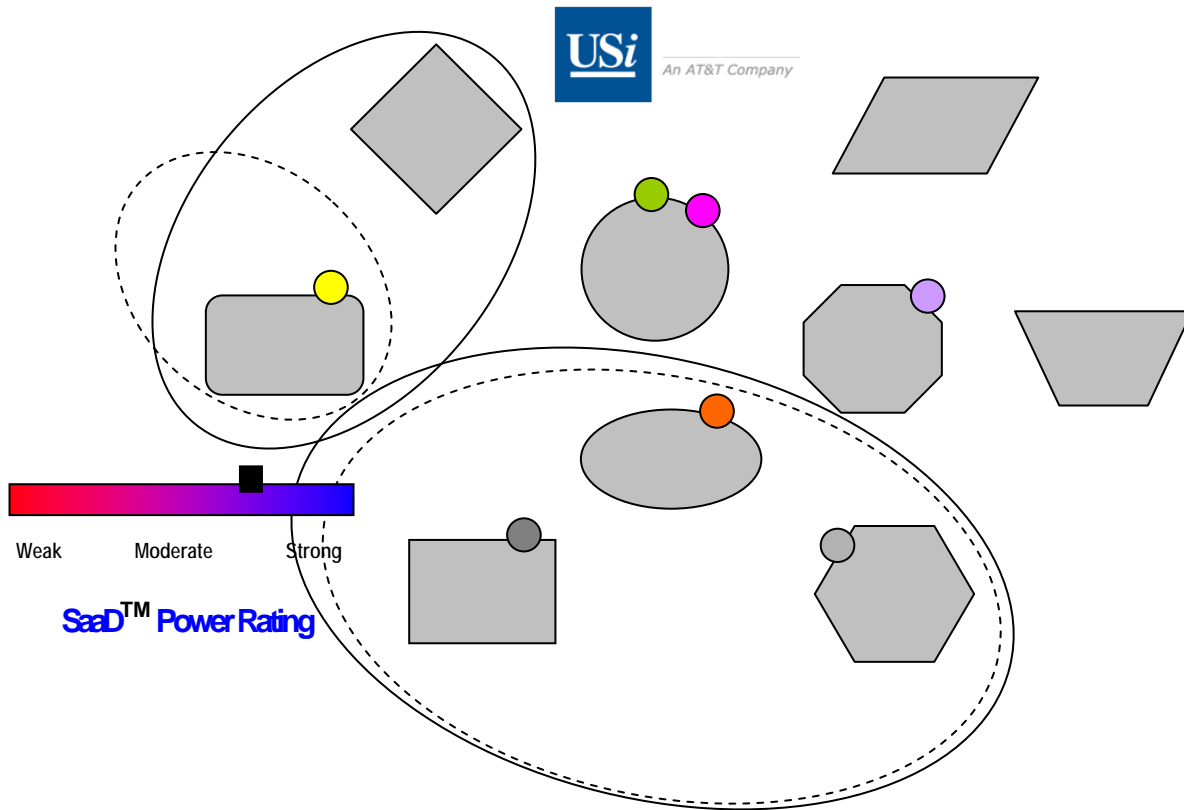


Figure 15. USi Business Model

Description of USi

USi is a hosting company owned by a major telco. It sells SaaS enablement and hosting services, software application hosting, managed hosting and remote management of on premise systems.

USi has no OEM or ISV ecosystem of on demand applications, other than the customers listed on the USi Web site.

The company markets managed hosting and related business and technical services to software companies transitioning to SaaS;

the service is marketed under the name TopLineISV, which USi refers to as “SaaS enablement.”

Specifically, TopLineISV services include managed hosting and technical support, business strategy, and marketing and sales support.⁵⁴ The company also offers a TopLineISV Partner Program service to existing SaaS companies which includes posting the customer’s company description and link on the USi Web site.

⁵⁴ See USi Document “TopLineISV: USi’s Software as a Service Enablement Package” 07/23/07.

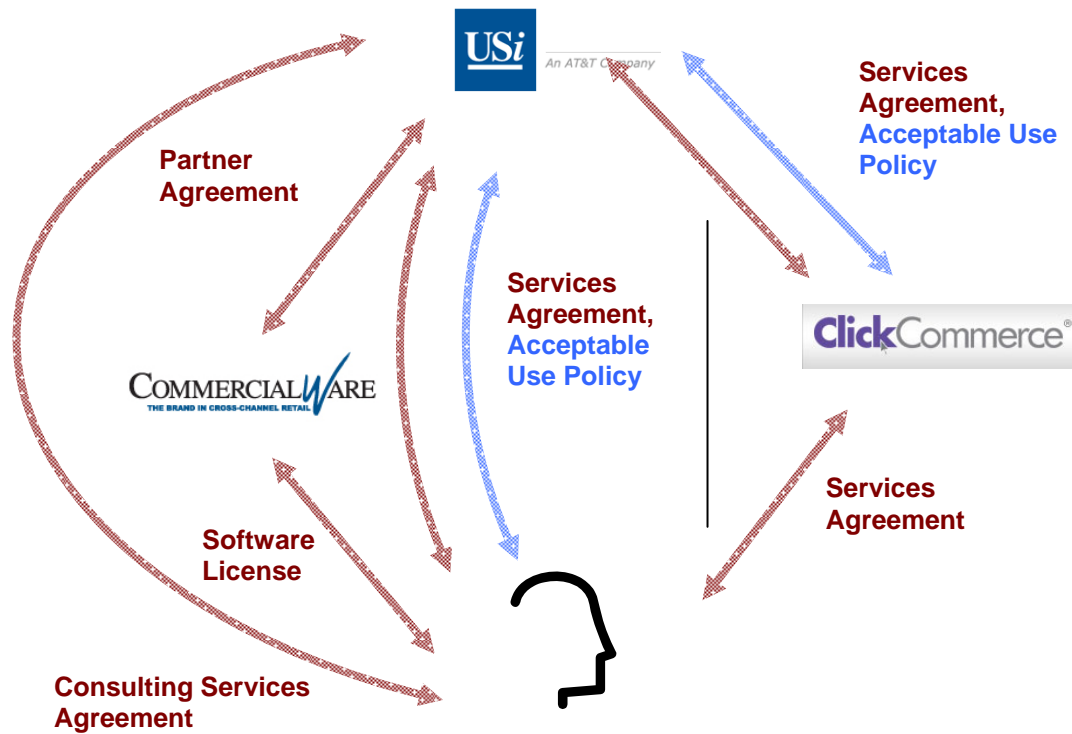


Figure 16. USi Contract Arrangement for Hosting of Both On Demand Service and Software Application for Mashup and Associated Consulting Services

Unlike any of the other SaaS companies in this White Paper, USi offers application service provider (ASP) services through Product Channel Partners whose licensed software compliments USi’s program.

Finally, USi sells a number of consulting services: on premise and on demand systems integration services through the Consulting Partner Channel Program; services for Ariba, Oracle, and Peoplesoft applications; general management consulting services called USiHorizon;⁵⁵ and remote systems management services using a proprietary technology called USiOasis.

USi owns and/or operates 3 data centers in Colorado, Maryland and Illinois. Parent company AT&T operates 30 Internet hosting centers globally.⁵⁶

USi emphasizes its quality of service guarantees. SLAs include application availability, incident response/resolution time, system security, patch and fix implementation, and business process performance.⁵⁷

⁵⁵ See USi Web Page “Professional Services: The Beginning of Your Enterprise Application Lifecycle” (Online).

⁵⁶ See USi Press Release “AT&T Completes Acquisition of USi” 10/20/06.

⁵⁷ See USi Web Page USi Lowers Your Risk Through Comprehensive Service Level Agreements (Online).

A portal called USiView allows ISV customers to monitor application performance. The company emphasizes compliance, security certifications and disaster recovery capabilities in its hosting service.

Analysis of USi

USi is a former ASP hosting provider that survived the Dot Com Bust, was purchased by AT&T in October, 2006, and has caught on to the SaaS movement by marketing traditional managed hosting services to on demand providers and ISVs entering the market.

USi presents a formidable SaaS model for the enterprise computing market. USi may be an example of the proper starting point from which to build an enterprise league SaaS company.

USi's is chiefly distinguishable from the other SaaS companies in this White Paper in that the company, besides hosting on demand services, is able to offer enterprise customers the option of licensing software from OEMs and contracting with USi to host and manage the application, or to outsource existing on premise systems to USi, or both.

Another chief difference between USi and the other SaaS companies is that, as seen in its Business Model diagram, the company completely services both the Hosting and Network entities, the entities in a SaaS solution that are 1) the most critical to enterprise customers for service levels and security and 2) the most expensive own and operate. Its services for these entities are as aggregated as commercially possible.

True, there are 4 SaaS entities in the Business Model diagram that USi does not service. Although this limited business model amounts to disaggregation, the disaggregation is not as bad as it appears on its face.

From the enterprise customer perspective, the entities that USi doesn't service are the portions of a SaaS solution where enterprise customers A) see the greatest need for direct contractual relationships and vendor management, and for customization to meet requirements and B) are best suited to manage by themselves or to outsource to management consultants.

The Contract Arrangement diagram shows an end user mashing up a software product from CommercialWare, hosted outside the end user's company, with an on demand service from ClickCommerce that is hosted by USi.

Although there are a large number of contractual relationships in the arrangement, the end user is dealing directly with all three vendors.

Further, the end user's relationships with the three vendors are strengthened by the partnership between CommercialWare and USi, and the common hosting of both CommercialWare's software product and ClickCommerce's on demand service by USi, and USi's serving as consultant to the mashup by the end user.

OpSource

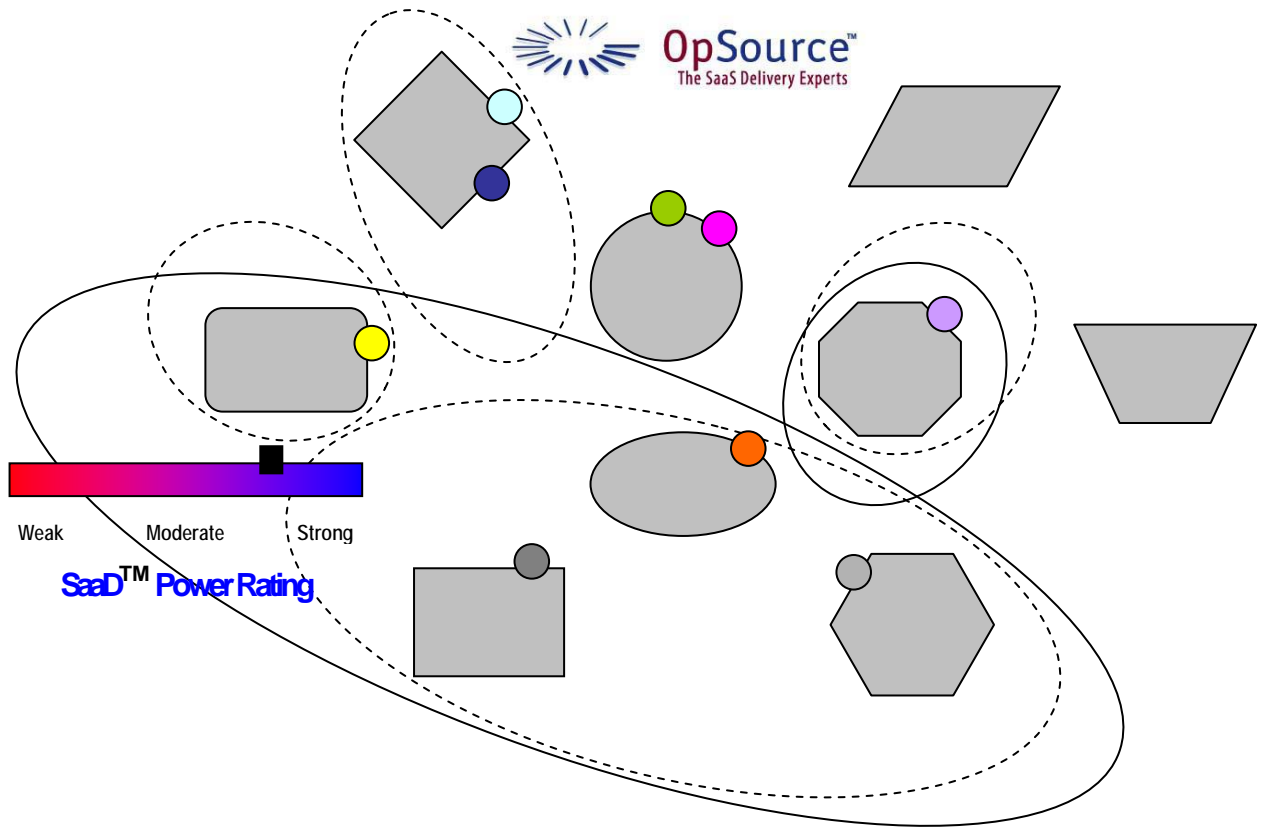


Figure 17. OpSource Business Model

Description of OpSource

Like USi, OpSource is a hosting company, a consulting company, and an outsourcing services company. Unlike USi, it is also a platform.

USi customers are ISV SaaS startups, ISVs transitioning to SaaS and existing SaaS providers. USi's hosting services range from collocation to application management to virtual private networks (VPN).

On-Demand 2.0 is the name of OpSource's platform. Its capabilities include billing and

provisioning, usage reports, level 1 end user support, a systems oriented architecture for on demand application development, and complete data and systems management.⁵⁸

OpSource provides customers an API for integration of their on demand applications with the platform. Customers can market their services on an online marketplace on the platform called the OpSource Service Bus.

⁵⁸ See OpSource Data Sheet "OpSource On-Demand 2.0 Platform" 06/23/07.

USi's customers rebrand the On-Demand 2.0 platform services as part of their on demand offering.

The caveat is that most of On-Demand 2.0's features come from third party providers. Application development is actually a partnership with Progress Software. Billing, service analytics and the enterprise service bus are provided by third parties Visual Mining, Aria Systems and MuleSource respectively.⁵⁹

ISV customers enter into an OpSource Services Agreement. The Services Agreement sets fees on the basis of number of transactions, clicks, ads, seats, or users, which OpSource calls Success Based Pricing.

Besides selling its hosting and On-Demand 2.0 platform services to ISVs, OpSource's most distinguishing feature from the other SaaS companies in this White Paper is that OpSource is a certified hosting facility for Salesforce.com AppExchange and WebEx Connect ISVs. The On-Demand 2.0 platform, according to OpSource, speeds approval of applications for AppExchange by 33% by providing a business infrastructure and mashup capability.⁶⁰ WebEx Connect ISVs use the On-Demand 2.0 platform for hosting and infrastructure services.⁶¹

⁵⁹ See ZDNet Phil Wainwright Blog "SaaS infrastructure, as a service" 09/22/07.

⁶⁰ See OpSource Press Release "OpSource Partners With Salesforce.com to Enable Salesforce.com Partners" 09/12/05; OpSource Data Sheet "OpSource OnDemand Delivers for Salesforce.com AppExchange" 09/07.

⁶¹ See OpSource Press Release "OpSource Optimal On-Demand to Provide Service Delivery for Applications On New WebEx Connect" 09/26/06.

Lastly, with a consortium of partners called Business Partners, OpSource sells complimentary co-branded consulting services. Services include both SaaS business and technical enablement, marketed as SaaSTrack, to ISVs. OpSource also sells outsourcing of legacy system management to end users. Scio Consulting and OnDemand Solutions are two such partners.⁶²

OpSource owns one data center in Denver and collocates at an Equinix facility in Virginia.⁶³ Data centers are served by multiple Tier 1 network providers terminated on OpSource's carrier grade network, provided through Qwest iQ Networking network services.⁶⁴ Compliance with PCI, SAS70II, HIPPA and Gramm-Leach-Bliley; and security and data backup are emphasized.

OpSource's SLA is 100% uptime for servers and data center operations. According to OpSource, its data centers have been measured as first class by Uptime Institute.

⁶² See OpSource Press Release "OpSource Partners with Scio Consulting to Accelerate Adoption of SaaS Delivery Model by Software Companies" 07/30/07; OpSource Press Release "OpSource and OnDemand Solutions Accelerate Growth of SaaS Market" 10/16/07.

⁶³ See OpSource Press Release "OpSource Optimal On-Demand to Provide Service Delivery for Applications On New WebEx Connect" 09/26/06.

⁶⁴ See OpSource Press Release "Qwest Signs New Agreement with Leading Software On Demand Company" 09/06/06.

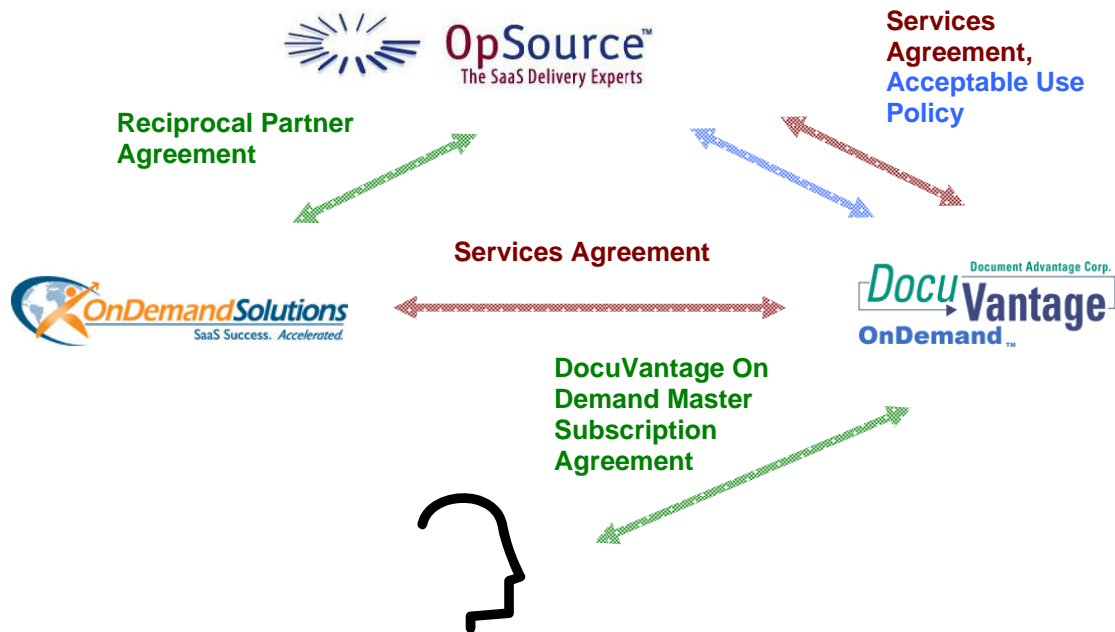


Figure 18. OpSource Contract Arrangement for ISV Rebranding of Platform and Consulting Services Partnership

Analysis of OpSource

OpSource might be described as a lesser USi but with a white label SaaS platform and SaaS enablement services.

Whereas the overall orientation of USi's business model is around pure hosting of software applications and legacy customer systems, the orientation of OpSource is around providing facilities, technical and business operations, application development services and customer support designed for SaaS and directed at individual SaaS ISVs.

OpSource does not attempt to provide the Web 2.0 type entities in a SaaS solution, such as mashup capabilities and developer communities. Nor does the company attempt to house and market an ecosystem

of on demand services as part of its business. Instead OpSource focuses on providing tools and services for developing SaaS application code and for maintaining the hosted application.

If SaaS services are regarded as individual ISVs offering stand alone services, not as part of an ecosystem and not as mashups, the combination of OpSource and the ISV is a highly aggregated SaaS business model.

The caveat, as mentioned above, is OpSource's seeming heavy dependence on partners to provide its SaaS platform and enablement services. Using third party technologies is an unavoidable fact of life for most IT solutions. Judging whether OpSource's partnering is a disaggregating practice depends on the details of how it is done.

The important discussion to be had about OpSource is its status as certified hosting platform for Salesforce and WebEx, not just because the two companies are the biggest and best regarded SaaS platforms and ecosystems, but because of the business model it portends. The answer to SaaS working for enterprise customers may look something like the partnerships between OpSource and Salesforce and WebEx.

The infrastructure—technical support and business operations—required by a SaaS solution is a complex and expensive undertaking in itself, especially for ISVs. For enterprise customers, infrastructure services are considered critical attributes for any and all IT vendors and are heavily scrutinized.

If one wanted to boil down the SaaS™ Business Model diagram used throughout our discussions of SaaS companies to its basic ingredients, it would be comprised of 4 major entities: I. Hosting Facilities and Network Services; II. Infrastructure Systems and Services; III. Web Services Applications; and IV. Customer Sales and Services.

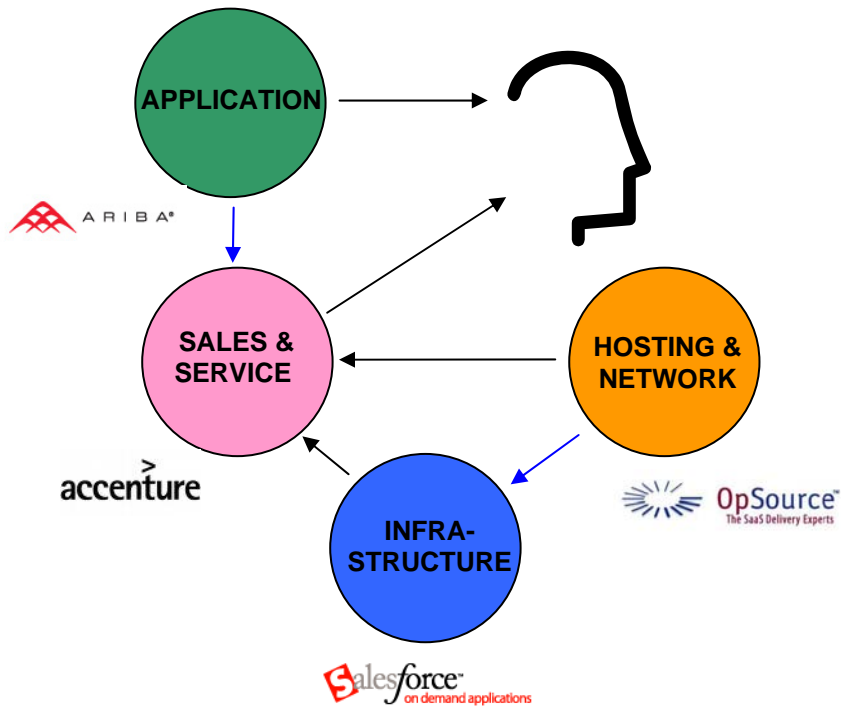


Figure 19. Possible Future Enterprise SaaS Model

In this reduced model, one company would specialize in hosting and network operations, i.e., OpSource. Another company, i.e., Salesforce, would provide and maintain all infrastructure systems and maintenance. One company would enter into agreements with customers and provide all customer facing services, i.e., management consultants.

The customer provider company might also resell Web services-based software provided by separate OEMs companies, or the OEMs would grant service rights directly to customers under separate agreement.

The hosting company and the infrastructure company would both be first tier subcontractors to the customer provider. Or the hosting and network company would be a subcontractor to the infrastructure provider, i.e., OpSource sub to Salesforce, which in turn would sub to the customer provider.

How OpSource's business model works at present can be seen in the Contract Arrangement diagram.

OpSource's contract arrangement is modestly aggregated in that it is simple. The consultancy shown in the diagram, OnDemand Solutions, contracts directly with the ISV for business and technology operations consulting that only indirectly benefit end users.

As has been discussed elsewhere in this White Paper, rebranding of the OnDemand 2.0 platform by ISV's, like any rebranding, is a disaggregation driver.

Although the favorability of quality of service terms is not in itself a determinant of disaggregation, the complete omission or exclusion of service levels can lead to contracting with additional providers to close gaps and reduce risk.

Both the OpSource Acceptable Use Policy and the ISV's customer contract, the DocuVantage OnDemand Master Subscription Agreement, deny any responsibility for customer data. The OpSource AUP states,

“OpSource makes no guarantee regarding, and assumes no liability for, the security and integrity of any data or information you store or transmit via the Services or the Internet...”⁶⁵

DocuVantage's Subscription Agreement says “DocuVantage makes no representation or warranty of any kind or nature with respect to the Service as relating to the Customer Data.”⁶⁶

⁶⁵ See OpSource Acceptable Use Policy, para. Compliance (Online).

⁶⁶ See DocuVantage OnDemand Master Subscription Agreement, para. 4. Account Information and Data (Online).

James River Consulting's Contract Solutions for SaaS™

Achieving Aggregation and Adaptation.

Return to the goals of aggregation mentioned at the beginning of this White Paper: to optimally reduce risk and increase the business value of the services received by the customer. Contracts are the means by which aggregation is achieved.

Contracts are also the means by which service providers meet customer demands. Enterprise customers expect to influence how services are delivered, even to the point that they will demand the service provider to alter its business model by creating new services and new service organizations, or to create a new business model by joining with other providers. Again, contracts are the means for doing this.

Each of the SaaS companies studied in this White Paper presents its own opportunities and challenges for achieving the aggregation and adaptation needed to sell SaaS to enterprise business.

James River Consulting has developed several methodologies for achieving aggregation and adaptation in SaaS. These methodologies can be implemented using document based contracts, online contracts, or both.

Flow Down.

Flow down is the method by which the US Government achieves aggregation in services contracts, although the Government does not refer to it as aggregation.

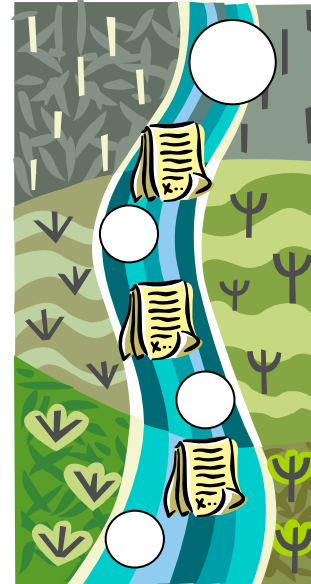


Figure 20. Flow Down Contracting Methodology

Key contract terms, called “flow down provisions” are required, by their own written terms, to be recreated by the contractor in all of its first tier subcontracts. Subcontractors in turn are required to flow down the terms to particular subcontractors of their own. Flow down is accompanied by contract management practices that ensure the flow down is maintained.

Flow down offers the advantage of making terms identical for all providers by mandating use of the provisions.

Knowing what terms to flow down, which service providers to flow down to, and how to manage flow down issues are addressed by the methodology.

Example: Hot Host, a hosting company that markets its data centers along with a

third party SaaS platform service called Platform Dive. Hot Host requires both the partner and the hosting customers to flow down a maximum SLA of 99.9%.

Hub and Spoke.

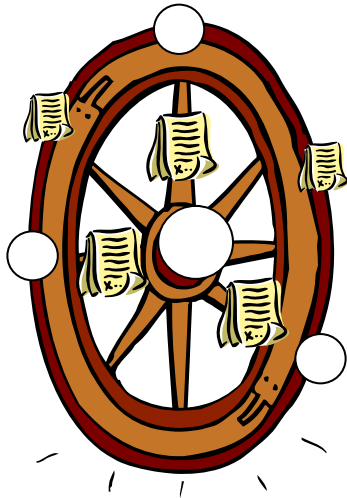


Figure 21. Hub and Spoke Contracting Methodology

Following the hub-and-spoke metaphor, this methodology establishes a scheme with either the customer or a prime provider at the hub, and providers as spokes.

Spoke providers sign their own individual contracts with the hub. Spoke providers may also sign wheel contracts with each other as dictated by either the hub and/or by the sub-providers' own judgment. These wheel contracts can be purely cooperative, meaning they define the relationship without service fees changing hands.

Hub and spoke's advantage is to place central control over all providers in the hands of the customer or prime provider, and yet limit contract management burden by allowing providers to deal with each other.

James River's methodology prescribes development and implementation of this scheme in the customer contract, and manages oversight of spoke and wheel contracts.

Example: Bombastic International Group (BIG) signs contracts with Hot Host and a network security scanning firm named Outer Armour. BIG will use Outer Armour to test Hot Host's security. Hot Host and Outer Armour have never done business together before. The two companies decide to make their own contract with one another to facilitate the scanning.

Multi-Partite.

Multi-national corporations (MNC) with numerous subsidiaries and affiliates employ multi-partite contract vehicles for procurement and business partnerships.

The same concept can also be used on the service provider side. A customer facing prime provider enters into agreement with the customer; the agreement contains a general service definition. Other service providers needed to meet the service definition are brought under the same contract by addendum. The providers are answerable to both the customer and the prime provider.

The advantage of a multi-partite approach is to create direct relationships between the customer and all providers, co-manage providers with the prime provider, streamline contract management, and allow for initiating work in situations where providers have not been identified and apportioned work.

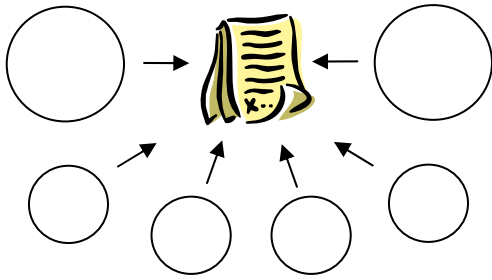


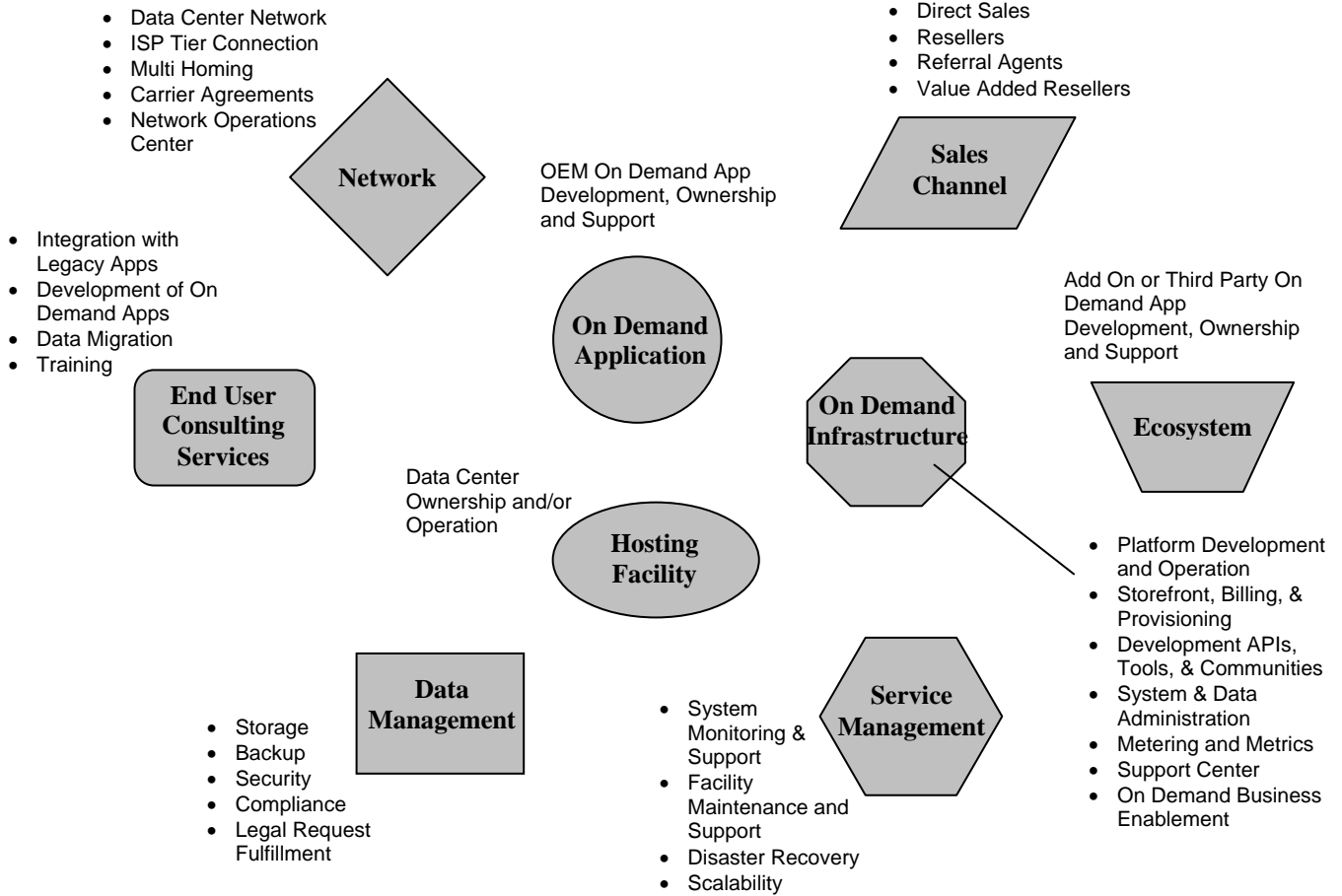
Figure 22. Multi-Partite Contracting Methodology

The multi-partite methodology guides the parties in properly structuring the rights and responsibilities owed between the parties.

Example: BIG and management consultancy AllOver LLP sign a contract to implement third party SaaS services. RFPs are put out to SaaS companies describing the project. The RFP advises the companies that the services contracts must be three way between the company, BIG and AllOver, to ensure proper project management.

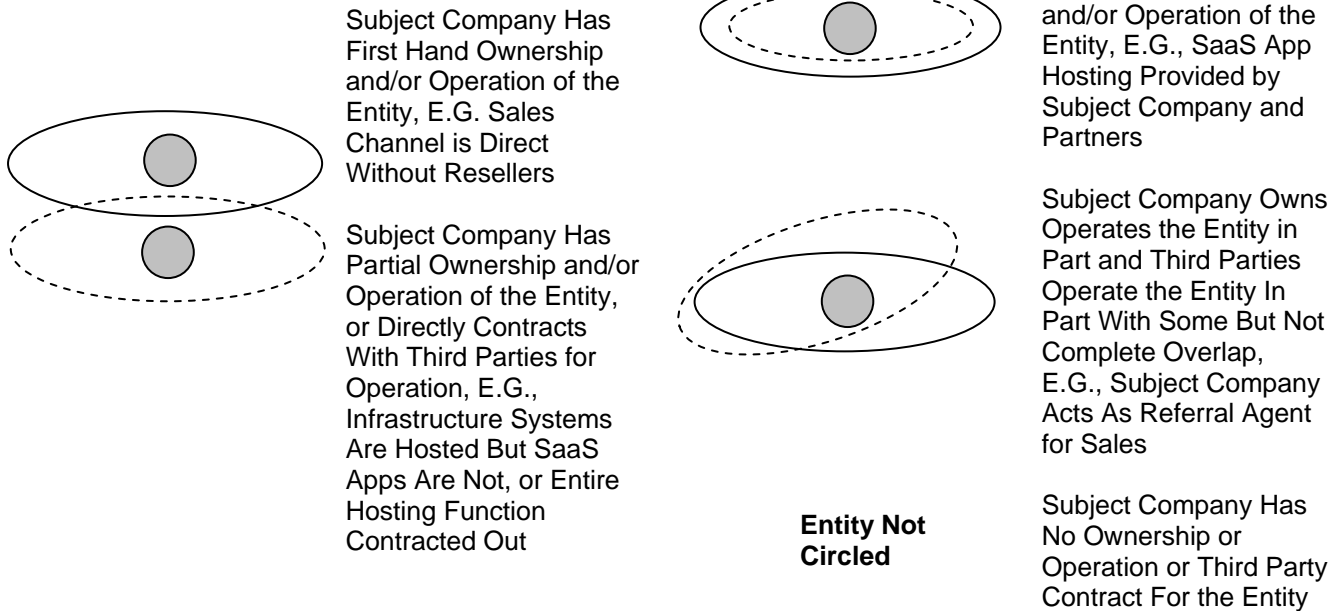
Appendix A

SaaS™ Entities















Appendix A

SaaS™ Service Circles














Appendix A

SaaS™ Contract Points

- | | | | |
|--|---|---|--|
|  | Subscription Contract Between Subject Company and End User |  | Solution Contract Between Subject Company and 3 rd Party SaaS Provider or Developer (incl. Ecosystem) |
|  | Subscription Contract Between Reseller and End User |  | Solution Contract Between 3 rd Party SaaS Providers and Developers (incl. Ecosystem) and Each Other |
|  | Subscription Contract Between 3 rd Party SaaS Provider or Developer (incl. Ecosystem) and End User |  | Infrastructure Contract Between Subject Company or 3 rd Party SaaS Provider and Infrastructure Provider |
|  | Reseller Contract Between Subject Company and Any 3 rd Party (Service Provider, SaaS Provider, Developer) |  | Network Services Contract Between Subject Company Owned and/or Operated Hosting Facility and ISP or Carrier |
|  | Hosting Contract Between Subject Company and Hosting Facility |  | Network Services Contract Between Subject Company Contracted Hosting Facility and ISP or Carrier |
|  | Hosting Contract Between 3 rd Party SaaS Provider (incl. Ecosystem) and Hosting Facility (incl. Subject Company) |  | Network Services Contract Between SaaS App Provider Contracted Hosting Facility and ISP or Carrier |

SaaS™ Contract Arrangements

- | | | | |
|---|--|---|--|
|  | Express Agreement, Has Been Reviewed |  | Network Services Contract Between End User and ISP or Carrier |
|  | Governing Terms & Conditions Posted On Service, Have Been Reviewed |  | Consulting Services Contract Between Subject Company and Third Party Consultancy |
|  | Other Governing Terms & Conditions Posted On Service, Have Been Reviewed |  | Consulting Services Contract Between Subject Company or Third Party Consultancy and End User (Assumed) |
|  | Implied Agreement Arising From Circumstances or From Other Terms |  | Licenses and Services Contracts for Data Management Provision (Assumed) |
|  | Express Agreement Referenced But Not Obtained |  | Licenses and Services Contracts for Service Management Provision (Assumed) |
|  | End User | | |

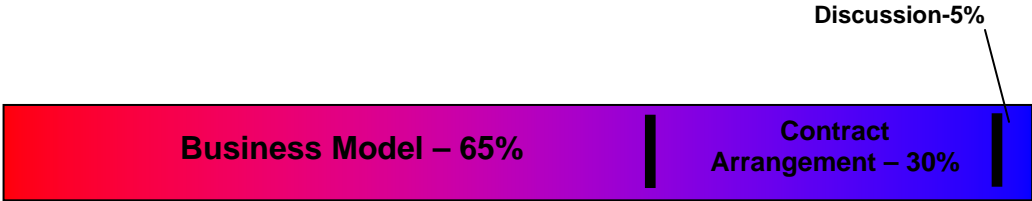
SaaS Power Rating™

The SaaS Power Rating™ indicates a subject SaaS company's capability to deliver SaaS to end users of an enterprise business in an aggregated fashion. The Power Rating is the sum of all research conducted on the subject company and third parties, presented in diagrams and portrayed in the narrative discussions for each company.

The amount of aggregation shown in the Business Model accounts for 65% of the Power Rating. Within the Business Model, more weight is given to the Hosting Facility, On Demand Application, On Demand Infrastructure, Sales Channel and Network entities than the other entities.

The aggregation represented in the Contract Arrangements diagram accounts for 30% of the Power Rating. The weight given Contract Arrangements is intentionally restricted due to the uneven availability of contracts among the subject companies and the sensitivity of the data to change.

All other research data affecting aggregation is included in the narrative discussion of the subject company and accounts for the remaining 5% of the Power Rating.





James River Consulting

Better IT Contracting

www.jamesriverllc.com

**8 Goldenrod Drive, Medway, MA 02053 703.850.7061-Mobile
info@jamesriverllc.com jamesriverconsulting@comcast.net**



ABOUT THE AUTHOR

Eric Esperne, JD, CPCM, is president of James River Consulting based in Medway, Mass., a new consulting company specializing exclusively in IT and business services contract development, negotiation and management. Prior to creating James River, Eric served as a senior in-house counsel, general counsel, director of contracts, senior strategic software procurement leader and Internet product development leader for multinational telecoms and government and commercial IT vendors in and around Washington, D.C. He can be contacted at eesperne@jamesriverllc.com or 703.850.7061.