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Beyond EDI: An Agent's Role in the Cloud

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Abstract: This year has garnered ample conversation and controversy regarding new cloud-based ILS systems and their value to libraries. The emphasis of these discussions has been on integrating cloud-based systems with database services/aggregators and libraries, but there has been very little mention of the Agent or Information Solutions Provider (ISP). Is there a role for the ISP in this new medium? If so, what is it? The presenters, librarian and vendors both, will highlight thoughts and theories on an integrated approach among ILS vendors, ISPs and librarians. Experienced in working with web-based e-procurement systems for corporate libraries, ISPs are in a unique position to offer streamlined, real-time integration with cloud-based services. These services (the silver linings) go beyond EDI to include exchanging licensing information, pricing, purchase orders and renewals, just to name a few. Information Solution Providers are already comfortable in the cloud and are dedicated to playing a vital role in the supply of information.

Presentation by Christine M. Stamison

Preface

The compelling impetus for putting this presentation together was to convey to the greater audience that Information Solution Providers (ISPs) are already working in the cloud and have been for a great while. ISPs have been offering their cloud-based database to customers for years and, about 10 years ago, began integrating with libraries that use cloud-based business systems like Oracle, Ariba and SAP. With many ILS systems beginning to move to cloud-based systems, I felt it was an opportune time to start a discussion of how ISPs would like to integrate with these new ILS systems.

Introduction to the Cloud

One of the most popular topics in the information industry this year has been "The Cloud". The Cloud has been touted as the panacea for whatever ails us and all members of the information chain are developing or investing in these services. The Cloud is a metaphor for the internet and is based on abstract diagrams that depict networks as clouds. The cloud is then the demarcation point between the responsibility of the provider and that of the user. The term "Cloud Computing" then extended to servers and infrastructure.

Cloud Computing

In today's parlance, cloud computing is the delivery of computing as a service rather than a product. Normally cloud computing services are sold on de-mand for specific time periods and the end user can buy as little or as much as they wish. In other words, it is a more economical use of computer services. The service itself is fully managed by the provider and the consumer only requires a computer and internet connection. Cloud Computing promotes shared collaboration and a greener environment while reducing the need for expensive equipment.

There are many types of cloud computing services but the three most popular are: Software as a Solution (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS). SaaS is the most well-known application of cloud computing. In this model, the software is built by a service provider but permits limited configuration capability to fit the specific needs of the end user. However, the end user cannot change or modify the software. For this service, the user pays a monthly or annual fee. Some examples include Dropbox and iCloud services which back-up files or data on a cloud.

PaaS is an outgrowth of SaaS and offers an entire platform (operating system, server, relational database, apps) to clients for various purposes. As with SaaS, the platform is managed and kept stable and current by the service provider. The platform can be accessed by both in-house and remote staff. This enables all members throughout an organization to view, edit and share data no matter their location. Each user has the option to utilize only the services they need and these services tend to be very cus-

tomizable. Some examples of PaaS are salesfore.com, Windows Azure and Oracle.

Finally, IaaS is basically an infrastructure on demand service in which one outsources platforms, storage, servers, network components, etc. The service provider owns the equipment and is responsible for its running and maintenance.

Advantage and Disadvantage of Cloud Services

One of the major advantages of using a cloud service in this economic downturn is cost reduction. In the cloud, organizations do not have to invest in or maintain this technological infrastructure. This translates into a considerable cost savings. Organizations can allocate funds saved on hardware to fill other pressing needs. Additionally, cloud-based environments promote greater collaboration among colleagues especially when they include many departments, offices or countries. Another benefit to cloud-based service is the promotion of a greener environment, something very important to institutions that have a mandate to "go green".

While the benefits are many, there are some disadvantages to cloud services. Most notably, the organization loses local control and becomes dependent on a third party. While these third parties often allow for customization it may not be designed exactly to a customer's specifications. An organization will need to determine their "must have" components as well as their negotiables while maintaining business flexibility as integration often uncovers required deviation from the initial strategy. One should also consider the cost structure of a service as it may change radically once the initial contract is up. All of these factors should be examined before entering into a cloud-based service.

Presentation by Anne Campbell

ISPs Can Feed the Cloud

As cloud-based library systems continuously emerge and evolve, the value of the ISP also continues to grow. By nature, ISPs constantly gather and maintain a large amount of data: extensive journal and e-book catalogs, updated publisher pricing, updated publisher license data, and usage statistics to name a few. ISPs promote integration for libraries by administering business transactions on a daily basis

such as processing orders, claims, invoices and license requests to publishers. ISPs also provide usage statistics and other types of metadata for library ERM systems.

Similarly, ISPs assist publishers by electronically sending and receiving title prices, usage statistics, orders/renewals, claims, license data and publication schedules. As a result of this integration, with both libraries and publishers, ISPs are uniquely qualified with the pre-existing ability to feed this information into cloud-based library systems.

Aside from transmitting information between publishers and libraries, ISPs have established longtime relationships with libraries, publishers and vendor automation systems (ILS systems). In this new scenario the ISP will be able to feed information from these various contributors into the cloud-based system where it can be can be accessed by multiple users, serving multiple purposes, therefore promoting collaboration and increasing efficiency.

As members of standards committees and usage groups such as ICEDIS, NISO and EDItEUR, ISPs are able to remain current and active in industry development. Furthermore, they actively partner with their customers, publishers and ILS vendors in the development and testing of system integration. At Swets, we also maintain a Customer Advisory Board that advises us on our strategy.

ISPs are Already Working in the Cloud

ISPs understand the investment of customers and publishers to purchase and maintain their own systems. As a result, they make it a priority to implement system integration with their customers and partner with publishers to enable electronic business transactions and data sharing. Already comfortable in the cloud, some ISPs have offered "Software as a Solution" services such as Discovery and Federated Search, and web-based usage statistics services that include impact factor and cost per use. Some ISPs also offer web-based renewal services for journals and, of course, offer every customer a personalized website for online account management.

The Concept of Punch-Out

ISPs are already active in corporate supply chain communities. Using xCBL (a set of XML business

documents), complete system integration with e-procurement systems, such as Ariba and SAP, have offered customers the convenience of shopping catalogs from within their own e-procurement system. Within their system a customer can create a requisition, follow internal approval processes, send final purchase orders, and either receive an electronic invoice or use a purchasing card for final payment. This process is called "catalog punch-out/round trip". With catalog punch-out the customer enters a vendor's catalog from their e-procurement system, browses the catalog, and places items in a shopping cart and returns to their e-procurement system to produce the requisition and final purchase order. This creates a smooth customer experience using system integration.

If cloud-based library systems also evolve to offer a similar "catalog punch-out/round trip" experiences, system integration can offer efficiencies and reduce manual entry from the ILS system, to the ISP, to the publisher, and finally to financial systems.

As ILS systems evolve to cloud-based systems, ISPs are in a strategic position to further integrate systems to streamline the library workflow. Information Solution Providers, like Swets, are ready, willing and able to evolve in and beyond the cloud in order to provide the right tools to improve the customer experience.