

SEEDING THE CLOUD

TREVOR HERITAGE discusses the value of hosted informatics in life sciences R&D.

Are Symyx's life sciences customers ready for cloud computing?

Trevor Heritage. Industry as a whole is moving very rapidly to cloud computing – supplementing, and in some cases even replacing traditional, license-based software with subscription-based, on-demand Software-as-a-Service (SaaS) offerings. This new approach lets companies focus on their core competencies, on operational agility and cost savings. I see life sciences organizations making a similar rapid shift to what I call 'hosted informatics'. In this paradigm, high-value scientific information and applications are hosted online and made available to many customers in a multi-tenant environment. It's a pay-as-you-go approach that offers overall cost savings, easier deployment, easier access and improved flexibility in managing internal operations, partners and contract research organizations (CROs). Hosted informatics is especially helpful in the biopharma sector where mergers and acquisitions are a part of every-day life. It can take months to sort out the network deployments necessary to integrate globally dispersed teams into a newly merged organization. With hosted informatics, all you need is an internet connection and a password for instant access to shared scientific information, tools and workflows.

What is driving the traditionally conservative life sciences industry into the cloud?

TH. Labs today generate enormous amounts of information. Turning experimental results into timely, actionable information that drives better decisions, more effective workflows and more successful pipelines is a huge challenge. Today's emphasis on outsourcing and global project teams makes information-driven R&D all the more daunting. Outsourcing to CROs is decentralizing pharma R&D operations, distributing

them across globally dispersed, virtual teams that combine specialty know-how and expertise under a single umbrella. These virtual organizations require sharable software, on-demand content in the context of scientific workflows and effective collaboration tools that are always 'on', and easy to switch off. The bottom line is that R&D labs today are searching for ways to do more with less, and the demand for assured ROI has never been greater. Lower-cost, faster data processing in the cloud can address these baseline customer concerns.

What are the barriers to adopting a hosted informatics solution?

TH. Data security, IP protection, reliability and customizability are concerns raised by some, but uneasiness around these issues is fast disappearing as people become more familiar and comfortable with hosted solutions. Safe, secure online banking and document storage are commonplace today, and the success of ventures like Amazon, Google Docs and Salesforce.com is prompting pharma to investigate and increasingly invest in cloud solutions. In fact, pharma has been using cost-saving, hosted solutions in its clinical and sales/marketing activities for some time now. Suppliers like Symyx who offer hosted solutions are not challenging pharma to do something they don't want to do. Rather, we're partnering with pharma, providing a time- and cost-saving alternative approach to more effective laboratory workflows and outsourcing.

What kinds of hosted informatics applications do you see pharma adopting?

TH. Our customers are interested in deploying hosted electronic lab notebooks along with cloud-based chemical registration, chemical inventory management, work order management and R&D data management services augmented by project dashboards with real-time analytics. I envision a secure, hosted informatics environment where pharmaceutical, biotechnology and chemical companies, their partners and CROs, can collaborate effectively and with reduced overhead and costs. For example, a hosted chemical registration service can significantly reduce the cost-per-compound-registered while also lowering the total cost of ownership of a chemical registration system. The hosted system also streamlines outsourcing by enabling R&D organizations to turn on and turn off third-party collaborators quickly and efficiently. For pharmas concerned by the one-size-fits-all reputation of the SaaS model, hosted informatics solutions actually come in a variety of shapes and sizes, ranging from remote management of a preconfigured server that sits in the customer's environment to a completely hosted solution accessed via a web browser. Flexible deployment options like this improve support for distributed project teams, reduce installation costs, accelerate start-up times and provide quick pay-back periods for investments in hosted informatics solutions. The convergence of information-driven R&D and hosted informatics in the cloud is an exciting prospect. ■



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