

BioIT focuses on merger of software and biology

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A strong base of life science, biology and health providers exist in Oregon, including universities, research health institutions, large hospitals and a number of life science-related companies.

Oregon also has a great depth of software experience, and a new concentration of software companies is evolving that supports the life sciences industry. This cluster is known as BioIT because it merges life science and information and software technology.

During the past few years, a growing number of local software companies have formed or been revitalized through relationships with local and national life sciences institutions and companies.

"What's emerged is a group of companies who focus on the marriage between software and biology, either in life sciences or in nonhuman sciences," said Danielle Forsyth, co-founder and vice president at Thetus Corp. "This group focuses on software relating to the data associated with life sciences. By working closely with local institutions, we have been able to develop software and systems that solve difficult bio or life sciences problems."

A core group of companies such as Webridge, Kryptiq, Verinform, Thetus and Lifecom Health Systems are developing customized software to meet special needs in the life sciences industry or to meet federal administrative or protocol compliance requirements.

Most of the software firms have close relationships with Oregon Health & Science University, OHSU's OGI School of Science & Engineering, and hospi-

tals such as Providence Medical Center and Kaiser Permanente. Several of the companies are also working with Oregon State University and the University of Oregon in areas such as neuroinformatics.

There's an interesting convergence of practice and technology-driven expertise in the health information field around Portland, said David Maier, a professor at the Data and Object Technology Lab at OGI.

"We now see technology-driven companies such as Webridge and Intel taking an interest in health and life sciences applications as a growth market in the coming decade," he said.

"The new wrinkle I see is companies like Thetus that are moving upstream from health care to medical and basic biological research. Life science research has become immensely more quantitative of late, and BioIT is now becoming a main driver of scientific information systems, where it has mainly been physics, astronomy and earth sciences in the past."

The emerging BioIT companies indicate that having access to research and life sciences institutions allowed them to discuss concepts, refine requirements, test software and receive feedback that will help them develop software that can eventually be used in broader life science markets.

SOFTWARE

■ Thetus software helps corporations and research institutions take nontext data originating from sensors, satellites, cameras and other devices and lets them acquire, classify, process, store, search

and publish the data. Thetus technology has been used at OSU to take incoming data requests from satellite receivers and other devices to process, track and search satellite data.

■ Webridge is a 7-year-old venture-backed company headquartered in Beaverton. It develops and installs enterprise extranet portal applications that allow organizations to securely share content and business processes with their employees and partners over the Internet.

■ Lifecom Health Systems, founded by Dr. Stephen Datena, has been developing a system for automated diagnosis of medical problems for four years and has had a prototype system running for 18 months. The diagnostic software, named PRNpro, uses proprietary knowledge processing algorithms and can produce present illness reports, diagnostic notes and a complete diagnosis based on information from a variety of sources.

"We are to the point where we can demonstrate the knowledge engine, its reasoning capabilities and how it reviews massive amounts of data to arrive at a diagnosis," said Jim Moon, Lifecom CEO.

Lifecom is now seeking financial backing to launch a clinical evaluation and bring the product to market.

■ Kryptiq Corp.'s products integrate electronic medical records and management systems and automatically updates patients' online interactions in real-time, and helps insurance companies manage the requirements in any given provider contract.

■ Verinform Systems Inc. is a 3-year old provider of enterprise software

applications for academic hospitals, clinical environments and governmental public health agencies. Verinform provides management of medical specialty training programs to address accreditation and fiscal reporting requirements.

Currently, the BioIT software companies have created an informal grassroots organization whose members meet to talk about the evolving industry and exchange ideas. The BioIT group wants to create awareness at the federal funding level that the BioIT industry exists in Oregon and would also like to be recognized by the state as an emerging business cluster.

They hope this recognition would result in additional funding, technology transfer opportunities and development of appropriate policies at the state and city level.

The health care industry is one of the fastest-growing sectors of the economy. Funding from the National Institutes of Health for research has increased 100 percent over the past five years," said Gary Whitney, Webridge vice president of business development.

"Innovation Celebration," sponsored by the Portland Business Alliance, is set for April 29. Molly Moore, Portland Business Alliance new economy manager, said the event will be held quarterly.

"We plan to provide exposure for emerging industry clusters such as the BioIT sector, while at the same time provide a networking venue for up-and-coming young professionals," she said.

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