ClinGenuity

Logicalis Prescribes Cisco UCS for ClinGenuity's Innovative Artificial Intelligence System for Clinical Research in the Pharmaceutical Industry.

A start-up software company in the clinical research niche of the healthcare market, ClinGenuity of Cincinnati has developed a software system that draws on artificial intelligence, natural language processing, and statistical modeling to process literally years' worth of clinical data and analysis and generate detailed reports--formatted for the FDA--in hours instead of months.

By enabling the rapid processing of clinical research reports, ClinGenuity's software dramatically cuts the time it takes to get effective drugs to market that can alleviate suffering and save lives.

Time is also money—especially in the pharmaceutical industry. According to the 2011 Tufts Center for the Study of Drug Development Outlook Report, the average cost of bringing a new pharmaceutical to market is $1.3 billion and takes approximately 15 years. With 20 years of patent protection, that leaves only 5 years to recoup an investment, and turn a profit. Pharmaceuticals generate $300 million to $1 billion in revenue a year. That means, each day saved in development is worth between $1 million to $5 million in revenue.

During his years at Searle/Monsanto, ClinGenuity co-founder and clinical advisor Dr. Steve Geis was responsible for the clinical development of Celebrex, an arthritis drug which generated nearly $2 billion in revenue during its first year of commercialization.

ClinGenuity estimates it can save up to four weeks per clinical study report. Considering there are an average of five studies included in a marketing application, that is a savings of 20 weeks or as much a $500 million in revenue.

With that much pressure on being able to facilitate the production of clinical reports, ClinGenuity turned to Logicalis to help develop a compute environment that was not only fast and reliable enough to handle the processing required, but also scalable enough to meet the expected demand for its unique service.

A Black Box Solution

A serial entrepreneur who had worked with Logicalis at other start ups, ClinGenuity CTO and co-founder Mick Kowitz contacted Logicalis account exec Scott Meyer to inquire about a price of high-performing servers that were capable of both high speed processing and lots of memory.

"There's some fairly complex stuff going on here," Kowitz explains. ClinGenuity software is capable of applying its artificial intelligence to the details of the 500 to 600 pages worth of Word documents, spreadsheets pdfs and other file formats that provide the raw material for a clinical research study. The system is smart enough to know how to take a calculation, like an efficacy survival rate that it finds in a Word document, for example, and apply it in a statistical modeling section."

As the system works through the documents, Kowitz says, "There are redundant queues running all over the place. We needed a system that could handle the processing demands and still be scalable enough to allow us to spin up virtual servers and grow very cleanly and evenly in a cookie-cutter fashion. I didn't want to have racks and racks of servers."

Kowitz says he was surprised at first when Meyer recommended Unified Computing System (UCS) servers from Cisco. The more he investigated the capabilities of the Cisco system Meyer proposed, however, the more convinced he was that Cisco was the best choice.

"The best part is, I didn't have to do a lot," Kowitz says. "I explained what we wanted to accomplish, told them what OSs I would need, how much memory, and whether something was CPU intensive or disk intensive; and they did the rest.

ClinGenuity is a Microsoft shop with everything designed in C++, C# and SQL Server, so Logicalis recommended two Cisco UCS servers running Hyper V and Windows 2008. "They even made sure I had the right RAID card for the boxes," Kowitz says. "I could do it, "he adds, "but I don't have the time to deal with that level of detail. And, as someone who knows enough to do it myself, I definitely wouldn't go to Dell and trust them to do it right. I know I can trust Logicalis and that they are going to get me the configuration I need, and not kill me on price. That's peace of mind. There's real value in that for me."

"I'm just like my customers," Kowitz adds. "They want a black box solution. They don't care how it happens. They just want me to get them what they need in the timeframe they need it. The beauty of this was Logicalis was a black box solution for me. I told Scott what I needed. He came back a couple of days later to clarify some things, and the next day I had a quote. Just like my customers want a black box solution; well, that's what Logicalis did for me."

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> **Mick Kowitz, CTO and Co-Founder, ClinGenuity**