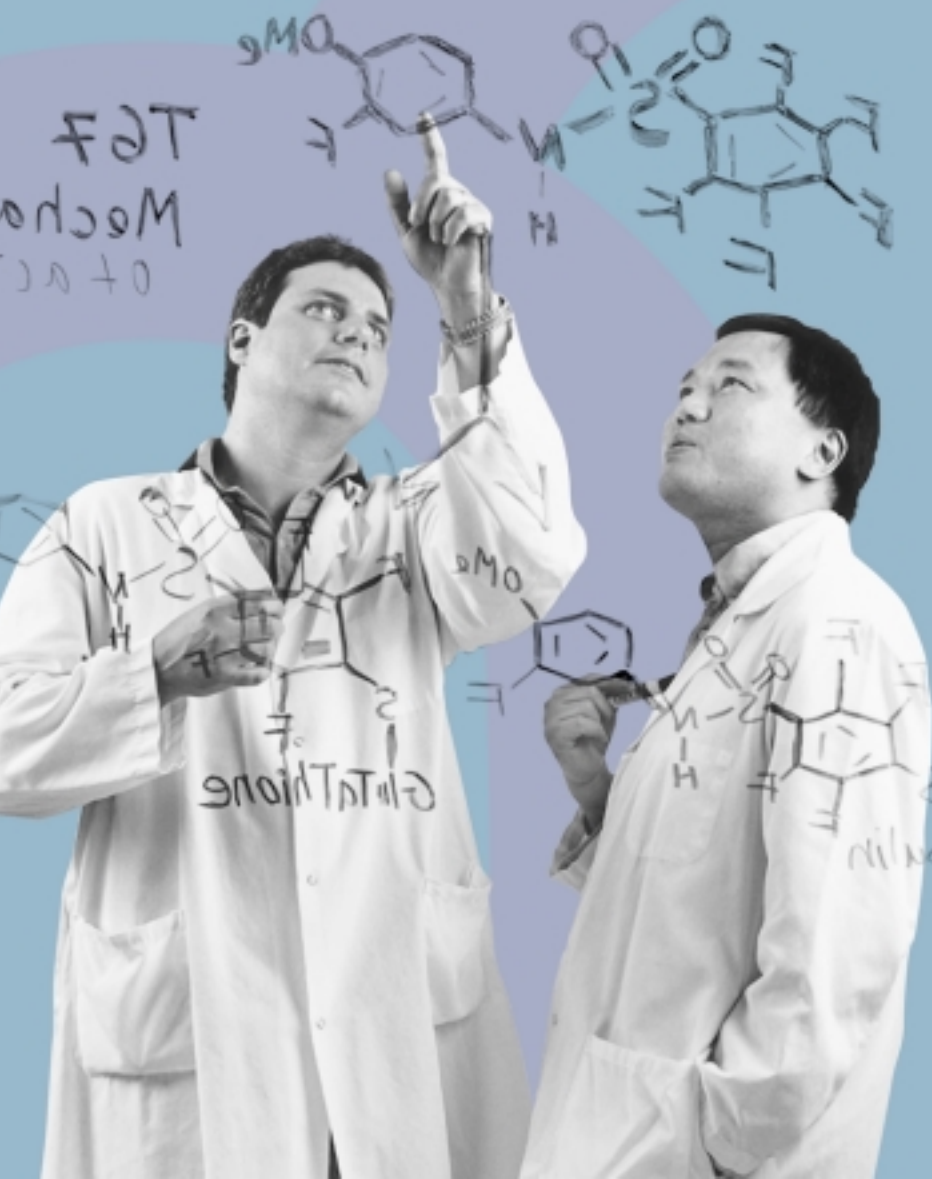


SGI™ Embedded Support Partner: Rescuing a Weekend's Processing

"ESP does something for my peace of mind, and I can spend my time doing other things that are more challenging."

—Mercedes Broening, System Administrator, Tularik

Drs. Julio Medina and Bei Shanwere worked as part of a team to discover and develop T67, an anti-cancer compound now in Phase II of clinical studies. In 2000, Medina and Shanwere received the Tularik Distinguished Employee Award, which is awarded to employees whose efforts significantly advance a drug candidate toward commercialization.



Due to a unique circumstance in July 2001, on Friday the 13th, the three IT staff members directly responsible for the SGI™ Origin™ 3400 system at Tularik Inc. were either getting married, traveling in Britain on business, or on vacation. None of them was present or on the way to work at 7:30 a.m. when the SGI Origin 3400 server went down and rebooted itself. Under normal circumstances, the problem wouldn't have even been noticed until the following Monday, and conceivably not even then, because the computation was scheduled to finish days later and the system appeared to be operating normally.

SGI Embedded Support Partner [ESP], an integral part of the SGI Electronic Support environment, was monitoring the system's performance and availability 7x24. When the failure occurred, ESP took action instantly. It sent an alert to the system console at Tularik and an e-mail to SGI Global Services, where the incident was logged and a service case created.

At the same time, ESP automatically paged SGI Systems Support Engineer Daniel Kim, who was on his way to work. Kim immediately left voice-mail messages at Tularik for System Administrator Mercedes Broening and Scott Starry, project manager for scientific computing.

"I wasn't in the office. I didn't know the system had gone down," says Starry. "The first thing I knew was that Daniel had left me a message saying, 'I've got the parts and I'll be there this morning.' That was really the nice thing about it from our standpoint. SGI was already alerted and things were moving before we even knew there was a problem."

Tularik: Compute-Intensive Drug Development

Tularik is a pioneering company with a clear focus: to discover molecules that affect the way genes express themselves in the creation of proteins. As of September 30, 2001, Tularik held more than 70 issued U.S. patents and more than 80 pending U.S. patent applications.

The search for a useful, marketable drug is long and costly. Early in the discovery process, Tularik scientists run massive databases of hundreds of thousands of

Tularik Inc.
Location: San Francisco, CA
Business: Creating drugs that regulate gene expression
Employees: 300
SGI™ system: 32-processor SGI Origin 3400
Application: Computational chemistry
Web site: www.tularik.com

SGI Embedded Support Partner [ESP]

ESP, part of SGI Electronic Support, is an embedded feature of the IRIX® operating system. ESP provides all the following services:

- 24x7 monitoring of system performance and availability
- Customized alert notification, including e-mails and pages, of critical system events
- Access to system performance, availability, and configuration reports in real time
- Proactive notification of SGI Global Services, which can trigger automatic support functions such as service case logging, Systems Support Engineer notification, and a database search of more than 7,000 problems and their solutions

www.sgi.com/support/es

small-molecule models against models of various protein targets whose function Tularik wants to modify. The outcome of the run, hopefully, is a tidy list of molecules that can bind to the biopolymer's structure and may produce a corrective or therapeutic effect that ultimately can be commercialized. The stakes: billions of dollars in sales.

Tularik uses a 32-processor SGI Origin 3400 system for these searches. Each run, which can take up to two weeks of continuous computation, is part of a scheduled research project with a specific goal. Any loss of time or computing cycles can dramatically delay an entire research project that might produce a breakthrough discovery.

To maximize system availability, Tularik and its SGI support engineer decided to enable SGI Electronic Support on the SGI Origin 3400 system. The SGI Electronic Support environment, which is included in Tularik's SGI FullCare support package, includes ESP, a proactive monitoring and reporting utility. That decision was to pay off handsomely on that July morning.

Rapid Turnaround: Pinpointing and Solving the Problem

With ESP's description of the problem in hand, Kim arrived at his office and opened ESP's online reports to analyze Tularik's problem. He quickly isolated the source of the failure—a single malfunctioning connector pin—and ordered a replacement. Within four hours from the time he was paged he was able to get his hands on the part, reach an alternative contact at Tularik, drive to the site, and make the repair. "ESP allowed Daniel to quickly pinpoint the problem and replace the part," says Broening. "We haven't had a system crash since."

"Electronic Support automatically captured the error message, notified the SGI support engineers and the client, created the case, and gave me all the diagnostic data I needed to pinpoint the problem before I even started to look for it," says Kim. "It saves me a lot of administrative work and lets me quickly analyze and solve customers' problems. Before, two or three hours would pass before I knew a machine had gone down, and problem identification and information gathering was a time-consuming manual process."

The Bottom Line: Reduced Downtime and a Happy Customer

Tularik's case underscores the value of SGI Electronic Support in making customers and SGI support engineers more productive. Without the automatic, proactive monitoring and notification of ESP, the system failure would not have been discovered until the following Monday, and an entire weekend of compute cycles would have been lost.

"We may have lost a result, but not the weekend," says Starry. "So we saved three days of processing time. When you realize that some of these searches can take almost a month to run, executing continuously is pretty important."

"We operate in a rather intense environment. Our real focus here is on delivering results, which are time-critical. SGI Electronic Support is an excellent tool for ensuring productivity and reaching milestones."

SGI Electronic Support also relieves Tularik IT staff members of the need to monitor system conditions. "ESP does something for my peace of mind, and I can spend my time doing other things that are more challenging," says Broening. "I know that if something goes wrong with the machine, there will be a quick response from SGI. Nothing is going to slip through the cracks. The ball is automatically in SGI's court, and it doesn't require my intervention."

"It works for us," says Starry. "We're a happy customer."

"SGI Electronic Support is an excellent tool for ensuring productivity and reaching milestones."

—Scott Starry, Project Manager for Scientific Computing, Tularik



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