



## Case Study: SCBIT

Less Complexity, More Flexibility

### Business Value

- Lower TCO
- High availability
- Application performance
- Faster time to market
- Less system administration

### Executive Summary

SCBIT chose the Egenera® system over IBM and Sun for its ability to simplify consolidation, virtualization and management; reduce application time to market; and lower datacenter costs. Egenera provides the flexible allocation and repurposing that SCBIT requires: The agency can run any of its 10-plus applications on any blade at any time. Egenera also enables SCBIT to make every application highly available at virtually no cost and provides a unique N+1 approach to disaster recovery. Rigorous evaluation demonstrated the performance advantages of running Oracle® 10g on Egenera versus traditional systems, while a single console provides remote access, lowering administration requirements.

### Business Challenge

Established in July 2002, the Shanghai Center for Bioinformation Technology (SCBIT) is a non-profit organization engaged in the research and development of bioinformation technology under the administration of the Science & Technology Commission of Shanghai Municipality. Its mission is to promote the advancement of life sciences, biotechnology and the biopharmaceutical industry in Shanghai and across the country.

SCBIT develops and manages the Shanghai R&D Public Service Platform (RDSP), which provides design, examination, testing and standardization services to scientists, engineers and technicians in both institutes and enterprises. With phases one and two complete, SCBIT plans to continue building the RDSP through 2015.

Recently, SCBIT chose the Egenera system as the foundation for RDSP infrastructure. The Egenera architecture, selected over legacy servers for its simplicity, openness and utility computing capabilities, is slated for deployment in cities throughout China.

“The RDSP consists of more than 10 sub-systems running various applications. Because these applications are complex, mission-critical and frequently modified, a virtualized, easily managed platform was needed,” said Dr. Yixue Li, director of Shanghai Center for Bioinformation Technology. “Egenera’s integrated system of hardware and software met all the requirements to achieve our vision for a world-class bioinformatics research and service center.”

Dr. Li continued, “Compared to the IBM and Sun platforms we evaluated, the Egenera architecture simplifies consolidation, virtualization and management—enabling us to reduce application time to market and lower datacenter costs. With Egenera, as our platform continues to expand, we will avoid the complexity and server sprawl that are inevitable with legacy technology.”

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*Dr. Yixue Li  
Director  
Shanghai Center for  
Bioinformation Technology*

### BladeFrame Benefits

The RDSP, which supports resource management and information consolidation along with database applications, is a high priority for the Shanghai government and serves as a model across China. Already, as many as 10 cities throughout the country are planning similar deployments to reap the advantages of Egenera technology, which include:

**Utility Computing:** The Egenera architecture provides the flexible allocation, reallocation and repurposing that SCBIT requires. Since Egenera Processing Blade™ modules are stateless and anonymous, the agency can run any of the platform's 10-plus services on any blade at any time, based on demand. This ability to right-size applications also improves the cost-effectiveness of datacenter infrastructure.

**Simplicity:** SCBIT was impressed by the physical simplicity of the Egenera system, which consolidates connections to power, networks and storage. Moreover, through virtualization, Egenera has replaced 80 percent of the hardware components on a legacy server with software equivalents, lowering costs and improving reliability by eliminating failure points.

**Open Architecture:** The Egenera platform is connected to a NetApp® FAS3020C. Likewise, Egenera's ability to run Linux®, Microsoft® Windows® and Sun® Solaris™ simultaneously on a single machine was a major factor in the purchase decision.

**Reliability:** Designed for enterprise datacenters, the Egenera system provides full redundancy of all components—both hardware and software, with no single point of failure—safeguarding uptime. Egenera also enables SCBIT to make every application highly available at virtually no cost: The system's diskless architecture and virtualization capabilities eliminate backup servers, redundant network and storage connections and complex clustering software. Disaster recovery of complete Egenera platforms across locations will also be achieved with this unique N+1 approach.

**Server Consolidation:** At SCBIT, Egenera technology reduced server count while simultaneously increasing processing capacity. Legacy architectures evaluated could not achieve both consolidation and reliability for the agency's mission-critical applications.

**Performance:** The Egenera solution has a remarkable synergy with Oracle 10g, SCBIT's chosen database. Rigorous evaluation demonstrated the performance advantages of running Oracle on Egenera versus traditional systems. Oracle Application Server and BEA® WebLogic™ also support the application.

**Management:** Egenera's elegant provisioning and management software distinguished it from other platforms evaluated. A single console provides remote access to all virtual servers in the system, lowering administration requirements and costs. SCBIT officials describe server management with Egenera as "simple, clear and easy."



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