

IN CHINA, SUN AND ORACLE DELIVER THE CONNECTED CAMPUS

Key Features

Organization/IT Needs

- Establish a consistent, high-performance platform for campus-wide networking
- Maintain performance and reliability as more users come online
- Deliver strong security without imposing upon authorized users

Sun Products/Services

- Systems: Sun Fire™ v20z servers
- Software: Solaris™ 10 OS

Sun Partner Products

- Oracle Database 9i
- Uniform ID Identification System (Dongda Wiscom)

Results

- Proven performance in initial roll-out
- Ability to scale up without compromising on performance
- Total confidence in Sun and Oracle products and support capabilities

When the time came to modernize and streamline its networking resources, the East China University of Science and Technology (ECUST) looked to the worldwide leaders in network computing for assistance. Sun, Oracle, and its partners integrated the university's information resources and delivered a secure, high-speed, reliable campus network. And in the process, they ensured a higher level of learning for thousands of students.

It All Comes Together Here

The vision of the digital campus—where students, faculty, and administrators share information and ideas seamlessly—has been around for many years. The actual implementation of the digital campus is far more recent, and, to be frank, has not always matched the vision. In many cases the infrastructure has been assembled in a piecemeal fashion over a period of years, resulting in compatibility issues, “silos” of data, and islands of information that are accessible to limited individuals or device types.

East China University of Science and Technology (ECUST) was determined to deploy an integrated framework that would fully deliver on the promise of the connected campus. After careful analysis and investigation, ECUST put forward a strategy to implement a high-speed, broadband, interconnected campus network based on safe, reliable, and energy-saving technology. To execute this plan, ECUST called in some of the most experienced, trusted, and proven vendors in the industry: Sun, Oracle, and Dongda Wiscom.

“We chose Dongda Wiscom as the general integration partner because of its veteran experience in digital campus construction,” said a spokesperson from ECUST. “Sun is the platform of choice for network infrastructure in higher education institutions worldwide. And Oracle is not only the preferred option for database, but also has a strong partnership with Oracle.”

Speed is of the Essence

The data sharing platform envisioned by ECUST needed to integrate many resources — from Web services and e-mail to sophisticated video-on-demand (VOD) applications to operations/administrative workloads and human resource management.

With thousands of administrative and faculty clients in addition to tens of thousands of students, the system had to combine extremely high performance and solid reliability. For that reason, ECUST selected Sun v20z servers running the Solaris 10 Operating System as a cornerstone of its infrastructure.

“As we all know, Sun servers with the Solaris operating system is the preferred option of many higher education institutions worldwide,” said an ECUST spokesperson. “Sun spares no effort in supporting schools, especially in the China market. Every year Sun brings the most advanced information-based education concepts to China schools and communicates with them in a comprehensive manner. This is why China schools have a deep trust in Sun.

Equally important to that trust is the high reliability of Sun servers. The combination of

built-in reliability, availability, and serviceability (RAS) features in the hardware plus the added reliability features of the Solaris 10 Operating System adds up to extremely high levels of uptime for Sun servers — and higher productivity for students, faculty, and administrators.

Also vital to overall performance is data accessibility, and this was a key reason ECUST chose Oracle for its database applications. The school had built up several different kinds of databases over the years, resulting in incompatibilities and inconsistencies. By standardizing on Oracle Database, ECUST could overcome these issues and improve the overall flow of data through its integrated networks.

Strong Data Sharing with Tight Security

Another key challenge education institutions face in integrating information resources today is providing the proper level of security. The school must ensure not only that people have access to the resources they need, but also that people have access only to the information they are entitled or authorized to view. Given the many different types of information and the mix of students, faculty, and administrators who use the network, access control can be a very complex task.

In Phase I of its digital campus project, ECUST implemented a data sharing platform that included a Uniform Identity Verification system from Dongda Wiscom. “Our experience with integrated access controls, combined with technologies from Sun and Oracle, creates an advantage for our business and strong security for our customers,” said Zhu Jie, marketing manager of the Shanghai division of Dongda Wiscom. “Users can access the

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resources they need from anywhere, using a range of devices, and they can access only the resources for which they are authorized.”

Cost-Effective Scalability

Initiated in 2005, the public database platform portion of the ECUST project launched on schedule in August 2005, and has now been up and running successfully for almost two years. The first deployment on the Fengxian Campus Area deployed five Sun Fire v20z servers to provide Web services, e-mail service, the VOD services, anti-virus/backup services, and a variety of OA services.

Because the Sun Fire v20z servers use the AMD Opteron processor, both 32-bit and 64-bit applications are supported. And since Opteron has excellent expandability, it can support more and more users as the digital campus network is built out in the years ahead. The Opteron-based servers can be expanded to dual-core capabilities when needed, so the server efficiency can be increased without the purchase of additional servers.

“In our digital campus project, we got great support from Sun, Oracle, AMD, and Dongda Wiscom, said the ECUST spokesperson. “Especially in the high-quality products they provided, which guarantee high efficiency and stability of our information system.”

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