IGI PUBLISHING ITB14418
701 E. Chocolate Avenue, Suite 200, Hershey PA 17033-1240, USA
Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.igi-pub.com
This paper appears in the publication, **Cases on Information Technology, Volume 7: Lessons Learned** edited by **M. Khosrow-Pour © 2006, IGI Global**

Chapter XXII

Enterprise System Development in Higher Education

Bongsug Chae, Kansas State University, USA

Marshall Scott Poole, Texas A&M University, USA

EXECUTIVE SUMMARY

"One system for everyone" has been an ideal goal for information technology (IT) management in many large organizations, and the deployment of such systems has been a major trend in corporate world under the name of enterprise systems (ES) (Brown & Vessey, 2003; Davenport, 2000; Markus, Petrie, & Axline, 2000). Benefits from ES use are claimed to be significant and multidimensional, ranging from operational improvements through decision-making enhancement to support for strategic goals (Shang & Seddon, 2002). However, studies (Hanseth & Braa, 2001; Rao, 2000; Robey, Ross, & Boudreau, 2002) of the deployment of ES in private sector organizations show that the ideal is difficult to accomplish. This paper reports a case in which a major university system in the US attempted to develop an in-house enterprise system. The system is currently used by more than 4,000 individual users in almost 20 universities and state agencies. This case offers a historical analysis of the design, implementation and use of the system from its inception in the mid 1980s to the present. This case indicates that ES design and implementation in higher education are quite challenging and complex due to unique factors in the public sector — including state mandates/

requirements, IT leadership/resources, value systems, and decentralized organizational structure among other things — that must be taken into account in planning, designing and implementing ES (Ernst, Katz, & Sack, 1994; Lerner, 1999; McCredie, 2000). This case highlights (1) the challenges and issues in the rationale behind "one system for everyone" and (2) some differences as well as similarities in IT management between the private and public sectors. It offers some unique opportunities to discuss issues, challenges and potential solutions for the deployment of ES in the public arena, particularly in higher education.

ORGANIZATIONAL BACKGROUND

The Land Grant University System (LGUS) is one of the more complex systems of higher education in the nation. Currently, LGUS consists of nine universities, eight State agencies and a medical science center that serves over 100,000 students and reaches more than four million people each year through its service outreach mission. Research projects underway by system universities and research agencies total roughly $400 million. The system employs more than 23,000 faculty and staff members located throughout the state and serves all counties in the state. The annual budget for the LGUS is approximately $2.0 billion.

The state established its first college in 1876, and this marked the beginning of LGUS. During the 1970s and 1980s, LGUS experienced tremendous growth in terms of its major activities of teaching, research, and public service. The system experienced a 27% growth in its student population, and more growth was expected. In 1986, the system achieved recognition as one of the top 10 National Science Foundation (NSF) ranked research universities in the US. In addition to teaching and research, LGUS provided significant services to the citizens of the state through practical application of research-based knowledge.

At the outset of our case, in October 1988, LGUS consisted of four universities and seven associated agencies:

1. Central System Administrative Office (HQ) — the university system's headquarters;
2. Big Campus;
3. West Campus;
4. Southeast Campus;
5. South Campus;
6. Agricultural Research Station (ARS);
7. Agricultural Extension Service (AXS);
8. Veterinary Extension Service (VXS);
9. Engineering Research Station (ERS);
10. Engineering Extension Service (EXS);
11. Forest Service (FS); and
12. Transportation Research Station (TS).

In 1989, LGUS experienced another period of significant growth when three universities joined the system. In 1990, another university (Northwest Campus) joined the