In support of Stephen F. Austin State University's mission and technology plan, the University proposes to implement an initiative called the STAR project. STAR, an acronym for "Strategic Technology for Access and Research," is designed to support the goals outlined in the Closing the Gaps report. SFA shares the need to improve access to student support services that support degree completion for distance learning students (Closing the Gaps Goal 2/SFA Goal 2). Objectives supporting this goal include the installation of foundational software to begin systems integration and training in use of the software. Oracle database software will be purchased and installed, and selected technical staff will receive training. SFA will also obtain campus portal software that may be customized to optimize access to all university services. Specifically regarding research, SFA has a recognized need to increase its level of federal funding for science research (Closing the Gaps Goal 4/SFA Goal 1). The objectives of this goal are to connect to SFA's research facilities not located on the main campus and to enable students to have access to specialized software for research at the SFA Science Research Center. Towers and wireless telecommunications equipment will be installed for connectivity to remote SFA research campuses. An unlimited, perpetual license for molecular modeling software will be purchased. The expected results of the STAR project are that an increased number of students will be involved and supported in scientific research at SFA, SFA will be better positioned to secure federal funding in the area of scientific research, and systems will be set in place so that students will have improved access to the information and services they need to efficiently enroll, participate in, and graduate from a program of study at SFA.
FORM 5: VISION STATEMENT & INTRODUCTION TO NARRATIVE

Include statement of purpose, goals and philosophy. Clearly establish what entity is applying for funding. Describe the target population, their characteristics; and how many will be affected by the project. Explain how the project serves rural, remote, and underserved populations. Describe how organizations in the community may/will contribute to the project. Indicate whether the proposed project involves a single entity or represents a collaborative effort by more than one organization. Where the project involves more than one organization, explain the roles and responsibilities of each entity relevant to the project. Include mechanisms to promote growth, community involvement, and responsibility for self-containment.

This form was not included because it was not on the checklist.
The STAR project supports SFA's long-range technology plan by removing barriers to student access of information and supporting the university's mission as "a dynamic, learning-centered university dedicated to enhancing student success." Currently, the systems that the university has are antiquated and do not provide access to integrated, online services needed by students, especially by students in distance education environments. SFA has great potential to establish a strong research center capable of attracting increased federal funding for scientific research. However, the existing problem is that the University is hampered by a lack of sufficient licenses to access research software and an inability to efficiently communicate and share data between existing research facilities. There is also a lack of hardware sufficient to analyze scientific research data, specifically in the field of molecular modeling. Another need is high-speed access to the main campus from outlying research facilities in order to provide off-campus students access to molecular modeling software, provide the ability to exchange high-resolution images over the Internet, and support increased enrollment and research in the Master's of Biotechnology program at SFA. This will increase the probability of procuring National Science Foundation grants in October and November of 2002. The university also needs high band-width connectivity to support work-force development programs currently underway at the research facilities. Over $800,000 was provided to SFA by Pilgrim’s Pride, Tyson Foods, and Sanderson Farms to build new broiler houses and continue research in beef cattle production, poultry production and poultry litter management. Currently, students and instructors at SFA research facilities have antiquated phone line connectivity to the Internet at 16,800 bps. This low transmission speed prohibits the remote manipulation of research equipment and makes the sharing of research data unfeasible. The STAR project will provide enough bandwidth to make these research and workforce development functions possible.
FORM 7: PROJECT OBJECTIVES & METHODS

Identify project objectives and the methods or activities that will occur to meet the stated objectives. Objectives should be specific, identify what needs to be done, and be directly related to solving the needs defined in Form 6. Clearly describe project activities, state reasons for selection of activities, describe sequence of activities, describe staffing selections.

The following objectives support the accomplishment of the stated project goals:

GOAL 1: Strengthen SFA’s ability to increase the level of federal science research funding (Closing the Gaps Goal #4).

Objective 1.1 Establish high-speed communications link between SFA’s main campus and the Science Research Center (SRC).

Objective 1.2 Enable students at the SRC to access molecular modeling software on the Cray supercomputer at the main campus.

Objective 1.3 Establish high-speed communications link between SFA’s main campus and the Walter Todd Beef Farm.

Objective 1.4 Establish high-speed communications link between SFA’s main campus and the Poultry Farm.

Objective 1.5 Establish high-speed communications link between SFA’s main campus and the Observatory.

High-speed Internet connectivity will be established from the main SFA campus to the SRC, the Beef and Poultry research centers, and the Observatory through the installation of wireless technology. The planned bandwidth will enable students and faculty at the off-campus research facilities to access specialized molecular modeling bioinformatics software housed at the main SFA campus, exchange high-resolution images and research data remotely, control research equipment and remote cameras at the poultry farm and observatory, and transfer data from research facilities to the main campus and to corporate partners. Currently, traditional forms of connectivity, such as T1 lines, are unavailable to the Beef Farm, Poultry Farm, and Observatory and, if available, would be inadequate for transferring high-resolution images. Specifications for wireless equipment will adhere to the Telecommunications Infrastructure Fund Minimum Technical
Specifications for Wireless Internet Connections. Technical support for the project will be provided by the Offices of Information Technology Services (ITS) and Instructional Technology (OIT) at SFA. ITS will manage the wireless connectivity during and after the grant period. Currently, SFA has a single license of bioinformatics software, which greatly inhibits the research efforts of multiple students needing access to the software. To address this problem, an unlimited multi-user license of the software will be purchased. It will also be perpetual. The Department of Environmental Science will oversee use of the bioinformatics software, and students will receive training from their instructor in use of the software. Faculty are already trained in the use of the software.

GOAL 2: Improve access to student support services that improve degree completion for distance learning and traditional students (Closing the Gaps Goal #2).

Objective 2.1 Provide foundational software for Integrated Enterprise System.

Oracle database software will be installed and configured as the foundation piece for the phased integration of the financial, human resource, and student information systems at SFA. Establishing a state-of-the-art Integrated Enterprise Application system will take longer than the time frame of the Higher Education 4 (HE4) grant. However, during the grant time frame, it will be possible to install the database software on which the Enterprise System will function. SFA will make SCT Banner the student information system component of its integrated system. In the long term, Banner will be linked to SFA's course management system, WebCT. The new integrated Banner system supports the achievement of the Closing the Gaps Goal #1 and Goal #2 in the following ways.

1. Students may communicate more easily with peers in the connected learning community.
2. Students will have constant access to Web-based courses and course materials, which will support their participation and success in the course or program they are pursuing.
3. Students in the workforce will be enabled to access information regarding admission to the University, course requirements, enrollment in courses and programs, and they will be able to experience success through course or program completion.

4. Students may access transcript requests, gradebook, admissions, and other components of the University as needed. Students will have 24-hour access to personal information, class schedules, registration fee assessments, financial aid and more.

5. Students need information from the university after working hours. Students will have 24-hour access to university information without expanded services and personnel costs at the university.

Objective 2.2 Provide staff training in use of software.

Selected computing staff from the Office of Information Technology Services will attend off-site vendor provided classes to receive Oracle training. The Office of Information Technology Services will manage the Oracle installation and configuration.

Currently, SFA's system is comprised of disparate systems which do not all communicate among themselves in real time and which require nightly batch reconciliations in order to share data. The current system is not Web-enabled and is inaccessible to students, faculty, and staff for three or more hours each night for backup of data. On occasion, the online systems must be disabled during the day for critical batch processing. The Integrated Enterprise System will provide Web access to real time data 24 hours per day.

Objective 2.3 Obtain portal software that may be customized to fit the university's portal needs.

SFA will purchase Campus Pipeline traditional license in order to enhance and integrate student and faculty services. The traditional license will improve access and provide a connected learning solution for both on-campus and off-campus students.
This project has been planned with the expectation of long-term sustainability. Cost to maintain wireless equipment in the year after the completion of TIFB funding will be minimal. Stephen F. Austin State University (SFA) will be responsible for future maintenance and upgrades to the wireless system in order to maintain connectivity between the university's outlying research campuses. Replacements or upgrades will be funded as needed through University budget appropriations and Federal and State grants for maintenance of the wireless system. The STAR project also supports an Enterprise Application Integration approach. SFA is committed to the phased upgrade of the student information and administrative systems over a period of three years. SFA has designated $250,000 for year one of the integration and will dedicate necessary funds in subsequent years to complete the integration of financial, human resource, and student information systems. SFA is requesting that TIF fund Oracle database software, the foundation piece; however, it should be noted that SFA is committing local funds for such critical components as the upgrade from SCT Plus to SCT Banner, training needed to complete the integration over the next three years, and the purchase of fully customizeable portal software. An educated workforce is required to keep Texas viable as an economically robust and prosperous state. On July 6, 2002 U.S. Senator Kay Bailey Hutchison visited SFA's Science Research Center and announced she would work to securing funding that would make East Texas a biotechnology hub and diversify the region's economy. On July 26, Hutchison announced that $1.5 million in funding for the SFA Science Research Center has been included in the 2003 Environmental Protection Agency budget.
FORM 9: PROJECT TIMELINE

Include a detailed timeline for installation of equipment, training, and project activities. Document when outlined objectives are expected to be met as well as major milestones projected over the life of the project. Refer to the RFP for anticipated starting and ending dates for the grant project. All obligations of funds for activities and services conducted shall occur within those dates.

This form was not included because it was not on the checklist.
The project director is responsible for conducting the evaluation plan. The evaluation plan will include formative evaluations consisting of equipment testing and systems evaluation. Support technicians will collect data regarding system testing and performance. Written observations by the Project Director will be used to collect and report data regarding utilization of items purchased with grant funding. Any action or corrections deemed necessary as a result of the evaluations will be taken to ensure accomplishment of the stated goals and objectives. Summative evaluations will be conducted to determine the effectiveness of the STAR project and the application of TIF grant funds toward the project goals and objectives.

The evaluation criteria for each of the project objectives is defined below.

Objective 1.1 Establish high-speed Internet connectivity at the SFA Science Research Center (SRC).

Evaluation Criteria: The Wireless connection must be fully functional and meet all TIF requirements. Access to the Internet must be documented at a rate of 45MB.

Objective 1.2 Establish high-speed Internet connectivity at the Walter Todd Beef Farm campus.

Evaluation Criteria: The Wireless connection must be fully functional and meet all TIF requirements. Access to the Internet must be documented at a rate of 10MB.

Objective 1.3 Establish high-speed Internet connectivity at the SFA Poultry Farm campus.
Evaluation Criteria: The Wireless connection must be fully functional and meet all TIF requirements. Access to the Internet must be documented at a rate of 10MB.

Objective 1.4 Establish high-speed Internet connectivity at the SFA Observatory campus.
Evaluation Criteria: The Wireless connection must be fully functional and meet all TIF requirements. Access to the Internet must be documented at a rate of 10MB.

Objective 1.5 Enable the SFA research campuses to access modeling software and exchange modeling data.
Evaluation Criteria: Students from various research campuses will be able to access the bioinformatics software and exchange research data across the high-speed Wireless connection.

Objective 2.1 Provide foundational software for Integrated Enterprise System.
Evaluation Criteria: Oracle database software must be purchased, installed and customized to begin integrating SFA's financial, human resource, and student information systems.

Objective 2.2 Provide training in use of software.
Evaluation Criteria: Selected technical staff from the SFA Office of Information Technology Systems (ITS) will be trained in using Oracle software to install and customize Oracle to SFA's financial, human resource, and student information systems.
Evaluation results from this project will be used to obtain outside grant funding to support science research at SFA and to continue the Enterprise Application Integration at SFA to ensure a more connected learning community for all SFA students.

Objective 2.3 Obtain portal software that may be customized to fit the university's portal needs.

Evaluation Criteria: Campus Pipeline Traditional License Software will be purchased, installed and customized to fit SFA's integrated solution. Students, both on and off campus, will have expanded access to student services at the university.