



PROPOSAL
for an

IT CAREER AWARENESS PROGRAM

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IT CAREER AWARENESS PROGRAM

Summary

The Information Technology Council of North Dakota (ITCND) is seeking private and public sector partnerships to establish a first-ever IT Career Awareness Program to inform students, parents and educators of IT career opportunities in North Dakota and develop a world-class IT workforce for the future.

According to research conducted by two workforce-related state agencies, securing an educated and skilled IT workforce for the future and creating awareness of the state's IT career opportunities are two significant IT workforce needs. Currently, there is no statewide program to address these issues.

The IT Career Awareness Program will be approached in three phases: 1) Feasibility, Industry Support and IT Needs Assessment Study; 2) Program Development; 3) and Program Coordination and Implementation. ITCND will be the coordinating entity and the private sector connection. It will look to public and private sector partners to fund each phase of the program. The budget for the feasibility and industry support study and development of the program is \$70,000, and the budget for annual program coordination and implementation is \$85,000.

Introduction

State public and private leaders recognize the need to secure a world-class IT workforce for the future.

- The Governor's talent initiative identifies IT as one of the state's five target industries. This designation identifies it as one of the most exciting growth prospects for North Dakota. However, this growth faces the challenge of attracting, retaining and expanding the state's IT talent to meet the employment opportunities.
- State legislators passed an initiative in 2007 to establish a career specialist program for the state's target industries. Members of the legislative assembly recognized that the energy industry had a successful model that could possibly be replicated by other industries. After ITCND staff met with energy industry officials, it was obvious that IT and energy are facing similar workforce issues and that the program model used by energy would be a good model for an IT Career Awareness Program.
- As the state's IT trade organization, ITCND is committed to actively encouraging the use, growth and development of IT in North Dakota. With talent development as one of its six goals, the organization works to develop programs and activities that help to secure a skilled and educated workforce for the future.

ITCND was founded in 2000 by North Dakota business, government, and education leaders to strengthen the state's IT infrastructure and position itself as a national leader in IT.

Problem Statement

According to research conducted by two workforce-related state agencies, securing an educated and skilled IT workforce for the future and creating awareness of the state's IT career opportunities are two challenges facing the industry.

- Job Service North Dakota reports that, in its long-term projections through 2014 covering more than 100 industries, six of the top 25 growing occupations (based on percentages) are in the IT industry, including three of the top five. The average wage for these six occupations is \$53,552 with a range from \$44,152 to \$70,648.

- Job Service North Dakota projects that through 2014 there will be approximately 1,300 job openings within only those top six occupations due to growth and replacement. An accurate number reflecting the total projected number of IT jobs by 2014 or annually is difficult to quantify since IT is an integral component in numerous industries including advanced manufacturing, energy and healthcare.
- The North Dakota Department of Commerce research indicates there is a significant lack of awareness about the state's career opportunities by students, parents and educators. The career goals of juniors and seniors in high school showed no correlation with the high-growth and high-demand occupations in North Dakota.

There is no statewide program established to address these issues. It is important for the IT industry to be proactive in coming together and forming an ongoing, coordinated effort to make students, teachers and educators aware of the high-wage, high-demand IT job opportunities.

In addition, an updated IT needs assessment (last completed in 2003) is needed as the foundation to guide the focus of the IT Career Awareness Program.

"Our IT workforce needs are increasing annually. We are currently working with universities on programs to meet our needs. However, a disconnect still exists between elementary and high school students, parents and educators and private sector industry. We need a way to reach elementary and high school students to get them thinking about IT careers prior to making their post-secondary decisions," says Gary Inman, ITCND president and Director of IT for Microsoft.

Objective of the IT Career Awareness Program

The objective of the IT Career Awareness Program is to inform students, parents and educators of IT career opportunities in North Dakota and to develop a world-class IT workforce for the future.

A summary of the program, modeled after the energy career awareness program, follows:

Potential partners will include ITCND, private industry, the Governor's Office, the North Dakota Department of Commerce, the North Dakota Information Technology Department, Bank of North Dakota, the Department of Career and Technical Education, Job Service North Dakota, the North Dakota Career and Resource Network, the North Dakota universities and public school systems.

The program will be coordinated by ITCND and administered through a contract with an individual, preferably an educator with background knowledge of the IT industry. Opportunities for interaction with students, parents and educators include classroom visits, job fairs, teacher in-services, teacher's convention, Marketplace for Kids and Entrepreneurs and distribution of information to the state's REAs for dissemination to school counselors.

The content of the program will be based on the findings of the updated IT needs assessment and will include IT industry background and current information on trends, skills, salaries, work environments, etc. Students, parents and educators will also be informed on skill sets required, post-secondary opportunities and next steps for pursuing an IT career. The audience will be given a reference list of industry contacts willing to provide their expertise should there be further questions.

In order to establish accountability for the program, the Department of Career and Technical Education will assist in establishing measures to track the success of the program through its student tracking system.

The age groups targeted will be grades 5 through 11. According to Kent Ellis, Energy Career Awareness Program coordinator, the earlier the students are reached, the more likely they are to begin considering a specific career path. Classes targeted for the program will include freshman career classes, science, math, English and communication.

Process

The IT Career Awareness Program will be approached in three phases: 1) Feasibility, Industry Support and IT Needs Assessment Study; 2) Program Development; 3) and Program Coordination and Implementation. ITCND will be the coordinating entity and the private sector connection. It will look to public and private sector partners to fund each phase of the program.

Phase 1: Feasibility, Industry Support and IT Needs Assessment Study: July 2007- March 2008

Phase 1 will include:

- Meetings with private IT industry leaders and stakeholders to determine if there is financial support to develop and maintain an IT Career Awareness Program
- Meetings with other industries, such as health care, to determine if collaboration or coordination of similar career awareness programs could take place
- Meetings with public sector entities to determine partnerships and start-up dollar opportunities
 - Governor's Office
 - ND Department of Commerce
 - Job Service ND
 - Career and Technical Education
 - ND Career Resource Network
 - Information Technology Department
 - ND University System
 - ND Public School System
 - REAs
 - Bank of North Dakota
- Updated IT needs assessment
 - The initial IT needs assessment was completed in 2003 by the North Dakota Workforce Development Council, Information Technology Department, Southwest Workforce Skills and Technology Training Center, University Systems, Job Service North Dakota, and the GNDCC-New Economy Initiative
 - The purpose of this updated research study will be to:
 - Obtain information used to enhance IT education and training programs in North Dakota, including the IT Career Awareness Program
 - Enable organizations in our state to obtain the quality and quantity of IT workers they need now and/or in the future
 - To do this, the study will again focus on the following objectives:
 - Assess employer's needs for qualified IT workers
 - Determine qualifications needed and desired in IT workers

Should Phase 1 show there is adequate industry support to move forward with the program, Phases 2 and 3 will be implemented.

Phase 2: Program Development: April - August 2008

Phase 2 will include:

- Securing private industry buy-in for a 2-year program
- Meeting with stakeholders to form the logistics of the program based on addressing the issues revealed through the updated IT needs assessment
- Beginning work with the state's educational institutions to determine the age and classes to target
 - Grades (potentially 5-11)
 - Classes

- Science, math, English, communication, freshman career classes
- Identifying the best means of information distribution
 - Classroom
 - Job fairs
 - Teacher in-services
 - Marketplace for Kids
 - REAs (JPAs) for dissemination to school counselors
- Securing contractor, presenters, etc.
- Developing presentation content and materials
- Timeline/Budget

Phase 3: Program Coordination and Implementation: September 2008

- Coordinate the delivery of the IT Career Awareness Program to students across North Dakota

IT Career Awareness Program Budget Summary

ITCND is looking for public and private sector partners for each phase of the program. The budget for the feasibility and industry support study and development of the program is \$70,000, and the budget for annual program coordination and implementation is \$85,000.

IT Career Awareness Program Budget

Phase 1 and 2 (one-time funding)		
Income		
Public/Private Sector Partners		\$70,000
	TOTAL	\$70,000
Expense		
Phase 1:		
Feasibility, Industry Support and IT Needs Assessment Study		\$45,000
Phase 2:		
Program Development		\$25,000
	TOTAL	\$70,000
Net Income		\$0
Phase 3 (annually)		
Income		
Private Industry		\$42,500
Public Sector		\$42,500
	TOTAL	\$85,000
Expense		
Phase 3:		
Coordination and Implementation		
Coordination Services (ITCND)		\$8,500
Administration Services (BPS)		\$4,250
Presenter contract		\$55,000
Travel		\$10,000
Materials		\$7,250
	TOTAL	\$85,000
Net Income		\$0