



2015 CAREER TECHNICAL EDUCATION ENHANCEMENT FUND

PROPOSAL

TO LAUNCH A SAN FRANCISCO BAY AREA
SHARED REGIONAL ICT TECHNICAL LAB FACILITY

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Executive Summary

This is a proposal for a State of California 40% CTE Enhancement Funding grant administered by the Bay Area Community College Consortium (BACCC).

Information and communication technologies (ICT) is absolutely booming as an industry and employment sector, globally, nationally, in California and, especially, in the San Francisco Bay Area.

BACCC has identified ICT as a priority strategic sector, generally and in this grant proposal solicitation.

The 28 San Francisco Bay Area community colleges all have ICT related programs, and all struggle with funding, building and managing hands-on ICT lab facilities that provide skills demanded by ICT employers.

This proposal will take roughly a million dollars in one-time grant funding to create, staff and prove a regional shared ICT lab facility which will be used, initially, by 24 of those 28 colleges.

This combination of software and hardware will enable faculty and students, from any Internet accessible location, to utilize a virtual lab environment designed to provide employer demanded “hands-on” experience with a variety of computer operating systems, networking equipment, and application software.

The solution comes with 450 proven ICT labs that will enable participating colleges to offer both entry-level classes and incumbent worker training in ICT related areas that range from introductory computer classes to cutting edge courses that focus on cybersecurity, virtualization, big data, operating system administration and network configuration and design.

A key feature of this ICT Lab facility is the ability to control access to individual lab environments (pods) through its reservation system. For face-to-face classes, faculty will be able to reserve a sufficient number of pods for their students during class time. Since the lab environment is available 24/7, students will be able to register for pod access on a first come, first serve basis, and gain hands-on experience outside of the classroom. The lab environment is also well suited for instruction of online classes.

Faculty are provided key statistical information including “time on task”, configuration and log files for the networking labs, and assessment and reflection items that students must complete when doing their lab work. Additionally faculty can “enter” a student’s pod remotely and provide real time assistance.

The remote lab system can accommodate 288 simultaneous connections and up to 16,128 individual 3-hour lab sessions during any 24/7 week.

It would cost an individual college about \$150,000 to create a similar lab to support its own needs. That does not include costs to manage the system. If each of the 24 colleges participating in this proposal did that, they would collectively spend \$3.6m. This effort creates similar functionality for all for less than a third of the one-time cost, and it provides an opportunity for a higher level of technical management and support for all, at a much lower cost, something all of the colleges struggle to support. It also creates a shared user community within and across colleges, which leads to collaboration and sharing.

Those colleges desiring to continue after the first year pilot must commit to either paying adequate annual participation fees, or obtaining additional industry, employer or grant support to sustain that facility into the future, at least 5 years. A sustainability model will be developed in a transparent manner, with all participating colleges and the region's two Deputy Sector navigators (DSNs) during the grant funding period, with the idea that it can be supported through regional grant applications, colleges' cost savings from less frequent hardware replacement and system value.

This effort aligns extremely well with the strategic intent of the *Doing What Matters for Jobs and the Economy* campaign. It is a pooling of interests of Bay Area colleges to more efficiently and effectively solve a common problem and better serve students and employers to accelerate economic impact.

This proposal directly addresses a Bay Area ICT occupation demand and supply gap of over 3,000 jobs annually.

This new strategic infrastructure enables or can be leveraged by a broad and diverse set of identified regional strategies to further improve CCC ICT education and workforce development.

- BACCC: please award it!
- College administrators: please commit to be a part of it and to sustain it!
- Community college ICT faculty: please learn to use it and use it well!

This is not the official proposal document. The official proposal was submitted on March 13, 2015 through required online systems. This proposal document is intended to be a user friendly way of developing and sharing a common understanding of the project concept, plans and potential.