

\*Project Name:

Please enter the name (or a descriptive title) of the specific program seeking support.

\*Project Amount (\$)

\*Project Start Date

\*Project End Date

\*Describe the project for which you are seeking funding (3-5 short sentences)

The Wireshark Multipurpose Lab Project will create 24 or 16 complete Netlab scenarios, each including an intro/demo video and SCORM assessment module. The set, as a whole, constitutes a complete TCP/IP analysis class. Each individual module is selected to also represent a key learning outcome from multiple certification training objectives for classes including CCNA Routing, CCNA Security, CEH, A+, Net+, Sec+, Linux+, LPI, VMware, EMC, Digital Forensics, as well as other business and administration classes. Each is a standalone plug and play module easily added to any class needing practice with computer and network protocols.

\*Describe the need, problem and/or opportunity addressed by the project. How did you identify the particular need addressed by your proposal? Please provide measurable evidence if applicable.

A strong commonality of learning outcomes for all ICT training, especially networking, security, software and administration careers, is the study of computer and network protocols, TCP/IP and the OSI model. The world's leading network analysis tool, Wireshark, is perfect for providing that, for a broad range of classes. John Gonder created and has run an extremely popular TCP/IP online class for more than 5 years. It provides important training not available in traditional certification curriculums and has proved successful in improving student performance in subsequent classes, as well as student success in getting and keeping good jobs. One student intern at LBL was hired full time within 2 weeks because he used his Wireshark skills to solve network problems better than other workers. The Netlab environment is perfect for packaging and providing this proven approach to many more teachers, classes, and students. To produce a complete module, each Netlab activity will include a video lesson to introduce key concepts and procedures for the activity, and a SCORM-compliant review module and assessment, which allows integration and automated scoring with common LMS systems.

**\*Describe how you will use funds:**

The funds will provide time and resources to consult with Wireshark developers, employers and working network analysts to verify current desirable skills. Current certification objectives will be reviewed to create the best list of common SLOs. Previous and prospective Wireshark exercises will be matched with common SLOs, and the scenarios vetted and packaged. Introductory and demo videos, SCORM assessment modules, PDF instructions and Netlab topologies and virtual machine images for each of 24 labs will be created, tested, and finalized.

**\*Why is this the right time for this project?**

The Wireshark class has proven very successful. John Gonder has taught Wireshark to CCNA teachers, and at High Tech Crime Investigation Association and MPICT conferences, which proved very popular and useful. This is the best way to get a very wide audience and make good protocol instruction available on the Netlab platform.

**\*Describe your organization's ability to implement the project. Please include staff strength and operational & fiscal management.**

Wayne Phillips and John Gonder have, over the past 10 years, created and successfully run more than a dozen high tech classes at LPC and Chabot. They have updated, modified, and run high tech labs covering CCNA, Linux, CEH, EMC, Sec+, A+, Net+, VoIP, Wireless and more certifications and career training classes. For 2 years they have had a successful Netlab infrastructure that is supporting multiple classes on both campuses and incorporating other instructors and disciplines. They have managed large budgets, hardware and software acquisition, and worked successfully with other disciplines and across colleges, and districts.

**\*What is the most difficult aspect of this project that could affect your success?**

Licensing for Windows virtual machines has been a problem for some Netlab topologies. We anticipate using Linux in place of Windows 7 as needed should this be a problem during testing.

**\*Will you be requiring any resources from your Deputy Sector Navigator (DSN) other than funding for the project? Please explain.**

We would like to provide a chance for other instructors and students to try the labs out during the testing phase. Coordinating with the DSN would assist with this.

**\*Given that you will share your results at the conclusion of your project, what are your plans to make your proposed project available for the NetLAB User Group and for your DSN and how will you increase the effectiveness of your work for the larger community? What would be your target audience?**

The whole of the project deliverables will be available for download and use, both within a Netlab environment, or for those not having one, on their own standalone systems.

Because each individual lab module has it's own individual introductory and demonstration video it is easy for any instructor to use, not requiring them to be a Wireshark guru.

The target audience would be instructors teaching almost any computer or network certification class, business administration, or network administration class. Even basic computer classes can benefit from seeing the reality of a network conversation, e.g. plaintext vs. encrypted passwords.