

Bus/CIT 2010-11

CIT Expand Security Certificate Equipment

Summary:

This initiative requests funding for the purchase of 13 Firewall & VPN appliance hardware, 30 wireless network adapters supporting 802.11n, and 10 wireless access points supporting 802.11n to meet student demand in the Network Security certificate program.

Description

Firewall & virtual private network hardware is needed for the CS 286 Firewalls and VPNs course, the final course in the Network Security certificate. Wireless network adapters and wireless access points are needed for the CS 188 Wireless Networking course, another required course for this certificate. The requested hardware is needed so students in these courses can install and configure firewalls, virtual private networks, and wireless networks in an instructional lab setting to learn network security. We currently do not have enough of these devices to handle the large increase in enrollment in the network security certificate courses. Additionally, in the case of the wireless network adapters and wireless access points, we need to upgrade to the current technology for wireless networks, that is, provide 802.11n support, in order to keep abreast of the industry. Without 802.11n support we will be teaching obsolete technology. By providing hardware that is commonly used in the workplace, students will have a realistic hands-on experience that will enhance their education and make them more employable. The hardware will be housed in the CIT lab rooms for student use. This initiative will allow approximately 75 to 100 students per year to benefit from this equipment. The request is an efficient use of college resources because the specific equipment models are considered inexpensive in their arena. The request is for half as many devices as the maximum number of students in the classroom because students will be expected to partner up.

Questions and Answers

How is the initiative linked to the Unit Plans most recently submitted?

- 1. How does it continue the achievement of those goals?**
- 2. If this is a continuation of an initiative started last year, make sure that relationship is clear.**

How is this initiative linked to the efficiencies and productivities plans you had last year?

- 1. How does it continue the achievement of these plans?**
- 2. If this is a continuation of an efficiency or productivity plan started last year, make sure that relationship is clear.**

This initiative addresses the hardware need for the Network Security certificate that we started offering Fall 2007. This certificate has been a great success. The majority of Network degree majors are also completing the Network Security certificate. However, we have more than doubled the number of students we are serving and as a result require more hardware to support two sections of the courses: CS 188: Wireless Networking and CS 286: Firewalls and VPNs. We need a minimum of 30 additional wireless networking adapters and 10 Wireless Access Points for CS 188, and we need a minimum of 13 additional firewalls for CS 286.

Describe the resources needed:

The following devices provide secure network connectivity when appropriately configured and are a necessary function of the Network Security certificate curriculum.

Firewall & VPN appliance hardware - Cisco ASA 5505 firewalls (13 * \$380 = \$4,940):

Request: Carl Perkins (CH) \$4,940

Request: Tech Fee (CH) \$4,940

802.11n wireless network adapters (30 * \$45 = \$1,350):

Request: Carl Perkins (CH) \$1,350

Request: Tech Fee (CH) \$1,350

802.11n wireless access points (10 * \$70 = \$700):

Request: Carl Perkins (CH) \$700

Request: Tech Fee (CH) \$700

Total \$6,990 network hardware:

Request: Carl Perkins (CH) \$6,990

Request: Tech Fee (CH) \$6,990

What specific measurable program outcomes do you expect to achieve with this initiative? The outcomes should be specific enough to be measurable. Also, outline the method that will be used to determine the results.

Enrollment in the network security courses has grown explosively over the past two years so that we now do not have enough hardware to enable students to develop employable skills. The network security certificate courses require hands-on student use of networking hardware to meet instructional outcomes. Since the existing quantity of firewall/VPN appliances, wireless network adapters, and wireless access points are insufficient to meet the large increase in enrollment, we need to purchase additional devices. In addition, the upgrade of the wireless devices to support 802.11n is needed because the existing devices are now outdated. The upgrade will allow students to use modern hardware which is crucial for their employability.

Department Priority:

Unit Resources:

The CIT department's lab staff and designated faculty will oversee the purchase and installation of the equipment. Physical management of the devices once on the premises will be handled by the department's staff.

Funding Request: Carl Perkins

Is this a Career & Technical Education program approved by the state and offered through Lane for credit?

Yes

If not a Career & Technical Education program, does your request provide considerable support for students enrolled in these programs?

No

Do you have an advisory committee that meets 2-3 times per year?

Yes

If request is for personnel, will funds be used to replace an existing position?

How will funding this initiative increase or sustain the academic achievement and technical skills attainment (GPA of 2.0 or better) of Career and Technical Education students?

The firewall, virtual private network, and wireless devices are computer networking hardware and will be used directly by students for educational purposes in a professional technical degree. Providing this equipment will allow students to learn contemporary practices in a hands-on manner to gain the technical skills needed for the workplace.

How will funding this initiative increase or sustain the number of CTE students that graduate or receive a one year certificate from Lane and help prepare the students for employment?

Increasing the quantity of these devices will allow the department to serve the number students currently enrolled and showing interest in the certificate. By upgrading the wireless devices to support 802.11n, the Network Security certificate will be more attractive to prospective students because the curriculum will be modern.

EQUIPMENT \$

COMPUTER HARDWARE \$

6990.00

COMPUTER SOFTWARE \$

MATERIALS & SUPPLIES \$

CURRICULUM DEVELOPMENT (Hours)

PART-TIME FACULTY \$

TIMESHEET STAFF \$

TRAVEL \$

Can this initiative be partially funded?

Yes

EQUIPMENT \$

(E) Explanation of effect of partial funding:

COMPUTER HARDWARE \$

2050.00

(CH) Explanation of effect of partial funding:

The Firewall and VPN appliances can be purchased separately from the wireless devices since they serve two separate courses. However the intent of the request is to allow the department to offer two sections of each course whenever needed. Funding only the firewalls or only the wireless devices will only allow two sections of the associated course and not two sections of both courses. In addition if the wireless devices are not purchased the CS 188 course will not keep up with current technology.

COMPUTER SOFTWARE \$

(CS) Explanation of effect of partial funding:

MATERIALS & SUPPLIES \$

(MS) Explanation of effect of partial funding:

CURRICULUM DEVELOPMENT (HOURS)

(CD) Explanation of effect of partial funding:

PART-TIME FACULTY \$

(PF) Explanation of effect of partial funding:

TIMESHEET STAFF \$

(TS) Explanation of effect of partial funding:

TRAVEL \$

(T) Explanation of effect of partial funding:

Funding Request: Curriculum Development

Funding Request: Technology Fee

1. Category of request

- **Maintain existing technology**
- **Increase student access to technology**
- **New technology**

Please type in the category of the request in the field below.

New Technology

2. Campus location

- **Main Campus**
- **Downtown Center**
- **Florence**
- **Cottage Grove**
- **CLC (list specific locations)**

Please type in the location of the request in the field below.

Main Campus

3. Names of the person(s) with more information (if needed):

Gary Bricher

4a. Budget ORGN

641320

4b. Budget PROG

112000

5.How many students will benefit per year?

75-100

6. Describe the benefit?

The firewall, virtual private network, and wireless devices are computer networking hardware and will be used directly by students for educational purposes in a professional technical degree. Providing this equipment will allow students to learn contemporary practices in a hands-on manner to gain the technical skills needed for the workplace. The devices will enhance their employability.

COMPUTER HARDWARE \$

6990.00

COMPUTER SOFTWARE \$

STAFFING \$

INSTALLATION \$

LICENSING \$

Can this initiative be partially funded?

Yes

COMPUTER HARDWARE \$

2050.00

(CH) Explanation of effect of partial funding:

The Firewall and VPN appliances can be purchased separately from the wireless devices since they serve two separate courses. However the intent of the request is to allow the department to offer two sections of each course whenever needed. Funding only the firewalls or only the wireless devices will only allow two sections of the associated course and not two sections of both courses. In addition if the wireless devices are not purchased the CS 188 course will not keep up with current technology.

COMPUTER SOFTWARE \$

(CS) Explanation of effect of partial funding:

STAFFING \$

(S) Explanation of effect of partial funding:

INSTALLATION \$

(I) Explanation of effect of partial funding:

LICENSING \$

(L) Explanation of effect of partial funding: