UNIVERSITY OF LOUISIANA AT LAFAYETTE

STEP Committee

Technology Fee Application

_____RFProtect Software Implementation_____
Title

_____Vickie Y. Bailey_____
Name of Submitter
(Staff or Faculty only)

_____Network Services_____
Organization

Title: Wireless Equipment Upgrade **Date:** 27 Jun 2022

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Department/College/Org : Network Services

ABSTRACT (250 words or less):

The University wireless has undergone major changes in the last 11 years. We have deployed GeauxWifi wireless access points to over the entire campus network buildings and many outdoor spaces. University students, faculty, and staff rely on wireless connectivity as part of their daily life; wireless is the preferred method of connectivity.

We are currently managing and monitoring over 3200 wireless access points with six wireless controllers and Airwave monitoring system. The access points service multiple different environments, such as academic classrooms, Student Union spaces, sports venues, residential areas, and outdoor spaces. The RFProtect software module safeguards the network infrastructure against wireless security threats as well as provides a critical layer of visibility into sources of radio frequency (RF) interference and the effect on wireless LAN (WLAN) performance. RF interference in WLANs is inevitable and unpredictable. It can originate from neighboring Wi-Fi networks or non-Wi-Fi sources, such as 2.4GHz cordless phones, microwave ovens, analog video cameras, gaming consoles and wireless telemetry systems.

Proposal:
    a. Purpose of grant and its impact:

        The purpose of this grant is to implement the RFProtect module to enhance adaptive radio management (ARM) functionality by including spectrum analysis capabilities which identifies and classifies interference sources in up to 13 categories, providing administrator analysis of the interference via 12 graphical charts. Aruba Mobility Controllers with RFProtect maintain signatures to identify and block wireless attacks so service is not disrupted. Based on location signatures and client classification, Aruba access points will drop illegal requests and generate alerts to notify administrators of an attack.

    b. Projected Lifetime

        The software module will remain operational throughout the University's use of Aruba wireless

    c. STEP Plan Alignment

        i. **SLO-2** – Continue to expand and enhance the campus network/internet access and its capabilities.

        ii. **SLE 7.2**

            1. Software licensing, maintenance, and assurance

            2. Wireless coverage on campus

d. Person(s) responsible for:
   i. Implementation: Existing NS staff will be responsible for developing a plan of deployment in areas with high reported interference or poor signal quality
   ii. Installation: Existing NS staff will be responsible for installing the software licenses onto the Aruba Mobility Master
   iii. Maintenance: Existing NS staff will maintain the software through upgrades and software patches
   iv. Operation: NS personnel will be responsible for the day-to-day operations of the spectrum analysis
   v. Training: Existing NS staff will be responsible for any training of department personnel
e. The budget proposal covers the cost of the RFProtect licenses, as well as the support costs.

Budget Proposal

1.	Equipment	$0.00
2.	Software	$66,570.00
3.	Supplies	$0.00
4.	Maintenance	$0.00
5.	Personnel	$0.00
6.	Other - Support	$13,383.50

TOTAL:	**$79,953.50**