

EXTENSION INFORMATION TECHNOLOGY INITIATIVE

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Background

In 2010, Tennessee Extension launched a strategic planning process to honor the past and look to the future. The strategic plan provided a roadmap to guide Extension to achieve excellence and focus attention on what matters most: advancing Extension in Tennessee. The plan resulted in five overarching goals that included strategies and action steps in order to achieve each goal. Two strategies included in plan were to evaluate and adopt cutting edge technologies and provide expert IT staff to support innovative technologies for teaching and learning.

Extension in Tennessee has a 100-year history of evolving to meet the changing needs of the state. The data collected to frame the strategic plan indicated trends that will shape our state over the next 10 years. One of the major trends identified was the increasing use of technology in all aspects of Tennesseans' lives and the need for Extension to evolve to meet the changing needs of clientele.

Purpose & Objectives

In 2012, a diverse team of Extension professionals was appointed and charged with improving IT user support and training. Specific objectives included:

- Develop network base level standards for county and region offices.
- Develop plans to enhance end-user training and support. Establish procedures for periodic reassessment of both.
- Develop workforce competencies.

Methodology

Network Speed Surveys

To establish network base level standards, Extension offices were asked to complete network speed surveys. Each office recorded their network speed multiple times throughout the day for a period of one week. An average of these recordings was captured to create a baseline for the speed available in each of the county offices. Additionally, the hardware being utilized was recorded to illustrate the variances in network components across the state.

OIT Help Desk Trial

As a first step to achieve the goal to enhance end-user support and training, the team analyzed the amount of time that regional IT specialists were devoting to routine desktop support. It became clear that regional IT specialists were spending the majority of their time handling desktop support issues, leaving little time for developing and offering IT training. The UT Knoxville Campus Office of Information Technologies (OIT) Help Desk supported end-users on the UT Knoxville campus but not UT Extension's geographically dispersed offices across the state. To see how the OIT Help Desk could support UT Extension, for a period of six months, county offices routed all IT support calls through the Office of Information Technologies (OIT) Help Desk. Upon completion of this trial, interested parties met to discuss the details and establish a path toward adoption.

Development of Workforce Competencies

The IT Initiative Team collaborated with Jackson State Community College to develop a set of IT competencies and an assessment to help determine individual training needs in some of the Microsoft Office products commonly used in county offices. A report containing recommendations was compiled and shared with Extension administration for consideration.

Major Outcomes

Network base level standards for county and region offices

A survey of the network speed in each county was conducted to establish a baseline for network capacity ensuring each county had the appropriate bandwidth to meet the needs of their clients. Upon completing this survey, the data was given to the University of Tennessee Institute of Agriculture Information Technology Services department for further review. A program called Strategic Holistic Integrated Enterprise Level Defense (known as SHIELD) was created and implemented across the state using the survey results as a starting point for implementation.

The SHIELD project's purpose was to standardize the network infrastructure across the state at UT Extension and UT AgResearch locations. During phase I of SHIELD, all network equipment, including router/firewalls, switches and wireless access points were replaced. In addition to standardizing the network hardware, a standard configuration was applied to all equipment, and centralized management was implemented for the router/firewalls and wireless network. A dedicated VPN connection to the Knoxville campus from each location was also established. Phase II of SHIELD leveraged the secure network to extend Active Directory, a system for managing individual machines, to each location.

Increased desktop support through UT Knoxville's OIT Helpdesk

UT Extension is made up of three regions across the state. Each region contains 31 to 33 counties with a total of 95 counties in all. Additionally, 4-H Centers, AgResearch and Education Centers and other similar entities make up the footprint in which six IT professionals offer support to approximately 1000 users. Each region houses two IT professionals. These two roles are IT Area Specialist and IT Administrator. The IT Area Specialist in each region is responsible for providing training on IT related topics to employees in the region. In addition to training, the IT Area Specialists assist the IT Administrators in addressing issues the staff may have with IT related functions.

In an effort to help manage this workload, specifically with "Helpdesk" type functions, UT Extension entered into an agreement with UT Knoxville's OIT Helpdesk that allowed employees in the county offices to utilize the OIT Helpdesk for common IT related issues. Most IT issues are now handled by the OIT Helpdesk, while some issues requiring specialized assistance are routed to the appropriate regional IT professionals for further support. Transferring some of this workload from the IT Area Specialist to the OIT Helpdesk has allowed IT Area Specialists to spend more time providing training on various IT products and systems used by UT Extension.

IT Competencies for Support Staff

As the need to be proficient in specific IT products has increased, the requirements for all staff to possess basic skills related to these products has become essential. The IT Initiative Team explored using IT competencies to identify training needs for support staff and to offer training to develop these skills.

Some components of this IT Competency project have been implemented in hiring practices across the state. For example, some regions require candidates for administrative support positions to complete a skills assessment based on products like Microsoft Word, Excel and PowerPoint to ensure each candidate can perform job duties successfully.

Sustainability Plan

Responsibility for sustaining the outcomes from this initiative reside with the Regional IT Staff and the Extension IT Coordinator, who is a member of the University of Tennessee Institute of Agriculture Information Technology Services (ITS) department.

2012-2015 Initiative Team

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