

STATE OF NORTH CAROLINA

APPALACHIAN STATE UNIVERSITY INFORMATION TECHNOLOGY GENERAL CONTROLS

OCTOBER 2010

PERFORMANCE AUDIT

OFFICE OF THE STATE AUDITOR

BETH A. WOOD, CPA

STATE AUDITOR

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Office of the State Auditor

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AUDITOR'S TRANSMITTAL

October 13, 2010

The Honorable Beverly Eaves Perdue, Governor The General Assembly of North Carolina Dr. Ken Peacock, Chancellor

This report presents the results of our performance audit of information technology general controls at Appalachian State University. Our audit was performed by authority of Article 5A of Chapter 147 of the *North Carolina General Statutes* and was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States.

The objective of this audit was to review the general controls as they pertain to the University's information technology. The results of our audit disclosed deficiencies that are considered reportable under *Government Auditing Standards*. These items are described in the Audit Findings and Responses section of this report, except those regarding access controls which due to their sensitivity are reported to you by separate letter pursuant to *North Carolina G.S. 147-64.6(c)(18)*.

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Beth A. Wood, CPA

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State Auditor

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BACKGROUND

Appalachian State University is located in Boone, North Carolina. The University was founded in 1899 as Watauga Academy. Over the years, the University evolved into a state teachers' college and then was transformed into a multipurpose regional university. In 1971, the University became a part of The University of North Carolina.

Information Technology Services (ITS) is under the leadership of the Chief Information Officer who reports to the Provost and Executive Vice Chancellor for Academic Affairs. Information Technology Services provides faculty, staff and students with the necessary technology resources to meet the instructional and administrative needs of the campus.

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OBJECTIVES, SCOPE, METHODOLOGY, AND RESULTS

OBJECTIVES, SCOPE, AND METHODOLOGY

As authorized by Article 5A of Chapter 147 of the *North Carolina General Statutes*, we have conducted a performance audit at Appalachian State University. The objective of this audit was to determine the effectiveness of general controls which influence the overall organization and operation of the University's information technology (IT). Our audit was conducted between September 28, 2009 and January 29, 2010.

The scope of our audit included the following IT general controls categories: general security, access controls, program maintenance, systems software, systems development, physical security, operations procedures, and disaster recovery, which directly affect Appalachian State University's computing operations.

To accomplish our audit objectives, we gained an understanding of University policies and procedures, interviewed key University administrators and other personnel, examined system configurations, tested on-line system controls, reviewed appropriate technical literature, and reviewed computer-generated reports.

As a basis for evaluating general controls, we applied the guidance contained in *Control Objectives for Information and Related Technology* (COBIT), created by the Information Systems Audit and Control Association and the IT Governance Institute. COBIT contains a widely accepted set of best practices in the field of information technology management.

University management, pursuant to North Carolina General Statute §143D-7, bears full responsibility for establishing and maintaining a proper system of internal control which includes IT general controls. A proper system of internal control is designed to provide reasonable, rather than absolute, assurance that relevant objectives are achieved. Because of inherent limitations in internal controls, unauthorized access to data, for example, may nevertheless occur and not be detected. Also, projections of our evaluation in this report of general controls to future periods are subject to the risk that, for example, conditions at the University may change or compliance with University policies and procedures may deteriorate.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

OBJECTIVES, SCOPE, METHODOLOGY, AND RESULTS (CONCLUDED)

RESULTS

The results of our audit disclosed general control deficiencies that are considered reportable under *Government Auditing Standards*. Deficiencies noted are as follows:

1. Failure to implement access controls in four critical areas.

Details about the deficiencies noted above, due to their sensitive nature were conveyed to University management in a separate letter pursuant to North Carolina G.S. 147-64.6(c)(18).

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