Internal Audit Report

Division of Information Technology

# IT Security Audit

October 2023


Baltimore County Public Schools
Office of Internal Audit

Andrea M. Barr, CGAP, CBM
Chief Auditor

Executive Summary

October 2023

*Division of Information Technology*

# IT Security Audit

**Background**

The Division of Information Technology (DoIT) provides technological services, support, resources, and supports student learning and day-to-day operations for BCPS.

**Objective**

To assess Baltimore County Public Schools (BCPS) information technology internal control environment and to develop recommendations for improvement.

**Results In Brief**

We identified six findings related to cybersecurity, as defined by the State Finance and Procurement Article, Section 3A-301(b) of the Annotated Code of Maryland, and therefore are subject to redaction from the publicly available report in accordance with the State Government Article, Section 2-1224(i). Consequently, the specifics of the following findings, including the analysis, related recommendations, along with management responses, have been redacted from this report copy.

# Contents

# BACKGROUND

### Organizational Status & Information

The Division of Information Technology consists of four separate offices:

- Instructional Technology - supports software needs of BCPS.
- Network Support Services - provides data, voice and cloud network infrastructure, services, and user management.
- Technology Support Services – provides service and support for BCPS technology needs, which includes an IT Help Desk and repair services.
- Instructional Technology Governance – implements and oversees security controls over BCPS network and cloud environment.

### Regulations

Technology security measures for BCPS are evaluated against standards from the State of Maryland Information Technology Security Manual, v1.2, the National Institute of Standards and Technology (NIST), and Control Objectives for Information and Related Technologies (COBIT).

Technology security measures for BCPS employees are defined by Board Policy and Rule 4100 – Conduct – Employee Conduct and Responsibilities as well as Board Policy and Rule 4104 – Conduct – Acceptable Use Policy for Technology and Social Media (TAUP) for Authorized Users.

# RESULTS

### Finding 1: Redacted cybersecurity-related finding

### Finding 2: Redacted cybersecurity-related finding

### Finding 3: Redacted cybersecurity-related finding

### Finding 4: Redacted cybersecurity-related finding

### Finding 5: Redacted cybersecurity-related finding

### Finding 6: Redacted cybersecurity-related finding

# OBJECTIVE, SCOPE & METHODOLGY

**Objective**

The objective of this audit assesses the BCPS information technology internal control environment and an examination of findings cited in recent external audits.

**Scope**

The audit period is FY22 – FY23.

**Methodology**

To achieve the audit objectives, we performed the following:

- Planned the audit in cooperation with the Department of Information Technology staff to ensure an understanding of BCPS information technology security measures.
- Interviewed key personnel knowledgeable of the information technology security processes.
- Reviewed relevant Board policies and Superintendent's rules, as well as standards from the State of Maryland, NIST, and COBIT related to technology security measures.
- Evaluated risks and controls over information technology security.
- Conducted a review to support our conclusions.
    - We worked with BCPS DoIT staff to complete a questionnaire related to BCPS' information technology security based on the NIST Cybersecurity Framework.
    - We selected a sample from the questionnaire and reviewed and evaluated supporting evidence for responses related to:
        - Asset management
        - Risk assessment
        - Identity management
        - Awareness and training
        - Data security
        - Protective technology
        - Anomalies and events
        - Security continuous monitoring