

Effective: January 11, 2024

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I. Policy Value Statement

The Board of Education of Howard County (Board) recognizes the value of technology security throughout the Howard County Public School System (HCPSS). The Board values the need for a clear and consistent technology security policy, in compliance with legal and regulatory mandates, that promotes awareness and communicates expectations for safeguarding and securing HCPSS technology.

II. Purpose

The purpose of this policy is to provide requirements for maintaining the confidentiality, integrity, availability, and accountability of HCPSS technology resources and data. The policy will address protection of HCPSS technology, account credentials, technology equipment accountability, network security, physical security, configuration management, and data security.

III. Standards

- A. Protection of HCPSS Technology
 - 1. HCPSS reserves the right to take all necessary legal action to protect the confidentiality, integrity, availability, and accountability of its technology.

2. HCPSS reserves the right to take all necessary legal action to prevent its technology from being used to attack, damage, harm, or exploit others.
3. Use of HCPSS technology or non-HCPSS technology to gain or attempt to gain unauthorized access to any HCPSS system or information is prohibited.
4. Use of HCPSS technology to gain or attempt to gain unauthorized access to any non-HCPSS system or information is prohibited.
5. HCPSS reserves the right, in accordance with legal and regulatory mandates, to monitor, archive, audit, or purge the contents of electronic communications, files, and other material created or stored using HCPSS technology, or data transmitted over HCPSS networks.
6. HCPSS reserves the right, in accordance with legal and regulatory mandates and as authorized by the Superintendent/designee, to access or disclose, for investigative purposes, the contents of electronic communications, files, and other material created or stored-using HCPSS technology or data transmitted over HCPSS networks.
7. Failure by any individual using HCPSS technology to comply with this policy will result in the temporary or permanent restriction of technology access privileges, in addition to any applicable disciplinary actions or financial obligations.
8. HCPSS will maintain technology security incident response procedures in support of this policy and regulatory mandates including Maryland breach notification requirements.

B. Account Credentials

1. Individuals using HCPSS technology will authenticate using individual account credentials. Exceptions will be approved by the Superintendent/designee and documented.
2. Individuals are prohibited from sharing HCPSS-assigned account credentials unless permitted, in writing, by the Superintendent/designee.
3. Individuals are granted access to HCPSS data and online resources based on a least privilege methodology.
4. Access to HCPSS technology, granted by virtue of the individual's role, will be terminated when the individual's role is fulfilled or terminated.
5. Individuals may be required to use multi-factor or other enhanced authentication methods to access HCPSS systems.

6. Access to service accounts and other non-user accounts will be restricted to only designated HCPSS employees, and these credentials will be stored securely with limited access.

C. Technology Equipment Accountability

1. All HCPSS technology equipment will be accounted for and tracked by location and functionality in an automated system before distribution.
2. HCPSS technology equipment will be audited periodically to ensure consistency and accuracy of the automated inventory system.
3. All HCPSS technology equipment must be disposed of in accordance with the National Institute of Standards and Technology (NIST) published standards.

D. Network Security

1. All HCPSS technology networks will be designated as open or restricted.
 - a. Restricted HCPSS technology networks will be configured to protect against unauthorized access.
 - b. Individuals are prohibited from connecting non-HCPSS technology to restricted HCPSS networks without prior written approval from the Superintendent/designee.
 - c. Individuals may connect non-HCPSS technology to open wireless HCPSS technology networks in accordance with Policy 8080 Responsible Use of Technology, Digital Tools, and Social Media.
2. HCPSS will employ banner text, where practical, to provide notice of legal rights and responsibilities to individuals using HCPSS technology.

E. Physical Security

1. Physical access to HCPSS data centers, main distribution frames (MDFs), and intermediate distribution frames (IDFs) will be controlled to prevent and detect unauthorized access to these areas. Access to these areas will be granted to those persons who have legitimate responsibilities in those areas.
2. All HCPSS data centers will be secured using technologies that monitor individual access and provide auditable access logs.
3. Individuals responsible for HCPSS technology must take reasonable steps to ensure the physical security of HCPSS technology.

F. Configuration Management

1. HCPSS technology systems will be evaluated for appropriate security controls and approved by the Superintendent/designee.
2. HCPSS technology systems will be monitored to confirm configuration and to determine the effectiveness of security controls.
3. Changes to HCPSS technology systems will be evaluated, approved, and documented by the Superintendent/designee.

G. Data Security

1. Methods for transmitting and storing student education records, personnel records, or confidential data electronically will be reviewed and approved by the Superintendent/designee.
2. Personally Identifiable Information (PII) will be secured and any unauthorized disclosures of PII will be document and provided to the Superintendent and the Board set forth by the guidelines in Policy 3050 Records Management and Policy 3060 Student Data Governance and Privacy.

IV. Responsibilities

- A. The Superintendent/designee will maintain guidelines for secure configuration of HCPSS technology.
- B. The Superintendent/designee will maintain a process for creating, managing, and documenting account credentials.
- C. The Superintendent/designee will inform HCPSS technology users regarding the provisions of this policy at least annually.
- D. The Superintendent/designee will provide to the Board annually, a report evaluating technology security policy implementation.

V. Delegation of Authority

The Superintendent is authorized to develop appropriate procedures for the implementation of this policy within the limits set forth by this policy.

VI. Definitions

Within the context of this policy, the following definitions apply:

- A. Account Credentials – Any data or object used specifically for the purpose of gaining access (authenticating) to an electronic system, usually a username and password combination.
- B. Authentication – Verification of an individual’s identity through username/password or other mechanism.
- C. Banner Text – The notification sent to a user prior to authentication on a system.
- D. Confidential Data – Individual, fact, statistic or item of information whereby access is restricted based on least privilege.
- E. Data Center – A dedicated area of a building that supplies the electrical necessities and environmental conditions required to operate servers, network technology, and other HCPSS electronic systems.
- F. Digital Tool – Any website, application (app), or software that requires an account.
- G. Intermediate Distribution Frame (IDF) – A non-primary distribution area for data cables from the main distribution frame.
- H. Least Privilege – The methodology whereby each user is assigned only the appropriate level of access to data needed for their responsibilities.
- I. Main Distribution Frame (MDF) – The primary distribution area for connecting HCPSS equipment to subscriber carrier equipment.
- J. Network – The physical means of transmitting data between computer systems; includes wired and wireless technologies.
- K. Online Resource – Any website, application (app), or software that does not require an account.
- L. Personally Identifiable Information (PII) – Any information that, alone or in combination, would make it possible to identify an individual with reasonable certainty.
- M. Technology – Electronic devices, network infrastructure, or applications including but not limited to software, online resources, digital tools, social media, and email.

VII. References

- A. Legal
 - Electronic Communications Privacy Act/Stored Communications Act, 18 U.S.C. §2701-2712
 - Family Educational Rights and Privacy Act (FERPA), 20 U.S.C. §1232(g)
 - Title XVII, Children’s Internet Protection Act, 47 U.S.C. §254(h) and (l)
 - Md. Code Ann, Com. Law §§ 14-3501 *et seq.* (2016) (Maryland Personal Information Protection Act)
 - Md. Code Ann, State Govt. §§ 10-1301 to 10-1308 (2017) (Protection of Information by Government Agencies)
 - Md. Code Ann, Education §4-131 (2015)

- B. Board Policies
 - Policy 2070 Ethics
 - Policy 4040 Fixed Assets
 - Policy 3050 Records Management
 - Policy 3060 Student Data Governance and Privacy
 - Policy 7010 Personnel Records
 - Policy 7030 Employee Conduct and Discipline
 - Policy 8080 Responsible Use of Technology, Digital Tools, and Social Media
 - Policy 8120 Testing: State and Local Responsibilities and Protocols
 - Policy 9020 Students’ Rights and Responsibilities
 - Policy 9030 School-Sponsored Publications and Productions
 - Policy 9050 Student Records
 - Policy 9200 Student Discipline
 - Policy 10010 Distribution and Display of Materials and Announcements
 - Policy 10020 Use of School Facilities

- C. Relevant Data Sources
 - Central Inventory Database
 - Help Desk Database
 - Information Technology Audit Logs

- D. Other
 - Data Center Access Procedures
 - HCPSS Device Agreement Form
 - HCPSS Student Code of Conduct
 - Information Technology Change Management Guideline
 - National Institute of Standards and Technology (NIST) Special Publication 800-88 Guidelines for Media Sanitization
 - Office of Security Management Maryland Minimum Cybersecurity Standards Version 1.0 Issued May 22, 2023
 - Request for Computer User Account Form
 - Technology Security Incident Handling Form

The State of Maryland (SOM) Information Technology Security Manual, Version 1.2
Issue June 2019
The State of Maryland Information Technology (IT) Disaster Recovery Guidelines,
Version 4.0 Issued July 2006

VIII. History¹

ADOPTED: March 11, 2010
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¹ Key: **Adopted**-Original date the Board took action to approve a policy; **Reviewed**-The date the status of a policy was assessed by the Superintendent's Standing Policy Group; **Modified**-The date the Board took action to alter a policy that based on the recommendation of the Superintendent/designee did not require a comprehensive examination; **Revised**-The date the Board took action on a policy that based on the recommendation of the Superintendent/designee needed a comprehensive examination; **Effective**-The date a policy is implemented throughout the HCPSS, typically July 1 following Board action.

TECHNOLOGY SECURITYEffective: January 11, 2024

I. Dissemination of Information

- A. Notification of the provisions of this policy and these implementation procedures will be given annually, and as otherwise required, to all students, families, Howard County Public School System (HCPSS) employees, and service providers. Methods may include:
1. Publications in school and HCPSS newsletters, handbooks, and other documents.
 2. Notifications posted in areas that provide access to technology (e.g., media center, computer lab, classrooms, and staff workroom).
 3. Notifications posted on school and HCPSS websites, including but not limited to, the learning management system and the staff communication tool.
 4. Ongoing notification/reviews for students by classroom teachers, media specialists, or other appropriate HCPSS employees.
 5. Inclusion, whenever possible and appropriate, into the process of accessing digital tools and/or files.
 6. Periodic announcements in schools over the public address system at the beginning of the school year and at other times as appropriate.
- B. Principals are responsible for notifying all students, families, HCPSS employees, volunteers, contractors, and interns in their schools of the responsibilities of use of HCPSS technology at the beginning of the school year, with reminders as necessary.
- C. Department supervisors are responsible for notifying those under their supervision of the provisions of this policy and these implementation procedures.
- D. The Office of School Facilities is responsible for notifying individuals or organizations seeking to use HCPSS technology as part of an agreement to use school system facilities (Policy 10020 Use of School Facilities) of the provisions of this policy and these implementation procedures.

- E. The Office of Safety and Security in collaboration with the Department of Information Technology and the Office of Strategy and Data Privacy are responsible for providing annual Data Privacy, Security Awareness, and Phishing Training for all HCPSS employees.
- F. Security notifications and advisory information will be published for relevant audiences through various media including but not limited to the learning management system, the staff communication tool, and HCPSS websites.

II. General Procedures

A. Electronic Communications

1. Individuals will have no expectation of personal privacy or confidentiality of any electronic communication when using HCPSS technology.
2. HCPSS technologies that store or transmit HCPSS employee data, student record data, financial data, or other legally confidential data will implement appropriate authentication and encryption technologies to prevent unauthorized access or modification.
3. Individuals using HCPSS technology will ensure that both their usage and electronic communications content are in compliance with all other HCPSS policies.

B. Online Testing

1. For security purposes, all online testing will be conducted in accordance with the state, local, and vendor-specific guidelines, policies, and procedures.
2. All data saved to computers and servers for online testing administration and execution will be deleted in accordance with the state, local, and vendor-specific guidelines, policies, and procedures.
3. All HCPSS employees and contracted staff users will receive Information Technology Security Training at least annually and will be tested on a regular basis.

C. Security Vulnerability Assessments

1. The Superintendent/designee will coordinate annual technology security vulnerability assessments consistent with industry best practices and in compliance with regulatory mandates.
2. HCPSS may contract with third party companies or individuals to perform external security vulnerability assessments and penetration tests.

D. Technology Security Incident Response

1. The Superintendent/designee will document the Technology Security Incident Response procedures.
2. All HCPSS technology security investigations will be authorized by the Superintendent/designee.
3. HCPSS will monitor HCPSS technology for potential security incidents.
4. HCPSS reserves the right to access, record or, if necessary, remove content stored in an individual's assigned account on HCPSS technology with prior written approval from the Superintendent/designee.
5. HCPSS reserves the right to restrict or remove any device suspected of contributing to a security incident.
6. The Superintendent/designee will document all HCPSS technology security investigations.
7. The Superintendent/designee will conduct all HCPSS technology security incident investigations in strict confidence.
8. Investigations into incidents involving a potential breach of an individual's private data will include the following:
 - a. Notifications to individuals will be required if it is determined that an individual's personal information has been breached and misuse has occurred or is likely to occur.
 - b. If 1,000 or more individuals are involved in a breach notification, the HCPSS will also notify each consumer reporting agency as defined by 15 U.S.C. § 1681a(p), of the timing, distribution, and content of the notices.
 - c. If misuse is not likely to occur, as in cases where the information breached was protected by encryption and there is no evidence the encryption key had been compromised or disclosed, notifications to individuals will not be required.
 - d. HCPSS will maintain records on determinations for data breach notifications for three years after the determination has been made.

E. Storage Media Handling and Disposal

1. Access to HCPSS storage media including, but not limited to, magnetic tapes, hard disks, CDs, DVDs, USB memory sticks, cloud storage, etc., will be secured utilizing the least privileges methodology.
2. All service to HCPSS computers and servers will be performed onsite by authorized HCPSS employees or authorized contractors. If a computer or server must be taken offsite for service, all hard drives, CDs, and DVDs will be removed prior to the equipment leaving the premises. If removal of any/all hard disks, CDs, or DVDs is not feasible, prior approval will be obtained in writing by the Superintendent/designee to remove the equipment.
3. All HCPSS storage media including, but not limited to, hard disks, CDs, DVDs, USB memory sticks, etc., will be disposed of in accordance with the National Institute of Standards and Technology (NIST) Special Publication 800-88.

F. Systems Development Life Cycle

1. All HCPSS systems and applications will be developed or procured in compliance with all legal regulatory mandates.
2. When feasible, all HCPSS systems and applications will employ the latest software versions and patch levels to ensure maximum functionality and security.
3. All HCPSS application training and testing data will not include confidential or personally identifiable information (PII).
4. All HCPSS application and HCPSS system source code will be managed in a controlled, auditable environment, and secured utilizing the least privileges methodology.
5. Changes to HCPSS technology will be evaluated, approved, and documented in accordance with the Information Technology Change Management Guideline.
6. HCPSS systems will be designated as either critical or non-critical.
7. HCPSS systems will be designated as containing PII if the system retains PII.
8. Disaster Recovery procedures will be maintained and tested for all critical HCPSS systems.

G. System Security

1. HCPSS will employ technology security measures, including monitoring, to ensure the confidentiality, integrity, availability, and accountability of its technology and data.
2. Open wireless networks will be configured to notify users of network monitoring capabilities and the provisions of HCPSS Policy 8080 Responsible Use of Technology, Digital Tools, and Social Media.
3. All publicly accessible HCPSS systems will be located in a separate dedicated network segment configured to restrict access to internal trusted networks.
4. Publicly accessible critical HCPSS systems will be monitored by an automated vulnerability assessment system at least weekly to confirm configuration and determine the effectiveness of implemented security controls.
5. Critical HCPSS systems will maintain audit logs to track user activity and actions that are administratively prohibited. Audit logs will be reviewed at least weekly.
6. Individuals will not attempt to circumvent, modify, or disable technology security measures implemented by the HCPSS.
7. Maintenance and repair of HCPSS systems may only be performed by authorized HCPSS employees and authorized vendors.
8. Wireless access points will be configured utilizing at least Wi-Fi Protected Access (WPA) encryption. Exceptions will be approved by the Superintendent/designee.

H. Account Credential Assignment and Use

1. Account Credential Assignment
 - a. HCPSS employees will be assigned individual account credentials once employment with the HCPSS has been verified.
 - b. Students will be assigned individual account credentials once enrollment in the HCPSS has been verified.
 - c. Contractors, volunteers, interns, and others will be assigned individual account credentials upon approval of the Request for Computer User Account Form.

- d. Password length and complexity requirements will be established for each system in order to prevent unauthorized access to or modification of confidential data.
 - e. Temporary account passwords will be unique to the individual recipient and will be changed by the individual upon next login.
 - f. Account credentials are granted in accordance with an individual's role and will be revoked when the individual's role is fulfilled or terminated.
2. HCPSS Employee's Individual Account Credential Assignment
- a. Passwords will not be the same as the account username.
 - b. Passwords will not be shared with others.
 - c. Passwords will be a minimum of eight characters consisting of mixed alphabetic and numeric characters.
 - d. Passwords will be evaluated regularly against publicly available password compromise databases.
 - e. Password changes may be required at various intervals, depending on the system.
 - f. Password reuse will be prohibited by not allowing the last 10 passwords to be reused with a minimum of at least two days each.
 - g. HCPSS employee accounts associated with a password will be restricted after six unsuccessful login attempts.
 - h. All HCPSS employee accounts will be disabled after 60 days of inactivity unless prior approval is obtained from the Superintendent/designee.
 - i. HCPSS employee are required to use Multi-Factor Authentication for access to select HCPSS systems.
 - j. HCPSS reserves the right to modify HCPSS employee account credentials upon change in employment status, as directed by the Superintendent/designee.
3. Student Account Credentials
- a. Passwords will not be the same as the account username.
 - b. Passwords will not be shared with others.

- c. Passwords will be a minimum of six characters consisting of mixed alphabetic and numeric characters. Exceptions may be allowed based on demonstrated need.
 - d. Password changes will be required at various intervals, depending on the system.
 - e. Password reuse will be prohibited by not allowing the last 10 passwords to be reused with a minimum of at least two days each.
 - f. HCPSS reserves the right to disable student accounts.
4. Contractor Account Credentials
- a. All contractor accounts must have an assigned HCPSS employee sponsor.
 - b. Contractor accounts may include the contractor's email address to facilitate communication.
5. Shared Account Credentials (credentials used by more than a single individual)
- a. HCPSS may create shared account credentials in support of specific tasks with the approval of the Superintendent/designee.
 - b. Shared accounts will only be used for the specific tasks for which they were intended.

III. HCPSS Technology Equipment Accountability

- A. Physical inventory of Information HCPSS Technology equipment will be performed.
- B. Principals/supervisors will ensure that HCPSS Technology equipment inventory will be completed on an annual basis.

IV. Violation of Policy

- A. Any individual who suspects a violation of this policy or these implementation procedures will report the alleged violation to an appropriate administrator or supervisor for investigation.
- B. The administrator or supervisor will report the suspected violation to the Superintendent/designee for further investigation and potential disciplinary action.

- C. In cases that may be criminal in nature (threats, stalking, harassment, etc.) or that may pose a safety threat, an investigation will be conducted in consultation and cooperation with the Superintendent/designee.
- D. In cases of probable or potential harm to an individual, appropriate follow-through and communication with the individual in danger and others who are in a position to protect that individual from harm including, but not limited to law enforcement, if necessary, must be undertaken by the individual who discovers the probable or potential harm.
- E. Suspicious activity can be reported anonymously through the HCPSS main website - Reporting Fraud and Abuse. Reports can also be emailed directly to abuse@hcpss.org.

V. Definitions

Within the context of these implementation procedures, the following definitions apply:

- A. Cloud Computing – The on-demand availability of online resources, digital tools, data storage, computing power, and technologies over the Internet to offer faster innovation and flexible resources.
- B. Cloud Storage – Cloud computing model that stores data on the Internet through a provider who manages and operates data storage as a service which provides agility, global scale and durability, with “anytime, anywhere” data access.
- C. HCPSS Employee – Any individual who is a permanent or temporary employee of the HCPSS whose compensation is paid in whole or part by the Board, including but not limited to, teachers, substitute teachers, paraeducators, and other school-based and Central Office support staff.
- D. Multi-Factor Authentication – Authentication method that requires the user to provide two or more verification factors to gain access to a digital tool, online resource, or technology.

VI. Monitoring

Policy 3040 implementation procedures will be overseen by the Division of Administration.

VII. History¹

ADOPTED: March 11, 2010
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