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Dr. Brian Bailey-Interim Superintendent

Hudson City School District Smart Schools Bond Investment Plan

Approved by the Hudson City School Board of Education

August 5, 2025



Questions regarding the SSIP should be directed to:

Email address: SmartSchoolsInvestmentPlan@hudsoncsd.org

Dr. Brian Bailey-Interim Superintendent

Ms. Christy Ferri-Executive Director for Business & Finance

Ms. Cheryl Rabinowitz-Manager of Instructional Technology

Mr. Tyler Kritzman-Director of Facilities

Email: SmartSchoolsInvestmentPlan@hudsoncsd.org

Hudson City School District Central Office

215 Harry Howard Avenue

Hudson, NY 12534

Phone: 518-828-4360 ext. 2119

Hudson City School District Smart Schools Bond Investment Plan Overview

Preliminary Smart Schools Investment Plan Overview

The Smart Schools Bond Act was passed in the 2014-15 Enacted Budget and approved by the voters in a statewide referendum held during the 2014 General Election on Tuesday, November 4, 2014. The Smart Schools Bond Act (SSBA) authorized the issuance of \$2 billion of general obligation bonds to finance improved educational technology and infrastructure to improve learning and opportunity for students throughout the State. The SSBA requires that a Review Board review and approve districts' Smart Schools Investment Plans before any funds may be made available for the program. All District plans approved by the school board and submitted to the New York State Education Department must meet the required elements including demonstrating students' needs, minimal speed requirements for internet connectivity, professional development, technical support, and sustainability. As part of the process, districts are required to submit a District Instructional Technology Plan survey in compliance with the Education Law and Commissioner's Regulation.

Over the past several years, the Hudson City School District (HCSD) has made significant technology infrastructure improvements across its three school buildings: Montgomery C. Smith Elementary School, Hudson Junior High School, and Hudson High School. These upgrades have established a strong foundation to support computer-based testing (CBT), integrate instructional technology into teaching and learning, and increase productivity for staff and administrators.

Infrastructure Improvements

Improvements were funded through a combination of General Funds, E-Rate funding, COVID-19 relief funds, and grants. Key upgrades include:

- Modernizing network infrastructure equipment
- Installing new servers, racks, and cabinets
- Increasing electrical capacity and implementing cooling systems
- Upgrading uninterruptible power supplies (UPS)
- Increasing network speeds between network closets
- Installing a backup generator to support the District's server room and network closets
- Providing one-to-one Chromebooks for all students and one-to-one laptops/Chromebooks for all staff

Internet Connectivity

The District transitioned its Internet Service Provider to a contract with the Northeastern Regional Information Center (NERIC). This service provides high-throughput, high-performance internet access that:

- Meets and exceeds the FCC standard of 100 Mbps per 1,000 students and staff
- Is available 24/7 and guaranteed during high-demand periods such as CBT
- Provides a 1-gigabit Ethernet connection with the ability to scale bandwidth as needed

Planned Upgrades Using Smart Schools Bond Act Funding

1. School Connectivity (\$559,169.27)

While external internet connectivity meets FCC standards, portions of the District's internal wireless and cabling infrastructure are outdated. Funding will allow HCSD to:

- Upgrade or replace network cabling to support wireless access, security cameras, PA systems, and phone systems
- Upgrade or replace wireless access points to support mobile devices, CBT, staff productivity, and guest Wi-Fi

These upgrades will increase network capacity, reliability, and performance, ensuring equitable access to digital instructional resources and fully supporting the District's one-to-one device programs.

2. High-Tech Security Features (\$1,160,118.95)

Funding in this category will allow HCSD to:

a. Upgrade or replace security cameras for real-time monitoring and post-incident review

- Provides real-time situational awareness, allowing administrators and security staff to respond immediately to threats
- Supports post-incident investigations and accountability with high-definition recordings
- Integrates with other systems, such as VoIP phones and door access, for visual verification during emergencies
- Acts as a deterrent to unauthorized access or unsafe behavior

b. Upgrade or replace clocks and public address (PA) systems for synchronized emergency announcements

- Ensures consistent, district-wide communication during emergencies

- Integrates with VoIP phones and alarm systems for automatic lockdown, evacuation, or severe weather notifications
- Allows coordinated response across multiple buildings simultaneously aligned with NYSED Standard response proto

c. Implement door access control systems to restrict entry and enhance safety

- Restricts access to authorized personnel only, reducing risk of intruders
- Allows remote control during emergencies, supporting lockdowns or evacuations
- Integrates with cameras and alarms for rapid situational awareness
- Provides historical access logs for accountability and investigations

d. Upgrade or replace the phone system with a modern VoIP (Voice over Internet Protocol) system

- Provides rapid, location-specific emergency alerts to administrators, security, and first responders
- Integrates with cameras, door access controls, PA systems, and mass notification tools for a unified safety network
- Supports staff mobility through mobile apps and ensures communication continuity during power or network outages
- Maintains call logs and recordings for post-incident review and accountability

Voice IP Phone System: A VoIP (Voice over Internet Protocol) system can significantly improve **safety in a school system** by enhancing communication, coordination, and emergency response.

1. Faster Emergency Communication

- **Instant alerts:** Staff can quickly broadcast voice announcements or automated messages across classrooms, offices, and even mobile devices during emergencies (e.g., lockdowns, evacuation, severe weather).
- **Emergency dialing:** VoIP systems can automatically route 911 calls with location data, so emergency responders know **exactly which room or building** the call came from.

2. Integration with Safety Systems

- **Integration with PA and alarm systems:** VoIP phones can trigger or connect directly with **intercoms, alarms, and mass notification systems**, ensuring consistent messaging across all communication channels.
- **Door access and cameras:** Some VoIP systems integrate with **security cameras and door control systems**, allowing front office staff to visually confirm visitors and remotely unlock doors.

3. Mobility and Reachability

- **Mobile apps for staff:** Teachers, administrators, and security personnel can receive emergency notifications or join conference calls even if they're not near a desk phone.
- **District-wide coordination:** Central administration can communicate instantly with all schools in the district, ensuring consistent information sharing during crises.

4. Improved Accountability and Recordkeeping

- **Call logs and recordings:** VoIP systems can record and log calls, providing a **verifiable record** for incident reviews or investigations.
- **Automated alerts:** Missed emergency calls or alarms can trigger follow-up alerts to ensure nothing is overlooked.

5. Resilience and Redundancy; Cloud-based reliability: In a power or network outage, VoIP systems with cloud hosting can reroute calls to **cell phones or backup locations**, maintaining communication when traditional lines might fail.

Example Scenario

If a teacher notices an intruder:

1. They press a dedicated emergency button on their VoIP phone.
2. The system instantly alerts administrators, security, and police—showing the caller's room number.
3. A lockdown announcement automatically plays over the intercom.
4. Staff receive updates via phone, email, or app notifications.

VoIP Safety

1. Objectives

- Ensure rapid, reliable communication in any emergency.
- Integrate safety systems (alarms, intercoms, cameras) with VoIP for coordinated response.
- Maintain contact between schools, district offices, and emergency services.
- Provide clear communication channels for staff, students, and first responders.

2. System Design and Infrastructure

VoIP Network Setup

- **Cloud-based VoIP** or **hybrid (on-site + cloud)** setup for redundancy.
- **Power-over-Ethernet (PoE)** phones to stay powered during outages (with backup generators or UPS).
- Prioritize network bandwidth for emergency calls (QoS configuration).

Device Deployment

Location	VoIP Device	Purpose
Classrooms	Basic VoIP phone or wall intercom	Direct call to front office / emergency alert
Front Office	Advanced console phone	Call routing, paging, video verification
Administration	Softphone on computer/mobile	District-wide coordination
Security / SROs	Mobile VoIP app + radio integration	Rapid response, mobility
Custodial & Maintenance	Rugged VoIP or wireless handset	Coordination during evacuation or lockdown

3. Integration with Safety Systems; Emergency and Notification Systems

- **Mass notification integration:** VoIP connects to PA/intercom and text/email alert systems.
- **Automated alerts:** Pre-recorded lockdown or evacuation messages triggered from phones.
- **Alarm linkage:** Fire alarms or panic buttons automatically initiate announcements over VoIP.

Smart Features

- **Location-based 911 routing:** Automatically send the caller's exact classroom/building.
- **Security camera pop-ups:** When a VoIP emergency button is pressed, cameras display the area on security screens.
- **Door access integration:** Office VoIP phones display video and unlock doors after identity verification.

Emergency Communication Protocols

A. Lockdown / Intruder

1. **Teacher/Staff Action:** Press “Emergency” or “Panic” button on VoIP phone.
2. **System Response:**
 - Sends location-based alerts to admin/security.
 - Plays lockdown message district-wide.
 - Notifies law enforcement automatically.
3. **Follow-up:** Two-way voice communication open with front office or dispatch.

B. Fire / Evacuation

1. **Alarm triggered:** VoIP phones display evacuation instructions.
2. **PA announcement:** VoIP-PA system plays recorded fire drill message.
3. **Check-in:** Teachers report safe status via phone or VoIP app.

C. Severe Weather / Natural Disaster

1. **The district command center** uses a VoIP console to send simultaneous alerts.
2. **Automated message** to staff, parents, and buses (via SMS/VoIP integration).
3. **Follow-up voice briefings** with principals for updates.

5. Training and Drills

- **Quarterly VoIP emergency simulations** (lockdown, evacuation, severe weather).
- **Staff training** on using emergency call buttons, paging, and mobile VoIP apps.
- **Post-incident reviews:** Use call logs and recordings to analyze response times.

6. Maintenance and Security

- **Regular testing** of emergency call buttons and PA integration.
- **Cybersecurity measures:** Encrypted calls, strong authentication, network segmentation.
- **Backup plan:** Cellular failover and alternate communication apps if VoIP fails.

7. Benefits Summary

- Faster, location-aware emergency response
- Seamless coordination across district sites
- Reliable communication even during outages
- Comprehensive call and alert tracking for accountability
- Integration with alarms, cameras, and door systems

Integrated Impact:

By upgrading security cameras, VoIP phones, door access systems, and PA/clock systems, HCSD creates a **coordinated, networked security ecosystem** that ensures:

- Rapid alerting and emergency response
- Enhanced situational awareness for staff and first responders
- Seamless communication and coordination across all school buildings
- Comprehensive recordkeeping for accountability

Compliance and Alignment

Upon completion, all District buildings will fully meet or exceed the FCC connectivity standard, providing high-performance network access to all students and staff. Upgrades will be completed within 12 months of plan approval, ensuring compliance with Smart Schools Bond Act requirements.

The Smart Schools Investment Plan aligns with **District Technology Plan Goal 4**, which emphasizes a fully functioning, robust, equitable, and secure technology network. Upgrades to wireless access points, administrative software, security cameras, phone systems, and PA/clock systems will strengthen this network, protecting students, staff, and visitors while enhancing emergency preparedness across the District.

Budget Summary:

Category	Purpose	Cost
School Connectivity	Wireless/cabling upgrades for devices, CBT, productivity	\$559,169.27
High-Tech Security Features	VoIP phones, security cameras, door access, PA/clock systems	\$1,160,118.95
		\$1,719,288.22

Process/Timeline:

- Held multiple meetings with Stakeholders: [District Technology Committee/Smart Schools Investment Plan Committee Members](#) (Conducted needs Assessment, Hosted Demonstrations, Walkthroughs, made Recommendations & developed a Smart Schools Improvement Plan (SSIP)) for Focus Areas: *High Tech Security Features & School Connectivity* that is aligned with the [District Technology Plan](#)
- Submitted Letter of Intent to NYSED
- Received Project number from NYSED
- Entered Smart Schools Investment Plan into the NYSED Portal. A copy of the [Smart Schools Plan Information](#) Submitted in Portal
- The Hudson City School District Presented an
 - [Overview Smart Schools Presentation to BOE and Community](#) at BOE January 7th, 2025.
 - On [May 20th, 2025, there was a Smart Schools Investment Plan Presentation](#) to BOE of the Smart Schools Investment Plan.
 - A letter was sent on May 21, 2025, to families and staff.
 - On [June 25th BOE Meeting](#) presented Plan-Open Up for Public Comment.

- **There was a 30 day plus comment period. An email address is set up for any written comments and/or questions about the plan. They were sent to: SmartSchoolsInvestmentPlan@hudsoncsd.org**
- **After the 30 days, the School Board conducts a Public hearing, on or about August 5, 2025, that enabled school community stakeholders to ask more questions/comments about the SSIP plan. The BOE Voted on a Resolution to accept the plan.**
- **The final plan was posted on the district's website and was submitted through the NYSED portal after the August 5, 2025, BOE Meeting.**
- **A copy of NYSED's Smart Schools Investment process can be found [here](#).**
- **A copy of the [areas for approved expenditures](#).**
- **A copy of the District Safety Plan can be found [here](#).**
- **A copy of the District Technology plan can be found [here](#).**