

# **Milwaukee Public Schools**

## **Technology Standards**

*Updated September 2025*

The purpose of the Technology Standards is to inform prospective Vendors of the District's technical standards and capabilities. The Technology Standards are not meant to be a deterrent to prospective Vendor solutions, however, integration with existing systems is key to a successful implementation. Deviation from these standards must be approved by the Department of Technology. Solutions that most closely align with these standards will receive preferential scoring when procured as part of an RFI or RFP.

### **Software / Architecture**

SaaS (Software as a Service) delivered applications are required. MPS will not support any solution that requires MPS to supply a physical or cloud-hosted environment to deliver the vendor's solution. Any exceptions to this policy are made at the sole discretion of the Department of Technology.

- Browser-based applications are required and should be fully functional using the Google Chrome browser. The primary device used in schools for all students and some staff is a Chromebook.
- For proposed solutions requiring application installation on Windows workstations, the Vendor must be willing to work with MPS staff to develop a software delivery and update process through the district's software library (currently Microsoft SCCM).
- The vendor is responsible for maintaining all security and updates for the delivery of the application.
- The proposed solution must show evidence of regular software vulnerability patching and application development.

### **Rostering/Single Sign-On**

For student applications, the proposed solution must have an existing Clever integration, or be willing to develop a Clever integration, for automated rostering and single sign-on.

- More information is available at <https://www.clever.com/partners>
- Vendor must provide a copy of their Clever Certification letter, if applicable.
- Our district uses many products that offer single sign-on via the Clever Portal and applications are preferred to be integrated with Instant Login via the OAuth 2.0 standard. More information is available at <https://dev.clever.com/v2.1/docs/identity-api>

### **Performance Standards**

The proposed solution must be designed and/or scalable to support the following estimated maximum quantities of user accounts and devices (actual subscription quantities may vary):

- Staff Accounts: 10,000
- Student Accounts: 68,500
- Staff Devices: 18,000
- Student Devices: 170,000

### **Internet and Bandwidth**

The district supports a robust state-of-the-art network infrastructure at all schools and support sites. Deployed access points in each classroom support the latest Wi-Fi 6 standard. The district has a 20 Gbps symmetrical uplink/downlink per data center (40 Gbps total combined capacity).

The district network is protected by a next generation firewall and many applications require “allowlisting” for district devices to access outside resources. Vendor must provide a list of all URL or ports required to access their proposed solution.

### **Data Exchange Standards**

When required, the proposed solution must have efficient data exchange capabilities that can be automated to handle large volumes of data manipulation (e.g., student data). The Vendor must be able to demonstrate how data exchange in and out will be performed. This is especially important for SaaS solutions. Web Services solutions supported include:

#### **Web Services**

- SQL Server Integration Services (SSIS)
- Extensible Markup Language (XML)
- API's (Application Programming Interfaces)

#### **Transport Services**

- Secure File Transfer Protocol (SFTP)
- Secure Copy (SCP)
- Secure Shell (SSH)

### **Authentication Standards**

The proposed solution must use one of the following application authentication standards. AD/LDAP integrations are discouraged:

- (Preferred) Google SSO solution (OAuth 2.0 or SAML)
- Microsoft Entra ID integration (formerly Azure Active Directory), using OAuth 2.0 or SAML 2.0

### **User Device Standards**

Note: The primary device for a student is a Chromebook. Applications intended for student use must be fully compatible on a Chromebook with the minimum specifications below.

#### **Staff devices will meet the following minimum specifications:**

- Windows 11 (64 bit)
- 16 GB RAM
- Intel 8th Gen i3 or greater (AMD equivalent)
- 256 GB hard drive space
- Google Chrome Browser
- Screen resolution 1024 X 768 or higher

#### **Student devices will meet the following minimum specifications:**

- ChromeOS
- 4 GB RAM
- Intel Celeron
- 32 GB hard drive space

### **Emerging Technologies and Support**

- If the solution uses AI, such as tools for personalized learning, vendors must clearly explain how the AI works, how they prevent bias, and how they follow ethical standards. Solutions should align with MPS AI guidelines.
- Vendors must provide training for MPS staff when the solution is implemented and offer ongoing support resources to help staff use the technology effectively. This includes easy-to-use guides or documentation to support smooth integration and adoption.
- Vendors must provide timelines for implementation and go live dates. This includes tangible milestones with performance metrics that can be tracked throughout the implementation.