



# Pathblazer® Technical Overview

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Edgenuity solutions have been designed for ease of use with deployment, maintenance, and functionality in a typical educational technology environment. The system predominantly runs on a hosted platform housed within secured data centers. Our customers can feel assured student data is safe and secure with absolutely no work required by school district personnel.

We have taken great care in engineering and designing a robust system with redundancy built in at every level. Multiple levels of backup are incorporated into the onsite and offsite real-time systems. As students and teachers log into our program they access servers located within the secured data centers. Student computers will access the Student Portal via the Internet with information transfer requirements equivalent to standard website interactions. School lab environments will require little Internet bandwidth to function.

## Edgenuity Solutions Overview

Edgenuity offers dynamic product solutions based on your needs. Solutions include online content for grades K-12 to support a variety of blended and virtual implementations. Our learning Management systems give educators the flexibility to personalize learning, customize curriculum, and manage program options with real-time data and reporting. For students, our digital content blends rigorous, standards-based instruction with lessons from expert, on-screen teachers along with multimedia tools and resources. Real-world applications ensure students build content knowledge and inspire deeper understanding.



Edgenuity®  
**Pathblazer®**

### ***Intervention for grades K-6***

Pathblazer helps educators engage discouraged students, hold their attention, and deliver engaging instruction in math and reading to accelerate students to grade level.

Pathblazer immediately identifies where students are struggling and provides the targeted instruction they need to close learning gaps.

### ***Companion to Core Instruction, including Science and Social Studies for grades K-6***

Pathblazer also provides teacher the flexibility they need to assign dynamic online content in the four core subjects. These lessons can be used alongside core instruction to help students practice and master grade-level skills.

Using these skills-based lessons, teachers can make the transition to blended or virtual learning easy with fun, motivating content kids can access in class and at home.

Edgenuity Minimum System Requirements		
Operating Systems		Browsers <sup>1</sup>
<ul style="list-style-type: none"> <li>Mac® OS X® 10.9+</li> <li>Windows® 10</li> </ul>		<ul style="list-style-type: none"> <li>Chrome®</li> <li>Firefox®</li> <li>Microsoft® Edge</li> <li>Safari®</li> </ul>
Required Ports		Memory & Hard Disk Space
<ul style="list-style-type: none"> <li>Port 80</li> <li>Port 443</li> </ul>		<ul style="list-style-type: none"> <li>2+ GB RAM</li> <li>1 GB available disk space for browser cache</li> </ul>
® Sound <sup>2</sup>		Network / Speed Connection <sup>3</sup>
<ul style="list-style-type: none"> <li>OS supported sound card</li> <li>Microphone, Speakers or Headsets</li> </ul>		<ul style="list-style-type: none"> <li>100Mbps Network Interface</li> <li>Internet access of 256 kbps per user</li> <li>Wi-Fi with minimum 512Kbps per device</li> </ul>
Plug-Ins <sup>4</sup>		Mobile Devices <sup>5</sup>
<ul style="list-style-type: none"> <li>Adobe® Acrobat® Reader®</li> <li>Adobe Flash® Player 18+</li> </ul>		<ul style="list-style-type: none"> <li>Chromebook™ using Chrome Browser</li> <li>iPad® using iOS® 10.3+</li> <li>iPad® mini is NOT supported</li> </ul>
White List <sup>6</sup>		
<b>Pathblazer Sites</b> brightcove.com help.edgenuitypathblazer.com macmilliandictionary.com odysseyreporting.thelearningodyssey.com student.skillwriter.com thelearningodyssey.com wordsmythclient.net *.zendesk.com		<b>Virtual Professional Development</b> https://*.zopim.com https://*.zopim.io wss://*.zopim.com

**Odyssey and Compass Learning High School are no longer available for new implementations but are supported by Edgenuity. Network requirements within this document should be applied for these products.**

- 1 Please allow third-party cookies within the browser. Chrome browser versions 42 or later may not allow functionality for some plug-ins.
- 2 Students will need access to audio capabilities including speakers and/or headsets.
- 3 A slow Internet connection will affect the performance of multimedia elements found in the Pathblazer courses.
- 4 All Instructional computer stations will require sufficient network-user permissions to ensure full functionality when using certain plug-in applications.
- 5 Pathblazer is not Android® tablet compatible at this time. Smart phone and smart watch devices are not supported.
- 6 Certain tasks and teacher-created Authentic Tasks require Internet access. In the interest of security standards and IT best practices, Edgenuity recommends you ONLY whitelist URLs to which your users need access, and only when access is needed. Some Content filters, web proxies, and/or classroom management software may also require additional white listing within your network.

Edgenuity has signed the Student Privacy Pledge developed by the Future of Privacy Forum (FPF) and the Software & Information Industry Association (SIIA). The provisions require additional security to protect student data against unauthorized third-party access.

Edgenuity solutions are hosted within secure and monitored environments. Stored data, or Personally Identifiable Information (PII), includes student and teacher names. Use of student ID number and identification of student attributes is optional. Results data, as displayed in reports, is attached to the student's name as locally entered into the management system.

Strict security procedures are implemented to prevent personally identifiable student files from unauthorized access. Parties with access to student information are limited to authorized employees and contractors, school districts, and/or the student's immediate family with proper request and identification. User profile types (e.g. student vs. teacher vs. administrator) are used to grant application access to specific data. Access is protected by user ID and password at the application, database, and operating system levels.

- Student information is protected by user profile types and user ID / password.
- Operating system levels are available to system and database administrators by user ID / password to access to all servers, files, and resources.
- Firewall security blocks all unauthorized external access to the network. Outside access can be gained only through application authentication or virtual private network (VPN) access by an authorized system administrator.

## Integration

### Single Sign-On Integration

Single Sign-On (SSO) integration allows students and teachers to access licensed solutions directly from within another website or Learning Management System (LMS). With SSO implemented, a link can be placed on the district's website or LMS. When this link is selected, the student launch pad or Odyssey Manager is launched without the need for a secondary log in. Slight modification to the website or LMS log in page is required for Single Sign-On integration. This feature is supported for students and teachers. Account credentials used to log into the district website or LMS must match the credentials currently established within Odyssey for each unique user to accomplish a simultaneous log in. Support for third party Single Sign Providers is also supported. This includes but is not limited to Clever, Google G-Suite, and third party LMS's that support LTI 1.1

### LDAP Authentication Integration

Edgenuity supports Lightweight Directory Access Protocol (LDAP) with Active Directory. LDAP Authentication can be set for teacher, student, and parent accounts. The use of LDAP for authentication is indicated in the account. Administrators identify which of the three user types applies to the authentication during account setup. Edgenuity personnel will assist with configuration and testing required for connection with the customer-provided LDAP directory service for log-on authentication.

### LTI Thin Common Cartridge

Edgenuity also earned IMS Learning Tools Interoperability (LTI) v1.1 Conformance. Custom work is required for integration of content within another LMS; the technical team will be happy to discuss specific district questions or configurations with you.

### User Provisioning

Pathblazer supports bulk user imports of students and teachers. Bulk user imports require teacher and/or student source data be in comma-separated-value (.csv) format for validation and upload. Front end manual bulk imports can be performed by administrators. In addition to front end bulk imports, an automated nightly import process can be configured. We support a variety of automated import integrations including OneRoster, Clever®, Classlink®, and several others. A csv data source file can be used for automated nightly imports.

Edgenuity's Technical Services team will be happy to discuss integration capabilities as well as assist with the integration implementation process.

## System Availability

Anticipated down time is announced in advance, scheduled for times with the least amount of impact (weekend nights). All components run in AWS and utilize the built in redundancy provided by AWS Cloud computing. All systems run in at least 2 different availability zones to provide additional safeguards and reliability. If an entire AWS zone were to go down or offline; our systems would continue to run as they are housed in multiple zones. All components are redundant and in the event a component fails; a new one is automatically created and placed into service.

## Network Monitoring

All servers and components are continuously monitored on a 24/7 basis for any disruption or irregular events. The hosted site is also monitored with a separate application that measures site performance.

All servers and components are monitored 24/7 by internal systems as well as AWS monitoring.

## Backups

Full weekly and daily differential backups of the hosting environment are conducted without affecting network performance. Backups are encrypted and stored in multiple AWS regions.

## Disaster Recovery

All systems operate in multiple availability zones with AWS. In the event one of those zones has a service issue; normal operations will continue operating automatically in the other zone(s) with no anticipated disruption of service.

## Transmission Protocol / Encryption

Listed solutions utilize TLS 1.2 or better for encrypting data transported via the Internet between the hosted application and customer workstations. HTTPS is utilized by all users through the entire session.

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