SYSTEM OVERVIEW AND DISASTER RECOVERY

The Imagine Math software infrastructure has been designed to minimize downtime and speed up recovery should something go wrong. We've set up the system to ensure that any number of students can work on Imagine Math with minimal impact on our performance. Additionally, in an unlikely event that would take down our main office, our customer support and instructional coaching team can be up and running off-site.

CLOUD-BASED INFRASTRUCTURE

Imagine Math leverages a cloud infrastructure. This approach allows us to increase platform resources to support additional user load in a matter of minutes so that the system can scale quickly and efficiently. Imagine Math is load tested annually at twice its expected peak concurrent user load for the projected school year.

PERFORMANCE MONITORING

Imagine Math uses a third party to continuously monitor several performance metrics, including uptime, average page load time, and database transaction time. IT staff are alerted if any of these metrics fall outside of internal standards.

DISTRIBUTED DATA CENTERS

Imagine Math maintains relationships with multiple data center providers in geographically distributed locations. In the event of a disaster that completely disables the facility that houses the primary application, Imagine Math's Disaster Recovery Plan is designed to restore full application functionality within 24 hours. Imagine Math's application source code and other critical business documents are backed up nightly and stored in multiple, geographically dispersed locations.

WEB-BASED APPLICATION

As a hosted web-based application, all customer support, teaching and administrative functions for the platform can be provided from any location with Internet access and would be supported by Imagine Math personnel from alternate locations should there be any business interruption at Imagine Math's office facilities. This environment establishes continuity of service to our customers.

WEB-BASED COMMUNICATIONS

Communications (email) and customer resource management (CRM) applications are web-based applications. In the event of an office facility business interruption, these internal systems would be accessed from alternate locations without interruption to our business. In addition to email, all Imagine Math personnel have access to a web-based text message service and a web-stored company phone directory to provide multiple modes of communication within our organization in the event of any disruption to office facilities.

IP CONFIGURATION

Imagine Math uses cloud-based infrastructure to provide scalability to ensure student wait times are minimized. Because of this, it is not possible to predict the IP addresses that will be used to serve content in the application. White listing based on IP address is not a supported configuration, as source IP addresses can change over the course of student usage.

TECHNICAL REQUIREMENTS

Imagine Math supports the following as minimum technical requirements.

OPERATING SYSTEMS, BROWSERS AND DEVICES

Imagine Math supports the following devices, operating systems and browser configurations. Imagine Math recommends Safari, Firefox and Chrome run in 'evergreen' (auto-update) configuration. This ensures that browsers are kept up-to-date with the latest security and performance patches.

Imagine Math supports 7" devices (e.g. Kindle Fire) in landscape configuration and 10" or larger devices (e.g. iPad) in both landscape and portrait configurations. The application is delivered through the browser without requiring a separate app download. Experience may vary across other Android or Windows devices.

DEVICE		OPERATING SYSTEM	BROWSER
DEVICE	Desktop computer Laptop computer	Microsoft Windows	Internet Explorer 9+ Firefox 30+ Chrome 31+
DEVICE	Desktop computer Laptop computer	Apple OSX	Safari 6+ Firefox 30+ Chrome 31+
DEVICE	Desktop computer Laptop computer	Chrome OS	Chrome 27+
DEVICE	iPad 2	iOS	Safari 3.2+
DEVICE	iPad Mini (2nd generation)	iOS	Safari 3.2+
DEVICE	Galaxy Tab	Android	Android Browser 3.0+ Chrome 31+
DEVICE	Kindle Fire	Android	Android Browser 3.0+ Chrome 31+
DEVICE	Surface	Windows	Internet Explorer

Internet Explorer 8 is supported as a deprecated experience only. If you rely exclusively on Internet Explorer 8 to access Imagine Math, you will be unable to experience many new features. Please contact Imagine Learning Customer Support for specific details about support for Internet Explorer 8.

If you are using Firefox to access Imagine Math, installing Adobe Flash may enhance your experience when engaging with live certified math teachers. To enable Adobe Flash to work properly with Imagine Math, ensure that content is permitted from the domain fms.thinkthroughmath.com on the following protocols (ports): TCP (1935) and TCP (80).

TECHNICAL REQUIREMENTS (CONT'D)

DISPLAY RESOLUTION

Imagine Math supports the following display resolutions.

		RESOLUTION (PIXELS)
DEVICE	Desktop computer Laptop computer Google Chromebook	1024 x 768
	Tablet Mobile device	7" devices (landscape only) 10" or larger devices (landscape and portrait)

NETWORK AND PERFORMANCE

Imagine Math recommends a broadband speed greater than 1Mbps between the school or student's device and the Internet. Imagine Math does not use synchronous media or video. Actual application performance depends on concurrent student use at any location.

CACHE SERVER/CONTENT FILTERING

Content on Imagine Math may be loaded from any of the following domains.

		PROTOCOL (PORT)	USAGE
DEVICE	*.thinkthroughmath.com	HTTP (80) HTTPS (443)	General application content
	thinkthroughlearning.zendesk.com	HTTPS (443)	Customer support ticketing and chat

If you enforce website restrictions on iOS devices, add https://lms.thinkthroughmath.com to the list of allowed websites.