



October 2018



IMPORTANT: Please note changes regarding supported Browsers, hardware requirements, as well as important changes to the IP addresses being used by the LMS content distribution network.

The following outlines the minimum technical requirements for ABA eLearning LMS and ABA courseware. To ensure successful usage of ABA training resources, a review of these requirements by your internal or contracted IT staff is required.

End User Requirements

Hardware	<ul style="list-style-type: none"> ○ Windows Compatible Personal Computer (Thin clients are NOT supported. Thin client configurations provide only a graphical user interface at the terminal and functions of the operating system are supplied by a remote server that shares resources across many users). ○ 900 MHZ or faster processor ○ 512 MB of RAM or greater ○ 1024x768 recommended, at 16-bit(high color) or greater ○ Speakers or headphones for courses containing audio or video components
Browsers	<ul style="list-style-type: none"> ○ Microsoft Internet Explorer 11x; Firefox; Google Chrome *NOTE: Support for Internet Explorer 10.x is discontinued as of May 4th, 2018. Furthermore, support for TLS 1.0 will be discontinued as well. For uninterrupted access to the LMS please use a browser configured to support TLS 1.1 or TLS 1.2 encryption. ○ Browser security must be set to allow script-initiated windows without size or position constraints. ○ Browser must be set to accept cookies ○ Javascript must be enabled ○ All pop-up blockers must be disabled while using ABA eLearning (browser, plugin, toolbar, and security driven pop-up blockers).
Plugins	<ul style="list-style-type: none"> ○ Adobe Flash Player 8 or greater for interactive courseware ○ Adobe Acrobat Reader 6 or greater for certifications and certain course materials ○ Java plugin or another JRE is required for some courses including those by Risk Management Associates.

Special Requirements for:

Users Accessing Live ABA Briefings: ABA Live Briefings are provided via the LMS using Adobe Connect. The Adobe Connect meeting room will be accessible from any browser with Flash enabled. They can also be accessed from your iOS device. Adobe's system check for flash enabled browsers can be run [here](#). To ensure your iOS device will be able to access your briefing, we recommend that you join your meeting 15 minutes earlier or more.

Users Accessing from Personally Owned/Non-corporate computers or Non-corporate network locations: Users taking courses from personal computing locations on personal computers (non corporate/non-corporate network machines or network connections) should ensure that personal firewalls and/or certain security products are set to exclude aba.com, abakc.com, csod.com and cornerstoneondemand.com. In some cases disabling these products may be necessary to use ABA eLearning products.

Network Level Requirements

<p>Email Filtering Systems</p>	<p>Please add the following e-mail server IP addresses and/or domain names to your white-lists to ensure uninterrupted mail service:</p> <table border="1" data-bbox="277 300 1383 405"> <tr> <td data-bbox="277 300 781 405"> <p>208.185.229.41 – 208.185.229.45 208.185.235.41 – 208.185.235.45 204.92.19.140</p> </td> <td data-bbox="781 300 1383 405"> <p>csod.com, cornerstoneondemand.com, abakc.com, mail01.response.aba.com, & aba.com</p> </td> </tr> </table>	<p>208.185.229.41 – 208.185.229.45 208.185.235.41 – 208.185.235.45 204.92.19.140</p>	<p>csod.com, cornerstoneondemand.com, abakc.com, mail01.response.aba.com, & aba.com</p>
<p>208.185.229.41 – 208.185.229.45 208.185.235.41 – 208.185.235.45 204.92.19.140</p>	<p>csod.com, cornerstoneondemand.com, abakc.com, mail01.response.aba.com, & aba.com</p>		
<p>Whitelisting: Firewalls & Intrusion Detection Systems</p>	<p>Firewalls should be set to whitelist connections to aba.com, abakc.com, cornerstoneondemand.com, and csod.com by domain name only and not by IP address.</p> <p>The following domains are used by ABA for content delivery through a content delivery network (CDN). These domains should also be whitelisted. Please note, these domains use HTTPS (SSL).</p> <table border="1" data-bbox="277 625 1289 947"> <tr> <td data-bbox="277 625 781 947"> <p>content.aba.com uploads.aba.com aba.abakc.com c757448.ssl.cf2.rackcdn.com c757448.r47.cf2.rackcdn.com c757447.ssl.cf2.rackcdn.com c757447.r47.cf2.rackcdn.com</p> </td> <td data-bbox="781 625 1289 947"> <p>54.209.232.50 107.23.58.122 54.173.18.220 104.37.107.32/28 104.37.107.34-104.37.107.36 dmhl4ur684aqh.cloudfront.net http://csod-vh.akamaihd.net</p> </td> </tr> </table> <p>NOTE: For users of Skillsoft or Risk Management Association content, the following urls must also be whitelisted: rma-ementor.org and skillport.com</p> <p>If you access ABA’s LMS through abalms.csod.com due to filtering issues, please whitelist aba.abakc.com.</p>	<p>content.aba.com uploads.aba.com aba.abakc.com c757448.ssl.cf2.rackcdn.com c757448.r47.cf2.rackcdn.com c757447.ssl.cf2.rackcdn.com c757447.r47.cf2.rackcdn.com</p>	<p>54.209.232.50 107.23.58.122 54.173.18.220 104.37.107.32/28 104.37.107.34-104.37.107.36 dmhl4ur684aqh.cloudfront.net http://csod-vh.akamaihd.net</p>
<p>content.aba.com uploads.aba.com aba.abakc.com c757448.ssl.cf2.rackcdn.com c757448.r47.cf2.rackcdn.com c757447.ssl.cf2.rackcdn.com c757447.r47.cf2.rackcdn.com</p>	<p>54.209.232.50 107.23.58.122 54.173.18.220 104.37.107.32/28 104.37.107.34-104.37.107.36 dmhl4ur684aqh.cloudfront.net http://csod-vh.akamaihd.net</p>		
<p>Bandwidth</p>	<p>ABA eLearning requires a minimum of 56kbps. ABA Courseware bandwidth requirements vary by course. For optimal performance, a high speed internet connection is recommended. Students taking courses on lower bandwidth connections may experience slower load times or video buffering in the courses that contain video.</p>		

(Additional troubleshooting details continued on next page.)

PLEASE NOTE: In order to troubleshoot content delivery problems, it may be necessary to enable firewall logging while reproducing the problem. Content is delivered from several IP addresses via the Akamai network. The IP addresses listed below should only be used for troubleshooting purposes. We **do not recommend** that you whitelist all of the IP addresses. *Cornerstone Subnet:* (This is the only IP address range that is ‘safe’ to whitelist.)

- 208.185.229.0/24
- 208.185.235.0/24

****NOTE:** If you whitelist these ranges, use <https://abalms.csod.com> to access the LMS.

Akamai CIDR: DO NOT WHITELIST -- These are for information purposes only

104.108.167.217/32	2.20.16.215/21	23.12.125.9/32	23.52.62.118/32	23.64.88.145/32
104.67.28.153/32	104.68.188.153/32	104.69.103.5/32	104.76.92.153/32	23.65.216.153/32
104.78.76.153/32	104.81.246.153/32	104.82.76.153/32	104.83.76.153/32	23.67.158.222/32
104.83.82.153/32	104.83.92.153/32	104.91.156.170/32	104.94.102.153/32	23.75.218.153/32
104.98.241.212/32	114.108.190.3/32	118.214.241.238/32	118.215.74.213/32	23.9.93.142/32
118.215.82.73/32	125.252.236.222/32	173.222.102.196/32	173.222.142.54/32	72.246.48.153/32
173.222.190.157/32	173.222.226.222/32	173.223.142.160/32	173.223.154.25/32	92.122.98.178/32
173.223.230.174/32	173.223.76.109/32	173.223.92.153/32	184.24.250.118/32	95.101.106.172/32
184.25.65.67/32	184.27.128.81/32	184.28.154.251/32	184.28.25.247/32	96.17.225.242/32
184.29.113.67/32	184.29.29.86/32	184.29.59.87/32	184.31.218.113/32	96.6.38.171/32
184.50.180.242/32	184.51.70.78/32	184.84.186.172/32	184.84.202.167/32	23.65.12.150/32
184.85.78.196/32	2.16.124.52/32	2.16.128.153/32	2.16.30.153/32	23.66.152.153/32
2.16.32.59/32	2.16.44.107/32	2.16.84.204/32	2.16.96.96/32	23.7.121.142/32
2.17.177.246/32	2.20.18.202/32	2.21.147.109/32	2.21.195.106/32	23.78.201.137/32
2.22.12.134/32	2.22.220.153/32	23.0.172.153/32	23.0.230.153/32	59.151.172.229/32
23.0.236.153/32	23.1.10.208/32	23.1.188.153/32	23.10.12.153/32	88.221.39.197/32
23.10.60.153/32	23.12.124.153/32	23.12.236.153/32	23.13.177.195/32	92.123.164.109/32
23.13.44.153/32	23.14.44.153/32	23.15.132.153/32	23.15.206.167/32	95.101.110.174/32
23.15.250.172/32	23.194.168.29/32	23.194.220.153/32	23.196.63.78/32	96.17.250.118/32
23.197.60.153/32	23.198.104.153/32	23.198.106.153/32	23.199.3.175/32	23.65.136.93/32
23.203.244.69/32	23.204.100.153/32	23.205.3.63/32	23.206.76.153/32	23.66.217.139/32
23.207.147.202/32	23.211.145.205/32	23.211.230.63/32	23.212.102.153/32	23.7.35.229/32
23.214.72.153/32	23.215.140.153/32	23.218.122.196/32	23.221.20.153/32	23.79.202.160/32
23.222.172.153/32	23.223.76.153/32	23.3.142.172/32	23.32.12.153/32	69.192.122.57/32
23.33.172.155/32	23.35.108.129/32	23.35.169.137/32	23.35.44.31/32	92.122.232.116/32
23.35.60.135/32	23.35.84.44/32	23.36.89.137/32	23.37.137.137/32	95.100.112.136/32
23.37.89.142/32	23.38.116.153/32	23.38.188.153/32	23.4.39.66/32	95.101.164.33/32
23.4.57.138/32	23.40.12.153/32	23.41.73.142/32	23.42.76.153/32	96.17.26.213/32
23.43.137.138/32	23.43.185.137/32	23.44.252.247/32	23.46.2.153/32	23.65.200.153/32
23.47.228.145/32	23.47.23.163/32	23.49.134.105/32	23.5.124.153/32	23.66.40.153/32
23.5.75.11/32	23.50.148.104/32	23.50.204.88/32	23.51.12.153/32	23.7.84.10/32
23.51.122.234/32	23.51.156.153/32	23.51.245.235/32	23.52.84.233/32	23.79.53.151/32
23.54.109.188/32	23.54.12.153/32	23.54.84.79/32	23.55.149.198/32	72.246.108.92/32
23.56.156.53/32	23.57.196.223/32	23.57.236.113/32	23.57.83.197/32	92.122.70.171/32
23.58.10.169/32	23.58.167.68/32	23.58.90.153/32	23.58.96.169/32	95.100.246.186/32
23.59.138.189/32	23.59.201.137/32	23.60.79.15/32	23.61.12.33/32	95.101.84.149/32
23.61.126.225/32	23.62.248.29/32	23.63.115.63/32	23.63.150.153/32	96.6.226.129/32
23.63.193.237/32	23.63.22.153/32	23.64.142.153/32	23.64.172.167/32	