

This document describes the network and hardware configurations recommended or needed to work with Apex Learning solutions based on the solution and the device being used. Apex Learning solutions include:

- Comprehensive Courses
- Tutorials
- Apex Learning Virtual School (ALVS)
- AP* Exam Review (APER)

Network Configuration

Bandwidth

A suitable Internet connection is required. This connection must have appropriate bandwidth considering:

- The number of concurrent users
- Other network applications (e.g. VOIP)
- Current bandwidth utilization
- Varying usage habits

Access

Firewalls, content filters, and other network infrastructure must allow connections to the following ports and domains:

- *.apexlearning.com
- *.apexvs.com
- correlation.edgate.com
- Port TCP/80 (all listed domains)
- Port TCP/443 (all listed domains)
- A defined set of 3rd party URLs (provided upon request to Support)

HTTP 1.1 Support

Apex Learning supports HTTP 1.1 (RFC 2616). This protocol is optional, but recommended.

Proxies sending HTTP 1.1 requests must be either compliant or conditionally compliant with RFC 2616. If a non-compliant proxy cannot be made compliant, then connections to Apex Learning courses must either:

- Bypass the proxy
- Use only the HTTP 1.0 protocol

HTTPS Support

Apex Learning supports HTTPS (Hypertext Transfer Protocol Secure) to provide encrypted communication and secure identification.

Content Caching

| Cache Setting | Comprehensive Courses, ALVS, APER | Tutorials |
|--|--|---|
| Domains that may be cached, but should be refreshed weekly | <ul style="list-style-type: none"> • media.apexlearning.com • assets.apexlearning.com • acecontent.apexlearning.com | <ul style="list-style-type: none"> • Not applicable |
| Domains that must NOT be cached | <ul style="list-style-type: none"> • apexvs.com • courses.apexlearning.com • course.apexlearning.com • course-api.apexlearning.com | <ul style="list-style-type: none"> • apexvs.com • tutorials2.apexvs.com |

Hardware Configuration

Desktop Operating System

To ensure appropriate security and support Apex Learning aligns supported operating systems to manufacturer support timelines. If an OS is no longer supported by the manufacturer or has not had a security update for a year or more, Apex Learning will not officially support.

| Operating System | Comprehensive Courses, ALVS, APER | Tutorials |
|------------------------------------|-----------------------------------|-----------|
| Microsoft Windows 8.1 | Supported | Supported |
| Microsoft Windows 10 | Supported | Supported |
| Apple Mac OS X 10.11 (El Capitan) | Supported | Supported |
| Apple Mac OS X 10.12 (Sierra) | Supported | Supported |
| Apple Mac OS X 10.13 (High Sierra) | Supported | Supported |
| Chrome OS | Supported | Supported |

Web Browser

Modern web browsers update automatically to ensure up to date security. Apex Learning strongly suggests taking advantage of this feature or periodically updating to the most recent browser. If a browser has not received an update for a year or more, Apex Learning will not officially support.

| Web Browser | Current supported versions (7/2018) | Comprehensive Courses, ALVS, APER | Tutorials |
|-----------------------------|-------------------------------------|-----------------------------------|-----------|
| Microsoft Internet Explorer | 11 | Supported | Supported |
| Microsoft Edge | 41 and above | Supported | Supported |
| Google Chrome | 60 and above | Supported | Supported |
| Mozilla Firefox | 58 and above | Supported | Supported |
| Apple Safari | 11.1.2 and above | Supported | Supported |

Tablet Device Operating System

The following operating systems are supported on tablet devices using native browsers only. To ensure appropriate security and support Apex Learning aligns supported operating systems to manufacturer support timelines. If an OS is no longer supported by the manufacturer or has not had a security update for a year or more, Apex Learning will not officially support.

| Operating System | Comprehensive Courses, ALVS, APER | Tutorials |
|-----------------------------------|-----------------------------------|-----------|
| iOS 9 or higher | Not supported | Supported |
| Android 6 (Marshmallow) or higher | Not supported | Supported |
| Microsoft Windows 8.1 | Supported | Supported |
| Chrome OS | Supported | Supported |

Additional Recommendations and Requirements

| Requirement | Comprehensive Courses, ALVS, APER | Tutorials |
|----------------------------------|--|--|
| Display Resolution & Color Depth | Resolution <ul style="list-style-type: none"> 960 x 768 minimum 1024 x 768 recommended min Color Depth <ul style="list-style-type: none"> 16 bits (Highcolor) recommended | Resolution <ul style="list-style-type: none"> 960 x 768 minimum 1024 x 768 recommended min Color Depth <ul style="list-style-type: none"> 16 bits (Highcolor) recommended |
| Required Browser Plug-ins | <ul style="list-style-type: none"> Adobe Reader Adobe Flash Player 30 or higher | <ul style="list-style-type: none"> Not applicable |
| Audio | <ul style="list-style-type: none"> Speakers or headphones Microphone (<i>World languages only</i>) Audio recording support (<i>World languages only</i>) | <ul style="list-style-type: none"> Speakers or headphones |
| Print (as appropriate) | <ul style="list-style-type: none"> Printer Scanner Fax Multipage TIF Viewer | <ul style="list-style-type: none"> Printer |
| Word Processing | <ul style="list-style-type: none"> Software that can open, modify, and save documents in Rich Text Format (RTF) | <ul style="list-style-type: none"> Not applicable |

Getting Support

For additional help with network or hardware configuration, please contact Apex Learning Support.

- Monday – Friday, 5:00 AM – 7:00 PM Pacific Time
- 1-800-453-1454 option 2
- support@apexlearning.com