New Hampshire Statewide Assessment System

Configurations, Troubleshooting, and Advanced Secure Browser Installation Guide for Chrome OS

For Technology Coordinators

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Configurations, Troubleshooting, and Advanced Secure Browser Installation for Chrome OS

This document contains configurations, troubleshooting, and advanced Secure Browser installation instructions for your network and Chrome OS workstations.

Additional Configurations for Networks

This section contains additional configurations for your network.

Whitelisting Resources for Online Testing

This section presents information about the URLs that AIR provides. Ensure your network's firewalls are open for these URLs. If your testing network includes devices that perform traffic shaping, packet prioritization, or Quality of Service, ensure these URLs have high priority.

URLs for Non-Testing Sites

Table 1 lists URLs for non-testing sites, such as Test Information Distribution Engine and Online Reporting System.

Table 1. AIR URLs for Non-Testing Sites

System	URL
Portal and Secure Browser installation files	http://nh.portal.airast.org/
Single Sign-On System	https://login11.cloud1.tds.airast.org/testadmin/V248/?c=NewHampshire
Test Information Distribution Engine	https://nh.tide.airast.org/
Online Reporting System	https://nh.reports.airast.org/

URLs for TA and Student Testing Sites

Testing servers and satellites may be added or modified during the school year to ensure an optimal testing experience. As a result, AIR strongly encourages you to whitelist at the root level. This requires using a wildcard.

Table 2. AIR URLs for Testing Sites

System	URL
TA and Student Testing Sites Assessment Viewing Application	*.airast.org *.tds.airast.org *.cloud1.tds.airast.org *.cloud2.tds.airast.org

URLs for Online Dictionary and Thesaurus

Some online assessments contain an embedded dictionary and thesaurus provided by Merriam-Webster. The Merriam-Webster URLs listed in Table 3 should be whitelisted to ensure that students can use them during testing.

Table 3. AIR URLs for Online Dictionaries and Thesauruses

Domain Name	IP Address
media.merriam-webster.com	64.124.231.250
www.dictionaryapi.com	64.124.231.250

Required Ports and Protocols

Table 4 lists the ports and protocols used by the Test Delivery System. Ensure that all content filters, firewalls, and proxy servers are open accordingly.

Table 4. Ports and Protocols for Test Delivery System

Port/Protocol	Purpose
80/TCP	HTTP (initial connection only)
443/TCP	HTTPS (secure connection)

Configuring Filtering Systems

If the school's filtering system has both internal and external filtering, the URLs for the testing sites (see Table 1) must be whitelisted in both filters. Please see your vendor's documentation for specific instructions. Also, be sure to whitelist these URLs in any multilayer filtering system (such as local and global layers).

Configuration for Domain Name Resolution

Table 1 and Table 2 list the domain names for AIR's testing and non-testing applications. Ensure the testing machines have access to a server that can resolve those names.

Configuring for Certificate Revocations

AIR's servers present certificates to the clients. The following sections discuss the methods used to check those certificates for revocation.

Online Certificate Status Protocol

To use the Online Certificate Status Protocol (OCSP), ensure your firewalls allow the domain names listed in Table 5. The values in the Patterned column are preferred because they are more robust.

Table 5. Domain Names for OCSP

Patterned	Fully Qualified
*.thawte.com	oscp.thawte.com
*.geotrust.com	oscp.geotrust.com
*.ws.symantec.com	oscp.ws.symantec.com

If your firewall is configured to check only IP addresses, do the following:

1. Get the current list of OCSP IP addresses from Symantec. The list is available at https://www.symantec.com/content/en/us/enterprise/other_resources/OCSP_Upgrade_-_New_IP_Addresses.txt.
2. Add the retrieved IP addresses to your firewall's whitelist. Do not replace any existing IP addresses.

Additional Instructions for Installing the Secure Browser for Chrome OS

This document contains additional installation instructions for installing the Secure Browser for Chrome OS.

Note: Chromebooks manufactured in 2017 or later must have an Enterprise or Education license to run in kiosk mode, which is necessary to run the Secure Browser.

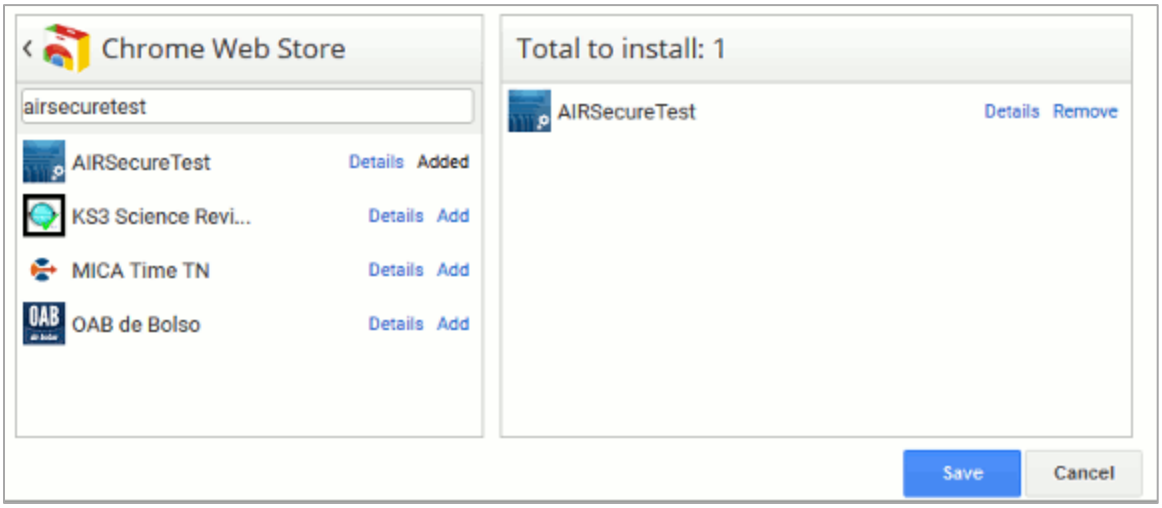
Installing AIRSecureTest as a Kiosk App on Managed Chromebooks

These instructions are for installing the AIRSecureTest Secure Browser as a kiosk app on domain-managed Chromebook devices. The steps in this procedure assume that your Chromebooks are already managed through the admin console.

AIRSecureTest is not compatible with public sessions.

1. As the Chromebook administrator, log in to your admin console (https://admin.google.com).
2. Click **Device management**. The Device management page appears.
3. In the left side of the page, click **Chrome management**, and in the next page click **Device settings**.
4. In the ***Device settings*** page, scroll down to the *Kiosk Settings* section.
5. Click **Manage Kiosk Applications**. The ***Kiosk Apps*** window appears (see Figure 1).

Figure 1. Kiosk Apps Window



6. If any AIRSecureTest apps appear in the right column, remove them by clicking **Remove**.
7. Add the AIRSecureTest app by doing the following:
   a. Click **Manage Kiosk Applications**. The ***Kiosk Apps*** window appears.
   b. Click **Chrome Web Store**.
   c. In the search box, enter `AIRSecureTest` and press **Enter**. The AIRSecureTest app appears.
   d. Click **Add**. The app appears in the *Total to install* section.
   e. Click **Save**. The AIRSecureTest application appears on all managed Chromebook devices.

Additional Configurations for Chrome OS

This section contains additional configurations for Chrome OS.

Managing Chrome OS Auto-Updates

This section describes how to manage Chrome OS auto-updates. AIR recommends disabling Chrome OS auto-updates or limiting updates to a specific version used successfully before summative testing begins.

Disabling Auto-Updates for Chrome OS

This section describes how to disable auto-updates for Chrome OS.

To disable auto-updates for Chrome OS:

1. Display the Device Settings page by following the procedure in ***Manage device settings***, https://support.google.com/chrome/a/answer/1375678. The steps in that procedure assume that your Chromebooks are managed through the admin console.
2. From the *Auto Update* list, select **Stop auto-updates**.
3. Click **Save**.

Limiting Chrome OS Updates to a Specific Version

This section describes how to limit Chrome OS updates to a specific version.

To limit Chrome OS updates to a specific version:

1. Display the Device Settings page by following the procedure in ***Manage device settings***, https://support.google.com/chrome/a/answer/1375678. The steps in that procedure assume that your Chromebooks are managed through the admin console.
2. From the *Auto Update* list, select **Allow auto-updates**.
3. From the *Restrict Google Chrome version to at most* list, select the required version.
4. Click **Save**.

Troubleshooting Text-to-Speech

Using text-to-speech requires at least one voice pack to be installed on testing computers.

A number of voice packs are available for desktop computers, and AIR researches and tests voice packs for compatibility with the Secure Browsers. Additionally, not all voice packs that come pre-installed with operating systems are approved for use with online testing. The voice packs listed at the end of this section have been tested and are whitelisted by the Secure Browser.

Using Text-to-Speech

Students using text-to-speech for the practice tests must log in using a supported Secure Browser. Students can also verify that text-to-speech works on their computers by logging in to a practice test session and selecting a test for which text-to-speech is available.

Note: We strongly encourage schools to test the text-to-speech settings before students take operational tests. You can check these settings through the diagnostic page. From the student practice test login screen, click the **Run Diagnostics** link, and then click the **Text-to-Speech Check** button.

How the Secure Browser Selects Voice Packs

This section describes how AIR's Secure Browsers select which voice pack to use.

Voice Pack Selection on Mobile Versions of Secure Browsers

The Mobile Secure Browser uses either the device's native voice pack or a voice pack embedded in the Secure Browser. Additional voice packs downloaded to a mobile device are not recognized by the Mobile Secure Browser.

Text-to-Speech and Mobile Devices

Text-to-speech (TTS) includes a feature that allows students to pause and then resume TTS in the middle of a passage. The pause feature does not work on mobile devices. Consequently, consider testing students who require TTS on desktop or laptop computers.