



CIS Google Chrome Browser Cloud Management Benchmark

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Overview

All CIS Benchmarks focus on technical configuration settings used to maintain and/or increase the security of the addressed technology, and they should be used in **conjunction** with other essential cyber hygiene tasks like:

- Monitoring the base operating system for vulnerabilities and quickly updating with the latest security patches
- Monitoring applications and libraries for vulnerabilities and quickly updating with the latest security patches

In the end, the CIS Benchmarks are designed as a key **component** of a comprehensive cybersecurity program.

This document provides prescriptive guidance for establishing a secure configuration posture for Google Chrome browser. This guide was tested against Google Chrome v120. To obtain the latest version of this guide, please visit http://benchmarks.cisecurity.org. If you have questions, comments, or have identified ways to improve this guide, please write us at feedback@cisecurity.org. IMPORTANT NOTE: This Benchmark assumes that Google Chrome is managed via Chrome Browser Cloud Management in Google Workspace.

Recommendation Order

This Benchmark has high-level sections based on various security related concerns (Enforced Defaults, Privacy, etc.), and is mimicking the recommendation order, where applicable, in the GPO-based Google Chrome Benchmark.

Enforced Defaults

Many of the settings specified in this Benchmark are also the default settings for the browser. These are specified for the following reasons:

- 1. The default (Unset) setting may have the same effect as what is prescribed, but they allow the user to change these settings at any time. Actually configuring the browser setting to the prescribed value will prevent the user from changing it.
- Many organizations want the ability to scan systems for Benchmark compliance and configuration drift using CIS (CIS-CAT) or CIS certified third party tools (<u>CIS Vendor Partners</u>). Having these settings specified in the Benchmark allows for this.

Viewing the Resulting "Policies" in Chrome

These "Policy" settings can be viewed in Google Chrome directly by typing https://policy/directly into the Google Chrome address box, or through the Google Chrome Browser Cloud Management in Google Workspace,

https://admin.google.com.

For more information on Google Chrome Browser Cloud Management, visit https://chromeenterprise.google/products/cloud-management/

Intended Audience

The Google Chrome CIS Benchmarks are written for Google Chrome managed through Chrome Browser Cloud Management using the Google Workspace, not standalone/workgroup systems. Adjustments/tailoring to some recommendations will be needed to maintain functionality if attempting to implement CIS hardening on standalone systems.

Consensus Guidance

This CIS Benchmark was created using a consensus review process comprised of a global community of subject matter experts. The process combines real world experience with data-based information to create technology specific guidance to assist users to secure their environments. Consensus participants provide perspective from a diverse set of backgrounds including consulting, software development, audit and compliance, security research, operations, government, and legal.

Each CIS Benchmark undergoes two phases of consensus review. The first phase occurs during initial Benchmark development. During this phase, subject matter experts convene to discuss, create, and test working drafts of the Benchmark. This discussion occurs until consensus has been reached on Benchmark recommendations. The second phase begins after the Benchmark has been published. During this phase, all feedback provided by the Internet community is reviewed by the consensus team for incorporation in the Benchmark. If you are interested in participating in the consensus process, please visit https://workbench.cisecurity.org/.

Typographical Conventions

The following typographical conventions are used throughout this guide:

Convention	Meaning
Stylized Monospace font	Used for blocks of code, command, and script examples. Text should be interpreted exactly as presented.
Monospace font	Used for inline code, commands, or examples. Text should be interpreted exactly as presented.
<italic brackets="" font="" in=""></italic>	Italic texts set in angle brackets denote a variable requiring substitution for a real value.
Italic font	Used to denote the title of a book, article, or other publication.
Note	Additional information or caveats

Recommendation Definitions

The following defines the various components included in a CIS recommendation as applicable. If any of the components are not applicable it will be noted or the component will not be included in the recommendation.

Title

Concise description for the recommendation's intended configuration.

Assessment Status

An assessment status is included for every recommendation. The assessment status indicates whether the given recommendation can be automated or requires manual steps to implement. Both statuses are equally important and are determined and supported as defined below:

Automated

Represents recommendations for which assessment of a technical control can be fully automated and validated to a pass/fail state. Recommendations will include the necessary information to implement automation.

Manual

Represents recommendations for which assessment of a technical control cannot be fully automated and requires all or some manual steps to validate that the configured state is set as expected. The expected state can vary depending on the environment.

Profile

A collection of recommendations for securing a technology or a supporting platform. Most benchmarks include at least a Level 1 and Level 2 Profile. Level 2 extends Level 1 recommendations and is not a standalone profile. The Profile Definitions section in the benchmark provides the definitions as they pertain to the recommendations included for the technology.

Description

Detailed information pertaining to the setting with which the recommendation is concerned. In some cases, the description will include the recommended value.

Rationale Statement

Detailed reasoning for the recommendation to provide the user a clear and concise understanding on the importance of the recommendation.

Impact Statement

Any security, functionality, or operational consequences that can result from following the recommendation.

Audit Procedure

Systematic instructions for determining if the target system complies with the recommendation.

Remediation Procedure

Systematic instructions for applying recommendations to the target system to bring it into compliance according to the recommendation.

Default Value

Default value for the given setting in this recommendation, if known. If not known, either not configured or not defined will be applied.

References

Additional documentation relative to the recommendation.

CIS Critical Security Controls® (CIS Controls®)

The mapping between a recommendation and the CIS Controls is organized by CIS Controls version, Safeguard, and Implementation Group (IG). The Benchmark in its entirety addresses the CIS Controls safeguards of (v7) "5.1 - Establish Secure Configurations" and (v8) '4.1 - Establish and Maintain a Secure Configuration Process" so individual recommendations will not be mapped to these safeguards.

Additional Information

Supplementary information that does not correspond to any other field but may be useful to the user.

Profile Definitions

The following configuration profiles are defined by this Benchmark:

Level 1 (L1) - Corporate/Enterprise Environment (general use)

Items in this profile intend to:

- be the starting baseline for most organizations;
- be practical and prudent;
- provide a clear security benefit; and
- o not inhibit the utility of the technology beyond acceptable means.

Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

This profile extends the "Level 1 (L1)" profile. Items in this profile exhibit one or more of the following characteristics:

- are intended for environments or use cases where security is more critical than manageability and usability;
- o may negatively inhibit the utility or performance of the technology; and
- limit the ability of remote management/access.

Note: Implementation of Level 2 requires that both Level 1 and Level 2 settings are applied.

Acknowledgements

This Benchmark exemplifies the great things a community of users, vendors, and subject matter experts can accomplish through consensus collaboration. The CIS community thanks the entire consensus team with special recognition to the following individuals who contributed greatly to the creation of this guide:

Contributor

Jordan Rakoske GSEC, GCWN
Brian Howson
Johannes Goerlich, Siemens AG
Fletcher Oliver
Adrian Clark
Joe Goerlich, Siemens AG
Patrick Stoeckle, Siemens AG
John Mahlman
Joseph Musso
Loren Hudziak
Daniel Christopher
Kari Byrd

Editor

Phil White, Center for Internet Security, New York Edward Byrd, Center for Internet Security, New York Josh Franklin

Recommendations

1 Enforced Defaults

This section contains recommendations that are configured by default when you install Google Chrome. Enforcing these settings at an enterprise level can prevent these settings from changing to a less secure option.

1.1 HTTP authentication	า		

1.1.1 (L1) Ensure 'Cross-origin authentication' is set to 'Block cross-origin authentication' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether third-party sub-content can open a HTTP Basic Auth dialog and is typically disabled.

The recommended state for this setting is: Block cross-origin authentication

Rationale:

This setting is typically disabled to help combat phishing attempts.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cross-origin authentication
- **6. Ensure** Specify whether third-party sub-content on a page is allowed to pop-up an HTTP basic authentication dialog box. **is set to** Block cross-origin authentication

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Cross-origin authentication
- **6. Set** Specify whether third-party sub-content on a page is allowed to popup an HTTP basic authentication dialog box. **tO** Block cross-origin authentication
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AllowCrossOriginAuthPrompt

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.2 Safe Browsing settings		

1.2.1 (L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

The setting determines the functionality of Safe Browsing.

- Disabled (0): Safe Browsing protection applies to all resources
- Enabled (1), with a list of 1 or more sites: Means Safe Browsing will trust the domains you designate. It won't check them for dangerous resources such as phishing, malware, or unwanted software.

The recommended state for this setting is: Disabled (0)

NOTE: Safe Browsing's download protection service won't check downloads hosted on these domains, and its password protection service won't check for password reuse.

Rationale:

Google Safe Browsing will help protect users from a variety of malicious and fraudulent sites, or from downloading dangerous files.

Impact:

None - This is the default behavior.

NOTE: The only real impact is possible user annoyance if they are going to a legitimate site that is falsely considered fraudulent (a rare occurrence). This can be handled by adding the site to the allowlist and/or notifying Google of the false finding.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Safe Browsing allowed domains
- 6. Ensure Allow Domains is empty

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Safe Browsing allowed domains
- 6. Remove any URLs from Allowed Domains
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#SafeBrowsingAllowlistDomains
- 2. https://safebrowsing.google.com/

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.2.2 (L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Control whether Google Chrome's Safe Browsing feature is enabled and the mode in which it operates. If you set this setting as mandatory, users cannot change or override the Safe Browsing setting in Google Chrome.

If this setting is left not set, Safe Browsing will operate in Standard Protection mode but users can change this setting.

- No Protection (0): Safe Browsing is never active.
- Standard Protection (1): Safe Browsing is active in the standard mode.
- Enhanced Protection (2): Safe Browsing is active in the enhanced mode. This
 mode provides better security, but requires sharing more browsing information
 with Google.

The recommended state for this setting is: Safe Browsing is active in the standard mode. (1) or higher

Rationale:

Google Safe Browsing will help protect users from a variety of malicious and fraudulent sites, or from downloading dangerous files.

NOTE: Google recommends using Enhanced Safe Browsing Mode (2). Turning on Enhanced Safe Browsing will substantially increase protection from dangerous websites and downloads, but will share more data with Google.

For more details, please refer to the items in the References section below.

Impact:

None - This is the default behavior (Standard Protection).

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Safe Browsing protection
- Ensure Safe Browsing Protection Level is set to Safe Browsing is active in the standard mode
- 7. Ensure Allow Safe Browsing's standard protection mode to send partial hashes of URLs to Google is set to Allow higher-protection proxied lookups

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Safe Browsing protection
- **6.** Ensure Safe Browsing Protection Level is set to Safe Browsing is active in the standard mode
- 7. Ensure Allow Safe Browsing's standard protection mode to send partial hashes of URLs to Google is Set to Allow higher-protection proxied lookups
- 8. Select save

Default Value:

Unset (Same as Standard Protection, but user can change)

References:

- https://chromeenterprise.google/policies/#SafeBrowsingProtectionLevel
- 2. https://security.googleblog.com/2020/05/enhanced-safe-browsing-protection-now.html
- 3. https://security.googleblog.com/2021/06/new-protections-for-enhanced-safe.html
- 4. https://developers.google.com/safe-browsing?ga=2.65351149.274800631.1631808382-2031399475.1630502681

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.3 (L1) Ensure 'Cast' is set to 'Do not allow users to cast' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether Google Cast is able to connect to all IP Addresses or only private IP Addresses as defined in RFC1918 (IPv4) and RFC4193 (IPv6). Note that if the *EnabledMediaRouter* setting is set to <code>Disabled</code> there is no positive or negative effect for this setting.

The recommended state for this setting is: Disabled (0)

Rationale:

Allowing Google Cast to connect to public IP addresses could allow media and other potentially sensitive data to be exposed to the public. Disabling this setting will ensure that Google Cast is only able to connect to private (ie: internal) IP addresses.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cast
- $\pmb{6}$. \pmb{Ensure} Allow users to Cast from Chrome \pmb{is} \pmb{set} \pmb{to} Do not allow users to cast

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cast
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Allow users to Cast from Chrome $\pmb{\mathsf{to}}$ Do not allow users to cast
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#MediaRouterCastAllowAllIPs

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

1.4 (L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether Google Chrome can send queries to a Google time service for accurate timestamps. This check helps in validation of certificates.

The recommended state for this setting is: Enabled(1)

Rationale:

Google Chrome uses a network time service to randomly track times from a trusted external service. This allows Google Chrome the ability for verification of a certificate's validity and is important for certificate validation.

Impact:

None - This is the default behavior.

Audit:

Navigate to the UI Path articulated in the Remediation section and confirm it is set as prescribed. This group policy setting is backed by the following registry location which should be set to 1:

HKEY_LOCAL_MACHINE\SOFTWARE\Policies\Google\Chrome:BrowserNetworkTimeQueriesE nabled

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Google time service
- $\pmb{6}$. **Ensure** Configuration is $\pmb{\mathsf{Set}}\ \pmb{\mathsf{t0}}$ Allow queries to a Google server to retrieve an accurate timestamp

Remediation:

To establish the recommended configuration via Group Policy, set the following UI path to Enabled:

Computer Configuration\Policies\Administrative Templates\Google\Google Chrome\Allow queries to a Google time service

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Google time service
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{t0}}$ Allow queries to a Google server to retrieve an accurate timestamp
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#BrowserNetworkTimeQueriesEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.4 <u>Standardize Time Synchronization</u> Standardize time synchronization. Configure at least two synchronized time sources across enterprise assets, where supported.		•	•
v7	6.1 <u>Utilize Three Synchronized Time Sources</u> Use at least three synchronized time sources from which all servers and network devices retrieve time information on a regular basis so that timestamps in logs are consistent.		•	•

1.5 (L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether audio processes in Google Chrome run in a sandbox.

NOTE: Security software setups within your environment might interfere with the sandbox.

The recommended state for this setting is: Enabled (1)

Rationale:

Having audio processes run in a sandbox ensures that if a website misuses audio processes that data may not be manipulated or exfiltrated from the system.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Audio sandbox
- 6. Ensure Configuration is set to Always sandbox the audio process

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Audio sandbox
- 6. Set Configuration to Always sandbox the audio process
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AudioSandboxEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.3 Ensure Adequate Audit Log Storage Ensure that logging destinations maintain adequate storage to comply with the enterprise's audit log management process.	•	•	•
v7	10.5 Ensure Backups Have At least One Non-Continuously Addressable Destination Ensure that all backups have at least one backup destination that is not continuously addressable through operating system calls.	•	•	•

1.6 (L1) Ensure 'Download location prompt' is set to 'Ask the user where to save the file before downloading' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome offers to download files automatically to the default download directory without prompting.

If this setting is enabled, users are always asked where to save each file before downloading.

The recommended state for this setting is: Enabled (1)

Rationale:

Users shall be prevented from the drive-by-downloads threat.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Download location prompt
- **6. Ensure** Configuration **is set to** Ask the user where to save the file before downloading

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Download location prompt
- $\mathbf{6.}$ Set Configuration $\mathbf{t0}$ Ask the user where to save the file before downloading
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#PromptForDownloadLocation
- 2. https://www.ghacks.net/2017/05/18/you-should-disable-automatic-downloads-in-chrome-right-now/

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.7 (L1) Ensure 'Background mode' is set to 'Disable background mode' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome allows for processes started while the browser is open to remain running once the browser has been closed. It also allows for background apps and the current browsing session to remain active after the browser has been closed.

With this setting Disabled, the browser will close its processes and will stop running background apps.

The recommended state for this setting is: Disabled (0)

Rationale:

If this setting is enabled, vulnerable or malicious plugins, apps and processes can continue running even after Chrome has closed.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Background mode
- 6. Ensure Configuration is set to Disable background mode

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Background mode
- 6. Set Configuration to Disable background mode
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#BackgroundModeEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

1.8 (L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome can use the Google Safe Search API to classify URLs as pornographic or not.

The recommended state for this setting is: Filter top level sites (but not embedded iframes) for adult content

Rationale:

Allowing search results to present sites that may have malicious content should be prohibited to help ensure users do not accidentally visit sites that are more prone to malicious content including spyware, adware, and viruses.

Impact:

Users' search results will be filtered and content such as adult text, videos, and images will not be shown.

NOTE: Using Googles Safe Search API may leak information which is typed/pasted by mistake into the omnibox, e.g. passwords, internal webservices, folder structures, etc.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select SafeSites URL filter
- **6. Ensure** Configuration **is set to** Filter top level sites (but not embedded iframes) for adult content

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select SafeSites URL filter
- $\mathbf{6.}$ Set Configuration $\mathbf{t0}$ Filter top level sites (but not embedded iframes) for adult content
- 7. Select save

Default Value:

Unset (Same as Enabled with "Do not filter sites for adult content", but user can change)

References:

1. https://chromeenterprise.google/policies/#SafeSitesFilterBehavior

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.9 (L1) Ensure 'Variations' is set to 'Enable Chrome variations' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Configuring this setting allows specifying which variations are allowed to be applied in Google Chrome. Variations provide a means for Google to offer modifications to Google Chrome without shipping a new version of the browser by selectively enabling or disabling already existing features.

- Enable all variations (0): Allows all variations to be applied to the browser (Default value).
- Enable variations concerning critical fixes only (1): Allows only variations considered critical security or stability fixes to be applied to Google Chrome.
- Disable all variations (2): Prevent all variations from being applied to the browser. Please note that this mode can potentially prevent the Google Chrome developers from providing critical security fixes in a timely manner and is thus not recommended.

The recommended state for this setting is: Enable all variations (0)

NOTE: Google strongly believes there is no added security benefit for turning this to critical fixes, as leaving it on increases the stability of the browser. Disabling variations can also prevent getting critical security updates in a timely manner.

Rationale:

Google strongly recommends leaving this setting at the default (0 = Enable all variations), so fixes are gradually enabled (or if necessary, rapidly disabled) via the Chrome Variations framework.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Variations
- 6. Ensure Configuration is set to Enable Chrome variations

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Variations
- 6. Set Configuration to Enable Chrome variations
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#ChromeVariations
- https://support.google.com/chrome/a/answer/9805991?p=Manage_the_Chrome_variations_framework&_ga=2.161804159.274800631.1631808382-2031399475.1630502681&visit_id=637674174853642930-2644817764&rd=1

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.4 Perform Automated Application Patch Management Perform application updates on enterprise assets through automated patch management on a monthly, or more frequent, basis.	•	•	•
v7	3.5 <u>Deploy Automated Software Patch Management Tools</u> Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.10 (L1) Ensure 'Certificate transparency legacy CA allowlist' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can disable the enforcing of Certificate Transparency requirements for a list of Legacy Certificate Authorities.

If this setting is disabled, certificates not properly publicly disclosed as required by Certificate Transparency are untrusted.

The recommended state for this setting is: Disabled (0)

Rationale:

Legacy Certificate Authorities shall follow the Certificate Transparency policy.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- Under User & browser settings, select Certificate transparency legacy CA allowlist
- 6. Ensure Certificate transparency legacy CA allowlist is empty

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- Under User & browser settings, Select Certificate transparency legacy CA allowlist
- 6. Remove all legacy CAs from Certificate transparency legacy CA allowlist
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#CertificateTransparencyEnforcementDisabledForLegacyCas

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.11 (L1) Ensure 'Certificate transparency CA allowlist' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can exclude certificates by their subjectPublicKeyInfo hashes from enforcing Certificate Transparency requirements. If this setting is disabled, no certificates are excluded from Certificate Transparency requirements.

The recommended state for this setting is: Disabled (0)

Rationale:

Certificate Transparency requirements shall be enforced for all certificates.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- Under User & browser settings, Select Certificate transparency CA allowlist
- 6. Ensure Certificate transparency CA allowlist is empty

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- Under User & browser settings, select Certificate transparency CA allowlist
- 6. Remove all CAs from Certificate transparency CA allowlist
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#CertificateTransparencyEnforcementDisabledForCas

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.12 (L1) Ensure 'Allowed certificate transparency URLs' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can specify URLs/hostnames for which Certificate Transparency will not be enforced. If this setting is disabled, no URLs are excluded from Certificate Transparency requirements.

The recommended state for this setting is: Disabled (0)

Rationale:

Certificates that are required to be disclosed via Certificate Transparency shall be treated for all URLs as untrusted if they are not disclosed according to the Certificate Transparency policy.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Allowed certificate transparency URLs
- 6. Ensure Allowed certificate transparency URLs is empty

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. **Select** Settings
- 5. Under User & browser settings, **Select** Allowed certificate transparency URLs
- 6. Remove all URLs from Allowed certificate transparency URLs
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#CertificateTransparencyEnforcementDisabledForUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.13 (L1) Ensure 'Browser history' is set to 'Always save browser history' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome is configured to save the browser history.

The recommended state for this setting is: Always save browser history

NOTE: This setting will preserve browsing history that could contain a user's personal browsing history. Please make sure that this setting is in compliance with organizational policies.

Rationale:

Browser history shall be saved as it may contain indicators of compromise.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Browser history
- 6. Ensure Configuration is set to Always save browser history

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Browser history
- 6. Set Configuration to Always save browser history
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change).

References:

1. https://chromeenterprise.google/policies/#SavingBrowserHistoryDisabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	3.5 <u>Deploy Automated Software Patch Management Tools</u> Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•

1.14 (L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting determines whether a local switch is configured for DNS interception checks. These checks attempt to discover if the browser is behind a proxy that redirects unknown host names.

The recommended state for this setting is: Enabled (1)

NOTE: This detection might not be necessary in an enterprise environment where the network configuration is known. It can be disabled to avoid additional DNS and HTTP traffic on startup and each DNS configuration change.

Rationale:

Disabling these checks could potentially allow DNS hijacking and poisoning.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select DNS interception checks enabled
- 6. Ensure Configuration is set to Perform DNS interception checks

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select DNS interception checks enabled
- 6. Set Configuration to Perform DNS interception checks
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#DNSInterceptionChecksEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.7 Remediate Detected Vulnerabilities Remediate detected vulnerabilities in software through processes and tooling on a monthly, or more frequent, basis, based on the remediation process.		•	•
v7	4.9 Log and Alert on Unsuccessful Administrative Account Login Configure systems to issue a log entry and alert on unsuccessful logins to an administrative account.		•	•

1.15 (L1) Ensure 'Component updates' is set to 'Enable updates for all components' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome's Component Updater updates several components of Google Chrome on a regular basis (applies only to Chrome browser components).

The recommended state for this setting is: Enabled (1)

NOTE: Updates to any component that does not contain executable code, does not significantly alter the behavior of the browser, or is critical for its security will not be disabled (E.g. certificate revocation lists and Safe Browsing data is updated regardless of this setting). FYI chrome://components lists all components, but not if they are affected by this setting.

NOTE: Google provided the following list of **some of the components** controlled by this setting:

- Recovery component
- Pnacl
- Floc
- Optimization hints
- SSL error assistant
- CRL set
- Origin trials
- SW reporter
- PKI metadata

Rationale:

Google Chrome Updater shall be used to keep the components bundled to Chrome up to date.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Component updates
- 6. Ensure Configuration is set to Enable updates for all components

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Component updates
- 6. Set Configuration to Enable updates for all components
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ComponentUpdatesEnabled

Additional Information:

To check the current components versions, navigate to chrome://components.

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.4 Perform Automated Application Patch Management Perform application updates on enterprise assets through automated patch management on a monthly, or more frequent, basis.	•	•	•
v7	3.5 <u>Deploy Automated Software Patch Management Tools</u> Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•

1.16 (L1) Ensure 'Enable globally scoped HTTP authentication cache' is set to 'Disabled' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether HTTP auth credentials may be automatically used in the context of another web site visited in Google Chrome.

The recommended state for this setting is: Disabled (0)

NOTE: This setting is intended to give enterprises depending on the legacy behavior a chance to update their login procedures and will be removed in the future.

Rationale:

Allowing HTTP auth credentials to be shared without the user's consent could lead to a user sharing sensitive information without their knowledge. Enabling this setting could also lead to some types of cross-site attacks that would allow users to be tracked across sites without the use of cookies.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Globally scoped HTTP authentication cache
- 6. Ensure Configuration is set to Block cross-origin authentication

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Globally scoped HTTP authentication cache
- $\mathbf{6.}$ Set Configuration $\mathbf{t0}$ HTTP authentication credentials are scoped to toplevel sites
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#GloballyScopeHTTPAuthCacheEnable d

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.17 (L1) Ensure 'Online revocation checks' is set to 'Do not perform online OCSP/CRL checks' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can reactivate soft-fail, online revocation checks although they can provide some benefit in most cases.

If this setting is disabled, unsecure online OCSP/CRL checks are no longer performed.

The recommended state for this setting is: Disabled (0)

Rationale:

CRLSets are primarily a means by which Chrome can quickly block certificates in emergency situations. As a secondary function they can also contain some number of non-emergency revocations. These latter revocations are obtained by crawling CRLs published by CAs.

Online (i.e. OCSP and CRL) checks are not, by default, performed by Chrome. The underlying system certificate library always performs these checks no matter what Chrome does, so enabling it here is redundant.

An attacker may block OCSP traffic and cause revocation checks to pass in order to cause usage of soft-fail behavior. Furthermore, the browser may leak what website is being accessed and who accesses it to CA servers.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Online revocation checks
- 6. Ensure Configuration is set to Do not perform online OCSP/CRL checks

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Online revocation checks
- 6. Set Configuration to Do not perform online OCSP/CRL checks
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#EnableOnlineRevocationChecks
- 2. https://medium.com/@alexeysamoshkin/how-ssl-certificate-revocation-is-broken-in-practice-af3b63b9cb3
- 3. https://dev.chromium.org/Home/chromium-security/crlsets

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.18 (L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting prevents Google Chrome from showing security warnings that potentially dangerous command-line flags are in use at its launch.

The recommended state of this setting is: Enabled (0)

Rationale:

If Google Chrome is being launched with potentially dangerous flags, this information should be exposed to the user as a warning. If not, the user may be unintentionally using non-secure settings and be exposed to security flaws.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Command-line flags
- **6. Ensure** Configuration **is set to** Show security warnings when potentially dangerous command-line flags are used

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Command-line flags
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{to} \; \texttt{Show} \; \; \texttt{security} \; \; \texttt{warnings} \; \; \texttt{when} \; \; \texttt{potentially} \; \; \texttt{dangerous} \; \; \\ \text{command-line flags are used}$
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#CommandLineFlagSecurityWarningsEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.3 Ensure Adequate Audit Log Storage Ensure that logging destinations maintain adequate storage to comply with the enterprise's audit log management process.	•	•	•
v7	7.2 <u>Disable Unnecessary or Unauthorized Browser or Email Client Plugins</u> Uninstall or disable any unauthorized browser or email client plugins or addon applications.		•	•

1.19 (L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can prevent third party software from injecting executable code into Chrome's processes.

The recommended state for this setting is: Enabled (1)

Rationale:

Third party software shall not be able to inject executable code into Chrome's processes.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third party code
- **6.** Ensure Configuration is set to Prevent third party code from being injected into Chrome

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third party code
- 6. Set Configuration to Prevent third party code from being injected into Chrome
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

 $1. \ \ \, \underline{https://chromeenterprise.google/policies/\#ThirdPartyBlockingEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	10.5 Ensure Backups Have At least One Non-Continuously Addressable Destination Ensure that all backups have at least one backup destination that is not continuously addressable through operating system calls.	•	•	•

1.20 (L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting allows extensions installed by enterprise policies to be allowed to use the Enterprise Hardware Platform API.

The recommended state for this setting is: Disabled (0)

Rationale:

It is recommended that this setting is disabled unless otherwise directed by Enterprise policies.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Enterprise Hardware Platform API
- **6. Ensure** Configuration **is set to** Do not allow managed extensions to use the Enterprise Hardware Platform API

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Enterprise Hardware Platform API
- $\mathbf{6.}$ \mathbf{Set} Configuration $\mathbf{t0}$ Do not allow managed extensions to use the Enterprise Hardware Platform API
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#EnterpriseHardwarePlatformAPIEnable d

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

1.21 (L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether user profiles are switched to ephemeral mode. In ephemeral mode, profile data is saved on disk for the length of the session and then the data is deleted after the session is over. Therefore, no data is saved to the device.

The recommended state for this setting is: Disabled (0)

Rationale:

Allowing use of ephemeral profiles allows a user to use Google Chrome with no data being logged to the system. Deleting browser data will delete information that may be important for a computer investigation and investigators such as Computer Forensics Analysts may not be able to retrieve pertinent information to the investigation.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Force ephemeral mode
- **6. Ensure** Erase local data when the browser is closed **is set to** Erase all local user data

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Force ephemeral mode
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Erase local data when the browser is closed $\pmb{\mathsf{to}}$ Erase all local user data
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ForceEphemeralProfiles

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

1.22 (L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether users are allowed to import autofill data from other browsers into Google Chrome.

If you set this setting to <code>Disabled</code>, users will be unable to perform an import of autofill data during Google Chrome run. This will also prevent users from importing data after Google Chrome has been set up.

The recommended state for this setting is: Disabled (0)

Rationale:

Allowing autofill data to be imported could potentially allow sensitive data such as personally identifiable information (PII) from a non-secured source into Google Chrome. Considering that storage of sensitive data should be handled with care, disabling this setting is recommended.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import autofill data
- 6. Ensure Configuration is set to Enable imports of autofill data

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import autofill data
- 6. Set Configuration to Enable imports of autofill data
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ImportAutofillFormData

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

1.23 (L1) Ensure 'Import homepage' is set to 'Disable imports of homepage' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether users are able to import homepage settings from another browser into Google Chrome as well as whether homepage settings are imported on first use.

If you set this setting to Disabled users will be unable to perform an import homepage settings from other browsers into Google Chrome.

The recommended state for this setting is: Disabled (0)

Rationale:

Having the homepage setting automatically imported or allowing users to import this setting from another browser into Google Chrome allows for the potential of compromised settings being imported into Google Chrome.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import homepage
- 6. Ensure Configuration is set to Disable imports of homepage

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import homepage
- 6. Set Configuration to Disable imports of homepage
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ImportHomepage

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

1.24 (L1) Ensure 'Import search engines' is set to 'Disable imports of search engines' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether users are able to import search engine settings from another browser into Google Chrome as well as whether said setting is imported on first use.

If you set this setting to Disabled users will be unable to perform an import of their search engine settings from other browsers into Google Chrome.

The recommended state for this setting is: Disabled (0)

Rationale:

Having search engine settings automatically imported or allowing users to import the settings from another browser into Google Chrome could allow for a malicious search engine to be set.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import search engines
- 6. Ensure Configuration is set to Disable imports of search engines

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import search engines
- 6. Set Configuration to Disable imports of search engines
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ImportSearchEngine

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

1.25 (L1) Ensure 'HSTS policy bypass list' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting allows a list of names to be specified that will be exempt from HTTP Strict Transport Security (HSTS) policy checks, then potentially upgraded from http:// to https://.

The recommended state for this setting is: Disabled (0)

Rationale:

Allowing hostnames to be exempt from HSTS checks could allow for protocol downgrade attacks and cookie hijackings.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select HSTS policy bypass list
- 6. Ensure List of hostnames that will bypass the HSTS policy check is empty

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select HSTS policy bypass list
- $\hbox{\bf 6. Remove all hostnames from $\tt List$ of hostnames that will by pass the $\tt HSTS$ policy check } \\$
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#HSTSPolicyBypassList

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.26 (L1) Ensure 'Override insecure origin restrictions' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can use a list of origins (URLs) or hostname patterns (such as "*.example.com") for which security restrictions on insecure origins will not apply and are prevented from being labeled as "Not Secure" in the omnibox.

The recommended state for this setting is: Disabled (0)

Rationale:

Insecure contexts shall always be labeled as insecure.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Override insecure origin restrictions
- **6. Ensure** Origin or hostname patterns to ignore insecure origins security restrictions **is empty**

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Override insecure origin restrictions
- **6.** Remove all hostnames from Origin or hostname patterns to ignore insecure origins security restrictions
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#OverrideSecurityRestrictionsOnInsecureOrigin

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

1.27 (L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting prevents the display of lookalike URL warnings on the sites listed. These warnings are typically shown on sites that Google Chrome believes might be trying to spoof another site with which the user is familiar.

- Disabled (0) or set to an empty list: Warnings may appear on any site the user visits.
- Enabled (1) and set to one or more domains: No lookalike warnings pages will be shown when the user visits pages on that domain.

The recommended state for this setting is: Disabled (0)

Rationale:

Look-alike domains are intentionally misleading to give users the false impression that they're interacting with trusted brands, leading to significant reputation damage, financial losses, and data compromise for established enterprises.

In addition, this technique is commonly used to host phishing sites, and often leads to account takeover attacks. Users are prompted to enter their credentials on a fake website, and scammers take control of their online accounts with little effort to engage in fraudulent activity.

Impact:

None - This is the default behavior.

NOTE: The only real impact is possible user annoyance if they are going to a legitimate site that is falsely considered fraudulent (a rare occurrence). This can be handled by adding the site to the allowlist and/or notifying Google of the false finding.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Suppress lookalike domain warnings on domains
- 6. Ensure Allowlisted Domains is empty

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Suppress lookalike domain warnings on domains
- 6. Remove all URLs from Allowlisted Domains
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#LookalikeWarningAllowlistDomains
- https://safebrowsing.google.com/
- 3. https://bugs.chromium.org/p/chromium/issues/entry?template=Safety+Tips+Appe als
- 4. https://krebsonsecurity.com/2018/03/look-alike-domains-and-visual-confusion/
- 5. https://www.phishlabs.com/blog/the-anatomy-of-a-look-alike-domain-attack/

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

1.28 (L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome will show a warning that appears when Google Chrome is running on a computer or operating system that is no longer supported.

The recommended state for this setting is: Disabled (0)

Rationale:

The user shall be informed if the used software is no longer supported.

Impact:

None - This is the default behavior.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Unsupported system warning
- **6. Ensure** Configuration **is set to** Allow Chrome to display warnings when running on an unsupported system

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. **Select** Settings
- 5. Under User & browser settings, Select Unsupported system warning
- $\pmb{6.}$ $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{t0}}$ Allow Chrome to display warnings when running on an unsupported system
- 7. Select Save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#SuppressUnsupportedOSWarning

Controls Version	Control	IG 1	IG 2	IG 3
v8	2.2 Ensure Authorized Software is Currently Supported Ensure that only currently supported software is designated as authorized in the software inventory for enterprise assets. If software is unsupported, yet necessary for the fulfillment of the enterprise's mission, document an exception detailing mitigating controls and residual risk acceptance. For any unsupported software without an exception documentation, designate as unauthorized. Review the software list to verify software support at least monthly, or more frequently.	•	•	•
v7	2.2 Ensure Software is Supported by Vendor Ensure that only software applications or operating systems currently supported by the software's vendor are added to the organization's authorized software inventory. Unsupported software should be tagged as unsupported in the inventory system.	•	•	•

1.29 (L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting specifies a list of URLs or patterns for which local IP addresses will be exposed by WebRTC.

The recommended state for this setting is: Disabled (0)

NOTE: This setting, if Enabled, weakens the protection of local IPs if needed by administrators.

Rationale:

Enabling this setting and allowing exposure of IP addresses can allow an attacker to gather information about the internal network that could potentially be utilized to breach and traverse a network.

Impact:

None - This is the default behavior.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** WebRTC ICE candidate URLs for local IPs
- 6. Ensure URLs for which local IPs are exposed in WebRTC ICE candidates is empty

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select WebRTC ICE candidate URLs for local IPs
- 6. Remove all URLs from URLs for which local IPs are exposed in WebRTC ICE candidates
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#WebRtcLocallpsAllowedUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2 Attack Surface Reduction

This section contains recommendations that help reduce the overall attack surface. Organizations should review these settings and any potential impacts to ensure they make sense within the environment since they restrict some browser functionality.

2.1 Content settings		

2.1.1 (L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Setting controls whether users can add exceptions to allow mixed content for specific sites.

- Do not allow any site to load mixed content (2)
- Allow users to add exceptions to allow mixed content (3)

The recommended state for this setting is: Enabled with the value of Do not allow any site to load mixed content (2)

NOTE: This policy can be overridden for specific URL patterns using the InsecureContentAllowedForUrls and InsecureContentBlockedForUrls policies.

Rationale:

Allowing mixed (secure / insecure) content from a site can lead to malicious content being loaded. Mixed content occurs if the initial request is secure over HTTPS, but HTTPS and HTTP content is subsequently loaded to display the web page. HTTPS content is secure. HTTP content is insecure.

Impact:

Users will not be able to mix content.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Control use of insecure content exceptions
- 6. Ensure Configuration is set to Do not allow any site to load mixed content

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Control use of insecure content exceptions
- 7. Select save

Default Value:

Unset (Same as Enabled: Allow users to add exceptions to allow mixed content, but user can change)

References:

1. https://chromeenterprise.google/policies/#DefaultInsecureContentSetting

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.5 <u>Subscribe to URL-Categorization service</u> Subscribe to URL categorization services to ensure that they are up-to-date with the most recent website category definitions available. Uncategorized sites shall be blocked by default.		•	•

2.1.2 (L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome has an API which allows the access to nearby Bluetooth devices from the browser with users consent.

- Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API (2)
- Allow sites to ask the user to grant access to a nearby Bluetooth device (3)

The recommended state for this setting is: Enabled with a value of Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API (2)

Rationale:

A malicious website could exploit a vulnerable Bluetooth device.

Impact:

If this setting is configured, websites can no longer access nearby Bluetooth devices via the API (this includes web cameras, headphones, and other Bluetooth devices) and the user will never be asked.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Bluetooth API
- **6. Ensure** Configuration **is set to** Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Bluetooth API
- $\pmb{6}$. \pmb{Set} Configuration \pmb{to} Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API
- 7. Select save

Default Value:

Unset (Same as Enabled: Allow sites to ask the user to grant access to a nearby Bluetooth device, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultWebBluetoothGuardSetting
- 2. https://webbluetoothcg.github.io/web-bluetooth/use-cases.html#security_privacy

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 Uninstall or Disable Unnecessary Services on Enterprise Assets and Software Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	15.9 <u>Disable Wireless Peripheral Access of Devices</u> Disable wireless peripheral access of devices (such as Bluetooth and NFC), unless such access is required for a business purpose.		•	•

2.1.3 (L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome has an API which allows access to connected USB devices from the browser

- Do not allow any site to request access to USB devices via the WebUSB API (2)
- Allow sites to ask the user to grant access to a connected USB device
 (3)

The recommended state for this setting is: Enabled with a value of Do not allow any site to request access to USB devices via the WebUSB API (2)

Rationale:

WebUSB is opening the doors for sophisticated phishing attacks that could bypass hardware-based two-factor authentication devices (e.g. Yubikey devices).

Impact:

If this setting is configured, websites can no longer access connected USB devices via the API (this includes web cameras, headphones, and other USB devices) which could also prevent some two factor authentication (2FA) USB devices from working properly.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select WebUSB API
- $\hbox{\bf 6. Ensure Configuration is Set to } \hbox{\tt Do not allow any site to request access to } \hbox{\tt USB devices via the WebUSB API}$

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Webush API
- ${f 6.}$ Set Configuration ${f t0}$ Do not allow any site to request access to USB devices via the WebUSB API
- 7. Select save

Default Value:

Unset (Same as Enabled: Allow sites to ask the user to grant access to a connected USB device, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultWebUsbGuardSetting
- 2. https://www.wired.com/story/chrome-yubikey-phishing-webusb/

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	13.7 <u>Manage USB Devices</u> If USB storage devices are required, enterprise software should be used that can configure systems to allow the use of specific devices. An inventory of such devices should be maintained.		•	•

2.1.4 (L2) Ensure 'Notifications' is set to 'Do not allow any site to show desktop notifications' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome offers websites the ability to display desktop notifications. These are push messages which are sent from the website operator through Google infrastructure to Chrome.

- Allow sites to show desktop notifications (1)
- Do not allow any site to show desktop notifications (2)
- Ask every time a site wants to show desktop notifications (3)

The recommended state for this setting is: Enabled with a value of Do not allow any site to show desktop notifications (2)

Rationale:

If the website operator decides to send messages unencrypted, Google's servers may process it as plain text. Furthermore, potentially compromised or faked notifications might trick users into clicking on a malicious link.

Impact:

If this setting is enabled and set to Do not allow any site to show desktop notifications, notifications will not be displayed for any sites and the user will not be asked.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Notifications
- **6. Ensure** Configuration **is set to** Do not allow any site to show desktop notifications

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Notifications
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Do not allow any site to show desktop notifications
- 7. Select save

Default Value:

Unset (Same as Enabled, with 'Ask every time a site wants to show desktop notifications')

References:

- 1. https://chromeenterprise.google/policies/#DefaultNotificationsSetting
- 2. https://www.google.com/chrome/privacy/whitepaper.html#notifications
- 3. https://medium.com/@BackmaskSWE/push-messages-isnt-secure-enough-69121c683cc6

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

2.1.5 (L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting will allow specified URLs to access file:// URLs in the PDF Viewer. By default all domains are blocked from accessing file:// URLs in the PDF Viewer

Rationale:

Blocking all domains, or a restricted list of domains, from opening a downloaded PDF file blocks the possibility of a malicious file being masked as a PDF. It could also block unknown or malicious code contained within the PDF that would run on the immediate opening within a browser tab.

Impact:

Users will be required to open PDF files manually in the PDF Viewer or in the organization's PDF viewing application.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Allow local file access to file:// URLs on these sites in the PDF Viewer
- 6. Ensure Allowed URLs is empty

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Allow local file access to file:// URLs on these sites in the PDF Viewer
- 6. Remove all URLs from Allowed URLs
- 7. Select Save

References:

Controls Version	Control	IG 1	IG 2	IG 3
v8	14.6 <u>Train Workforce Members on Recognizing and Reporting Security Incidents</u> Train workforce members to be able to recognize a potential incident and be able to report such an incident.	•	•	•
v7	3.3 Protect Dedicated Assessment Accounts Use a dedicated account for authenticated vulnerability scans, which should not be used for any other administrative activities and should be tied to specific machines at specific IP addresses.		•	•

2.2 Extensions

2.2.1 (L1) Ensure 'External extensions' is set to 'Block external extensions from being installed' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Enabling this setting blocks external extensions (an extension that is not installed from the Chrome Web Store) from being installed.

The recommended state for this setting is: Enabled (1)

Rationale:

Allowing users to install extensions from other locations (not the Chrome Web Store) can lead to malicious extensions being installed.

Impact:

User will only be allowed to install extension for the Chrome web store.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- **6. Ensure** External extensions **is set to** Block external extensions from being installed

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- 6. Set External extensions to Block external extensions from being installed
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#BlockExternalExtensions
- 2. https://developer.chrome.com/docs/extensions/mv2/external_extensions/

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.4 Restrict Unnecessary or Unauthorized Browser and Email Client Extensions Restrict, either through uninstalling or disabling, any unauthorized or unnecessary browser or email client plugins, extensions, and add-on applications.		•	•
v7	7.2 <u>Disable Unnecessary or Unauthorized Browser or Email Client Plugins</u> Uninstall or disable any unauthorized browser or email client plugins or addon applications.		•	•

2.2.2 (L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Enabling this setting allows you to specify which app/extension types are allowed.

Disabled (0): Results in no restrictions on the acceptable extension and app types.

The recommended state for this setting is: Enabled with the values of extension, hosted app, platform app, theme.

Rationale:

App or extension types that could be misused or are deprecated shall no longer be installed.

NOTE: Google has removed support for Chrome Apps which includes the types hosted_app and platform_app. The blog post indicates that these types will require a setting to be enabled for continued use through June 2022.

Impact:

Extensions already installed will be removed if its type is denylisted and the extension itself is not allowlisted.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- 6. Ensure Allowed types of apps and extensions is set to Extension, Hosted App, Chrome Packaged App, and Theme

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- **6. Set** Allowed types of apps and extensions **tO** Extension, Hosted App, Chrome Packaged App, **and** Theme
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#ExtensionAllowedTypes
- 2. https://blog.chromium.org/2020/08/changes-to-chrome-app-support-timeline.html
- 3. https://chromium.googlesource.com/chromium/src/+/HEAD/extensions/docs/extension_and_app_types.md

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.4 Restrict Unnecessary or Unauthorized Browser and Email Client Extensions Restrict, either through uninstalling or disabling, any unauthorized or unnecessary browser or email client plugins, extensions, and add-on applications.		•	•
v7	7.2 <u>Disable Unnecessary or Unauthorized Browser or Email Client Plugins</u> Uninstall or disable any unauthorized browser or email client plugins or addon applications.		•	•

2.2.3 (L1) Ensure 'App and extension install sources' Is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Enabling this setting allows you to specify which extensions the users can NOT install. Extensions already installed will be removed if blocklisted.

Disabled (0): then the user can install any extension in Google Chrome.

The recommended state for this setting is: Enabled with a value of *

NOTE: Chrome does offer a more granular permission-based configuration called Extension management settings if blocklisting all extensions is too aggressive, which allows an organization to drill down to the exact permissions that they want to lock down. The extensions management settings require more coordination and effort to understand what the security requirements are to block site and device permissions globally as well as more IT management to deploy. The benefit would be allowing access to more extensions to their end-users. See link in reference section

NOTE: If Chrome Cleanup is Disabled, users may want to configure the extension blocklist instead of using the Extension Management option. Chrome Cleanup can help protect against malicious extensions when paired with the Extension Management setting.

Rationale:

This can be used to block extensions that could potentially allow remote control of the system through the browser. If there are extensions needed for securing the browser or for enterprise use, these can be enabled by configuring either the setting Configure extension installation allowlist or the setting Extension management settings.

Impact:

Any installed extension will be removed unless it is specified on the extension allowlist. If an organization is using any approved password managers, ensure that the extension is added to the allowlist.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- 6. Ensure App and extension install sources is empty

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, select Additional Settings
- 6. Remove all URLs from ${\tt App}\,$ and extension install sources
- 7. Select save

Default Value:

Unset (Same as Disabled, and users can change)

References:

1. https://chromeenterprise.google/policies/#ExtensionInstallBlocklist

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.4 Restrict Unnecessary or Unauthorized Browser and Email Client Extensions Restrict, either through uninstalling or disabling, any unauthorized or unnecessary browser or email client plugins, extensions, and add-on applications.		•	•
v7	7.2 <u>Disable Unnecessary or Unauthorized Browser or Email Client Plugins</u> Uninstall or disable any unauthorized browser or email client plugins or addon applications.		•	•

2.2.4 (L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting will block any site from accessing the storage session from any other site. This will block third party trackers that are embedded on multiple sites from tracking a user across the sites they visit. Blocking third party access to the user agent will not allow sites to infer data about the user from the data from another site.

It can be configured to either:

- Enabled (1): Allow third-party storage partitioning to be enabled.
- Disabled (2): Block third-party storage partitioning from being enabled.

Rationale:

Setting this requires that user agent state needs to be keyed by more than a single origin or site. It can also defend against timing attacks on web privacy.

Impact:

Enforcing this may cause users to experience issues with sites they regularly visit that already grant access to third-parties.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Third-party storage partitioning
- $\textbf{6. Ensure} \; \texttt{Configuration} \; \textbf{is} \; \textbf{Set} \; \textbf{to} \; \texttt{Block} \; \; \texttt{third-party} \; \; \texttt{storage} \; \; \texttt{partitioning} \; \; \texttt{from} \; \; \\ \text{being enabled}$

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third-party storage partitioning
- $\pmb{6.}$ $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{t0}}$ Block third-party storage partitioning from being enabled
- 7. Select save

Default Value:

Not Configured

References:

- 1. https://chromeenterprise.google/policies/#DefaultThirdPartyStoragePartitioningS etting
- 2. https://privacycg.github.io/storage-partitioning/

Controls Version	Control	IG 1	IG 2	IG 3
v8	14.6 <u>Train Workforce Members on Recognizing and Reporting Security Incidents</u> Train workforce members to be able to recognize a potential incident and be able to report such an incident.	•	•	•
v7	3.3 Protect Dedicated Assessment Accounts Use a dedicated account for authenticated vulnerability scans, which should not be used for any other administrative activities and should be tied to specific machines at specific IP addresses.		•	•

2.2.5 (L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting will block specific sites your organization selects from accessing the storage session from any other site. This will allow an organization to block third party trackers that are embedded on multiple sites from tracking a user across the sites they visit. It will also allow blocking third party access to the user agent and to infer data about the user from the data from another site.

Setting the Level 2 recommendation Block third-party storage partitioning from being enabled will remove any sites listed in Allow third-party partitioning to be enabled and block all sites.

Rationale:

If your organization does not want to block all third-party sites from accessing the user agent, you can configure a curated list of sites to block.

Impact:

This might cause the user experience to vary from allowed sites to blocked sites.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third-party storage partitioning
- 6. Ensure Third-party storage partitioning is set to your organization's requirements

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third-party storage partitioning
- 6. Set Third-party storage partitioning to to your organization's requirements
- 7. Select save

References:

- 1. https://chromeenterprise.google/policies/#ThirdPartyStoragePartitioningBlockedF or Origins
- 2. https://groups.google.com/a/chromium.org/g/blink-dev/c/24hK6DKJnqY?pli=1

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2.2.6 (L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This policy setting controls extension management settings for Google Chrome, specifically v2 extensions. This policy setting is being sunsetted as Google develops the Manifest v3, but that rollout is currently postponed.

The policy can be configured to:

- **Default (0):** Default browser behavior
- Disabled (1): Manifest v2 is disabled
- Enabled (2): Manifest v2 is enabled
- Forced Only (3): Manifest v2 is enabled for forced extensions only

Rationale:

Setting this to Forced Only will not allow users to install any additional v2 extensions, and all existing, non-forced, v2 extensions will be disabled.

Impact:

Users that use extensions regularly will have a set of them blocked, which will change their user experience.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Manifest v2 extension availability
- **6. Ensure** Configuration **is set to** Enable force-installed manifest v2 extensions on the sign-in screen

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Manifest v2 extension availability
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{t0} \; \texttt{Enable} \; \; \texttt{force-installed} \; \; \texttt{manifest} \; \; \texttt{v2} \; \; \texttt{extensions} \; \; \texttt{on} \; \; \texttt{the} \; \; \\ \text{sign-in screen}$
- 7. Select save

References:

1. https://chromeenterprise.google/policies/#ExtensionManifestV2Availability

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.2 Establish and Maintain a Remediation Process Establish and maintain a risk-based remediation strategy documented in a remediation process, with monthly, or more frequent, reviews.	•	•	•
v7	9.4 Apply Host-based Firewalls or Port Filtering Apply host-based firewalls or port filtering tools on end systems, with a default-deny rule that drops all traffic except those services and ports that are explicitly allowed.	•	•	•

2.2.7 (L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This policy disables any extensions in Google Chrome that were downloaded from the Chrome Web Store and are now unpublished. The policy can be configured to either:

- Enabled (0): Allow unpublished extensions
- **Disabled (1):** Disable unpublished extensions

If the value for ExtensionUnpublishedAvailability is not changed from the default, it will behave as it is enabled.

Note: Off-store extensions such as unpacked extensions installed using developer mode and extensions installed using the command-line switch are ignored. Force-installed extensions that are self-hosted are ignored. All version-pinned extensions are also ignored.

Rationale:

Disabling unpublished extensions will remove the ability to run any extensions that are no longer being updated or patched.

Impact:

This may disable extensions commonly used by users in your organization.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, **Select** Additional Settings
- **6. Ensure** Chrome Web Store unpublished extensions **is set to** Disable unpublished extensions

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Apps & extensions
- 5. Under User & browser settings, **Select** Additional Settings
- $\pmb{6.}$ $\pmb{\mathsf{Set}}$ Chrome Web Store unpublished extensions $\pmb{\mathsf{t0}}$ Disable unpublished extensions
- 7. Select save

Default Value:

Allow unpublished extensions

References:

1. https://chromeenterprise.google/policies/#ExtensionUnpublishedAvailability

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.2 Establish and Maintain a Remediation Process Establish and maintain a risk-based remediation strategy documented in a remediation process, with monthly, or more frequent, reviews.	•	•	•
v7	9.4 Apply Host-based Firewalls or Port Filtering Apply host-based firewalls or port filtering tools on end systems, with a default-deny rule that drops all traffic except those services and ports that are explicitly allowed.	•	•	•

2.3 HTTP authentication		

2.3.1 (L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Specifies which HTTP authentication schemes are supported by Google Chrome.

Disabled (0): Allows all supported authentication schemes.

The recommended state for this setting is: Enabled with the value of ntlm, negotiate

Rationale:

Possible values are 'basic', 'digest', 'ntlm' and 'negotiate'. Basic and Digest authentication do not provide sufficient security and can lead to submission of user passwords in plaintext or minimal protection (Integrated Authentication is supported for negotiate and ntlm challenges only).

Impact:

If some legacy application(s) or website(s) required insecure authentication mechanisms they will not work correctly.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Supported authentication schemes
- 6. Ensure Configuration is set to NTLM and Negotiate

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Supported authentication schemes
- 6. Set Configuration to NTLM and Negotiate
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AuthSchemes

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.10 Encrypt Sensitive Data in Transit Encrypt sensitive data in transit. Example implementations can include: Transport Layer Security (TLS) and Open Secure Shell (OpenSSH).		•	•
v7	16.5 Encrypt Transmittal of Username and Authentication Credentials Ensure that all account usernames and authentication credentials are transmitted across networks using encrypted channels.		•	•

2.4 Native Messaging		

2.4.1 (L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Allows you to specify which native messaging hosts should not be loaded.

Disabled (0): Google Chrome will load all installed native messaging hosts.

The recommended state for this setting is: Enabled with a value of *

NOTE: This needs to be handled carefully. If an extension is enabled, yet can't communicate with its backend code, it could behave in strange ways which results in helpdesk tickets + support load.

Rationale:

For consistency with Plugin and Extension policies, native messaging should be blocklisted by default, requiring explicit administrative approval of applications for allowlisting. An example of an application that uses native messaging is the 1Password password manager.

Impact:

A blocklist value of '*' means all native messaging hosts are blocklisted unless they are explicitly listed in the allowlist.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Native Messaging blocked hosts
- 6. Ensure Prohibited Native Messaging hosts is set to *

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Native Messaging blocked hosts
- 6. Set Prohibited Native Messaging hosts to *
- 7. Select save

Default Value:

Unset (Same as Disabled, and users can change)

References:

1. https://chromeenterprise.google/policies/#NativeMessagingBlocklist

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.4 Restrict Unnecessary or Unauthorized Browser and Email Client Extensions Restrict, either through uninstalling or disabling, any unauthorized or unnecessary browser or email client plugins, extensions, and add-on applications.		•	•
v7	7.2 <u>Disable Unnecessary or Unauthorized Browser or Email Client Plugins</u> Uninstall or disable any unauthorized browser or email client plugins or addon applications.		•	•

2.5 Password manager	

2.5.1 (L1) Ensure 'Password manager' is Explicitly Configured (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome has a built-in password manager to store passwords for users. Chrome will use local authentication to allow users to gain access to these passwords.

The recommended state for this setting is: Explicitly set to Enabled (1) or Disabled (0) based on the organization's needs.

NOTE: If you choose to Enable this setting, please review Disable synchronization of data with Google and ensure this setting is configured to meet organizational requirements.

Rationale:

The Google Chrome password manager is <code>Enabled</code> by default and each organization should review and determine if they want to allow users to store passwords in the Browser. If another solution is used instead of the built-in Chrome option then an organization should configure the setting to <code>Disabled</code>.

Impact:

Organizationally dependent.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Password manager
- $\textbf{6. Ensure} \; \texttt{Configuration} \; \textbf{is} \; \textbf{Set} \; \textbf{to} \; \texttt{Always} \; \; \texttt{allow} \; \; \texttt{use} \; \; \texttt{of} \; \texttt{password} \; \; \texttt{manager} \; \textbf{Or} \; \texttt{Never} \\ \text{allow} \; \; \texttt{use} \; \; \texttt{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{password} \; \; \texttt{manager} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{password} \; \; \texttt{password} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{password} \; \; \texttt{password} \; \\ \textbf{of} \; \; \texttt{password} \; \; \texttt{password} \; \; \texttt{password} \; \; \texttt{password} \; \\ \textbf{of} \; \; \texttt{password} \; \; \; \texttt{password} \; \; \texttt{password} \; \; \; \texttt{passwor$

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Password manager
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{to} \; \texttt{Always} \; \; \texttt{allow} \; \; \texttt{use} \; \; \texttt{of} \; \texttt{password} \; \; \texttt{manager} \; \textbf{Of} \; \texttt{Never} \; \; \texttt{allow} \; \; \\ \texttt{use} \; \; \texttt{of} \; \; \texttt{password} \; \; \texttt{manager} \; \\$
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#PasswordManagerEnabled
- 2. https://www.ncsc.gov.uk/blog-post/what-does-ncsc-think-password-managers
- 3. https://pages.nist.gov/800-63-3/sp800-63b.html

Controls Version	Control			IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2.6 Remote access (Chrome Remote Desktop)

This section has recommendations specifically for configuring Chrome Remote Desktop.

2.6.1 (L1) Ensure 'Remote support connections' is set to 'Prevent remote support connections' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This is a setting for Chrome Remote desktop. If this setting is Disabled, the remote access host service cannot be started or configured to accept incoming connections.

- Disabled (0): Prevent remote access connections to this machine
- Enabled (1): Allow remote access connections to this machine

The recommended state for this setting is: Disabled (0)

Rationale:

Only approved remote access systems should be used.

NOTE: If Chrome Remote Desktop is approved and required for use, then this setting can be ignored.

Impact:

This setting will disable Chrome Remote Desktop. In general, Chrome Remote Desktop is not used by most businesses, so disabling it should have no impact.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Remote support connections
- 6. Ensure Configuration is set to Prevent remote support connections

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Remote support connections
- 6. Set Configuration to Prevent remote support connections
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#RemoteAccessHostAllowRemoteAccessConnections
- 2. https://remotedesktop.google.com/?pli=1

Controls Version	Control	IG 1	IG 2	IG 3
v8	13.5 Manage Access Control for Remote Assets Manage access control for assets remotely connecting to enterprise resources. Determine amount of access to enterprise resources based on: up-to-date antimalware software installed, configuration compliance with the enterprise's secure configuration process, and ensuring the operating system and applications are up-to-date.		•	•
v7	12.12 Manage All Devices Remotely Logging into Internal Network Scan all enterprise devices remotely logging into the organization's network prior to accessing the network to ensure that each of the organization's security policies has been enforced in the same manner as local network devices.			•

2.6.2 (L1) Ensure 'Remote access hosts' is set with a domain defined in 'Remote access host domain' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome allows the configuration of a list of domains that are allowed to access the user's system. When enabled, remote systems can only connect if they are one of the specified domains listed.

Setting this to an empty list (Disabled) allows remote systems from any domain to connect to this user's system.

The recommended state for this setting is: Enabled (1) and at least one domain set

NOTE: The list of domains is organization specific.

Rationale:

Remote assistance connections shall be restricted.

Impact:

If this setting is enabled, only systems from the specified domains can connect to the user's system.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Remote access hosts
- 6. Ensure Remote access host domain is set to your organization's required domain

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Remote access hosts
- 6. Set Remote access host domain to your organization's required domain
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#RemoteAccessHostClientDomainList

Controls Version	Control	IG 1	IG 2	IG 3
v8	13.5 Manage Access Control for Remote Assets Manage access control for assets remotely connecting to enterprise resources. Determine amount of access to enterprise resources based on: up-to-date antimalware software installed, configuration compliance with the enterprise's secure configuration process, and ensuring the operating system and applications are up-to-date.		•	•
v7	12.12 Manage All Devices Remotely Logging into Internal Network Scan all enterprise devices remotely logging into the organization's network prior to accessing the network to ensure that each of the organization's security policies has been enforced in the same manner as local network devices.			•

2.6.3 (L1) Ensure 'Firewall traversal' is set to 'Disable firewall traversal' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome enables the usage of STUN servers which allows remote clients to discover and connect to a machine even if they are separated by a firewall. By disabling this feature, in conjunction with filtering outgoing UDP connections, the machine will only allow connections from machines within the local network.

The recommended state for this setting is: Disabled (0)

Rationale:

If this setting is enabled, remote clients can discover and connect to these machines even if they are separated by a firewall.

Impact:

If this setting is disabled and outgoing UDP connections are filtered by the firewall, this machine will only allow connections from client machines within the local network.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Firewall traversal
- 6. Ensure Configuration is set to Disable firewall traversal

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Firewall traversal
- 6. Set Configuration to Disable firewall traversal
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#RemoteAccessHostFirewallTraversal

Controls Version	Control	IG 1	IG 2	IG 3
v8	13.5 Manage Access Control for Remote Assets Manage access control for assets remotely connecting to enterprise resources. Determine amount of access to enterprise resources based on: up-to-date anti-malware software installed, configuration compliance with the enterprise's secure configuration process, and ensuring the operating system and applications are up-to-date.		•	•
v7	12.12 Manage All Devices Remotely Logging into Internal Network Scan all enterprise devices remotely logging into the organization's network prior to accessing the network to ensure that each of the organization's security policies has been enforced in the same manner as local network devices.			•

2.6.4 (L1) Ensure 'Firewall traversal' is set to 'Disable the use of relay servers' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome allows the use of relay servers when clients are trying to connect to this machine and a direct connection is not available.

- Disable (0): The use of relay servers by the remote access host is not allowed
- Enabled (1): The use of relay servers by the remote access host is allowed

The recommended state for this setting is: Disabled (0)

Rationale:

Relay servers shall not be used to circumvent firewall restrictions.

Impact:

If this setting is disabled, remote clients can not use relay servers to connect to this machine.

NOTE: Setting this to Disabled doesn't turn remote access off, but only allows connections from the same network (not NAT traversal or relay).

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Firewall traversal
- $\pmb{6}$. Ensure Configuration is set to Disable the use of relay servers

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Firewall traversal
- 6. Set Configuration to Disable the use of relay servers
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#RemoteAccessHostAllowRelayedConnection

Controls Version	Control	IG 1	IG 2	IG 3
v8	13.5 Manage Access Control for Remote Assets Manage access control for assets remotely connecting to enterprise resources. Determine amount of access to enterprise resources based on: up-to-date antimalware software installed, configuration compliance with the enterprise's secure configuration process, and ensuring the operating system and applications are up-to-date.		•	•
v7	12.12 Manage All Devices Remotely Logging into Internal Network Scan all enterprise devices remotely logging into the organization's network prior to accessing the network to ensure that each of the organization's security policies has been enforced in the same manner as local network devices.			•

2.7 First-Party Sets Settings

Controls policies for the First-Party Sets feature.

2.7.1 (L1) Ensure 'First-Party Sets' Is Set to 'Disable First-Party Sets for all affected users' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This policy controls access to the First-Party Sets. First-party Sets are a way for sites to declare relationships with each other and enable limited cross-site cookie access for specific, user-facing purposes. It can configured to either:

- Disabled (0): Disable First-Party Sets for all affected users
- Enabled (1): Enable First-Party Sets for all affected users

Rationale:

Setting this policy will not allow sites to declare the relationships that allow them to access the cross-site cookies.

Impact:

This may cause unexpected behavior as a user moves between affiliated sites.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select First-Party Sets
- **6. Ensure** Configuration **is set to** Disable First-Party Sets for all affected users

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select First-Party Sets
- 6. Set Configuration to Disable First-Party Sets for all affected users
- 7. Select save

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Enabled

References:

 ${\bf 1.} \ \ \underline{https://chromeenterprise.google/policies/\#FirstPartySetsEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.3 Ensure Adequate Audit Log Storage Ensure that logging destinations maintain adequate storage to comply with the enterprise's audit log management process.	•	•	•
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

2.8 Microsoft Active Directory Management Settings	

2.8.1 (L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication' (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This policy setting allows accounts backed by a Microsoft® cloud identity provider (i.e., Microsoft Azure Active Directory or the consumer Microsoft account identity provider) to be signed into web properties using that identity automatically. It can be configured to either:

- Disabled (0): Disable Microsoft® cloud authentication
- Enabled (1): Enable Microsoft® cloud authentication

If the value for CloudAPAuthEnabled is not changed from the default, it will behave as if it is disabled.

Rationale:

Enabling this policy setting allows users to use Microsoft Cloud Authentication for any site that requires CA (Cloud Authentication) and does not require an extension.

Impact:

There should be no impact to the user.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Azure Cloud Authentication
- 6. Ensure Configuration is set to Enable Azure cloud authentication

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Azure Cloud Authentication
- 6. Set Configuration to Enable Azure cloud authentication
- 7. Select save

Default Value:

Unset (Disabled)

References:

1. https://chromeenterprise.google/policies/#CloudAPAuthEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2.9 (L1) Ensure 'Download restrictions' is set to 'Block malicious downloads' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can block certain types of downloads, and won't let users bypass the security warnings, depending on the classification of Safe Browsing.

- No special restrictions. Default. (0, Disabled) (Default)
- Block malicious downloads and dangerous file types. (1)
- Block malicious downloads, uncommon or unwanted downloads and dangerous file types. (2)
- Block all downloads. (3)
- Block malicious downloads. Recommended. (4)

The recommended state for this setting is: Enabled with a value of Block malicious downloads. Recommended. (4)

NOTE: These restrictions apply to downloads triggered from webpage content, as well as the Download link... menu option. They don't apply to the download of the currently displayed page or to saving as PDF from the printing options.

Rationale:

Users shall be prevented from downloading malicious file types, and shall not be able to bypass security warnings.

Impact:

If this setting is enabled, all downloads are allowed, except for those that carry Safe Browsing warnings. These are downloads that have been identified as risky or from a risky source by the **Google Safe Browsing Global intelligence engine**.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Download restrictions
- 6. Ensure Configuration is set to Block malicious downloads

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Download restrictions
- 6. Set Configuration to Block malicious downloads
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DownloadRestrictions
- 2. https://developers.google.com/safe-browsing

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.3 Ensure Adequate Audit Log Storage Ensure that logging destinations maintain adequate storage to comply with the enterprise's audit log management process.	•	•	•
v7	10.5 Ensure Backups Have At least One Non-Continuously Addressable Destination Ensure that all backups have at least one backup destination that is not continuously addressable through operating system calls.	•	•	•

2.10 (L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls whether a user is able to proceed to a webpage when an invalid SSL certificate warning has occurred.

The recommended state for this setting is: Disabled (0)

Rationale:

Sites protected by SSL should always be recognized as valid in the web browser. Allowing a user to make the decision as to whether there appears to be an invalid certificate could open an organization up to users visiting a site that is otherwise not secure and/or malicious in nature.

Impact:

Users will not be able to click past the invalid certificate error to view the website.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select SSL error override
- 6. Ensure Configuration is Set to Block users from clicking through SSL warnings

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select SSL error override
- 6. Set Configuration to Block users from clicking through SSL warnings
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#SSLErrorOverrideAllowed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

2.11 (L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google provides the Safe Browsing service. It shows a warning page when users navigate to sites that are flagged as potentially malicious.

Disabled (0): Users can choose to proceed to the flagged site after the warning appears.

The recommended state for this setting is: Enabled (1)

Rationale:

Malicious web pages are widely spread on the internet and pose the most significant threat to the user today. Users shall be prevented from navigating to potentially malicious web content.

Impact:

Enabling this setting prevents users from proceeding anyway from the warning page to the malicious site. In some cases legitimate sites could be blocked and users would be prevented from accessing.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. **Select** Settings
- 5. Under User & browser settings, **Select** Disable bypassing Safe Browsing warnings
- **6. Ensure** Configuration **is set to** Do not allow user to bypass Safe Browsing warning

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Disable bypassing Safe Browsing warnings
- $\pmb{6}.$ $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Do not allow user to bypass Safe Browsing warning
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#DisableSafeBrowsingProceedAnyway

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

2.12 (L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls if every website will load into its own process.

Disabled (0): Doesn't turn off site isolation, but it lets users opt out.

The recommended state for this setting is: Enabled (1)

Rationale:

Chrome will load each website in its own process. Even if a site bypasses the sameorigin policy, the extra security will help stop the site from stealing your data from another website.

Impact:

If the policy is enabled, each site will run in its own process which will cause the system to use more memory. You might want to look at the <code>Enable Site Isolation for specified origins policy setting to get the best of both worlds - isolation and limited impact for users - by using <code>Enable Site Isolation for specified origins with a list of the sites you want to isolate.</code></code>

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Site isolation
- $\pmb{6}$. Ensure Configuration is $\pmb{\mathsf{Set}}\ \pmb{\mathsf{to}}$ Require Site Isolation for all websites, as well as any origins below

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Site isolation
- ${f 6.}$ Set Configuration ${f t0}$ Require Site Isolation for all websites, as well as any origins below
- 7. Select Save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#SitePerProcess
- 2. https://www.chromium.org/Home/chromium-security/site-isolation

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.3 Ensure Adequate Audit Log Storage Ensure that logging destinations maintain adequate storage to comply with the enterprise's audit log management process.	•	•	•
v7	10.5 Ensure Backups Have At least One Non-Continuously Addressable Destination Ensure that all backups have at least one backup destination that is not continuously addressable through operating system calls.	•	•	•

2.13 (L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting ensures that web search results with Google are performed with SafeSearch set to always active. Disabled means SafeSearch in Google Search is not enforced.

The recommended state for this setting is: Enabled (1)

Rationale:

Allowing search results to present sites that may have malicious content should be prohibited to help ensure users do not accidentally visit sites that are more prone to malicious content including spyware, adware, and viruses.

Impact:

Users search results will be filtered and content such as adult text, videos and images will not be shown.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select SafeSearch and Restricted Mode
- **6. Ensure** Configuration **is set to** Always use Safe Search for Google Web Search queries

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select SafeSearch and Restricted Mode
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Always use Safe Search for Google Web Search queries
- 7. Select save

Default Value:

Unset (Same a Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ForceGoogleSafeSearch

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.3 Maintain and Enforce Network-Based URL Filters Enforce and update network-based URL filters to limit an enterprise asset from connecting to potentially malicious or unapproved websites. Example implementations include category-based filtering, reputation-based filtering, or through the use of block lists. Enforce filters for all enterprise assets.		•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

2.14 (L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can notify users that it must be restarted to apply a pending update. This setting controls how users are notified to relaunch Chrome browser or restart their ChromeOS device to get the latest update.

The control can be set to one of three options:

- No relaunch notification: Activates a minimal default level of notifications.
 Chrome browser indicates to users that a relaunch is needed via subtle changes to its menu. In ChromeOS, a notification in the system tray prompts the user to relaunch.
- Show notification recommending relaunch: Users see a recurring message that
 they should relaunch Chrome browser or restart their ChromeOS device. Users
 can close the notification and keep using the old version of Chrome browser or
 ChromeOS until they choose to relaunch Chrome browser or restart their
 ChromeOS device.
- Force relaunch after a period: Users can close the notification but will see a recurring message that they need to relaunch Chrome browser or restart their ChromeOS device within a certain amount of time.

The recommended state for this setting is: Enabled with a value of Show a recurring prompt to the user indicating that a relaunch is required (2)

Rationale:

The end-user will receive a notification informing them that an update has been applied and that the browser must be restarted in order for the update to be completed. Once updates have been pushed by the organization it is pertinent that the update is applied as soon as possible. Enabling this notification will ensure that users restart their browser in a timely fashion.

Impact:

A recurring warning will be shown to the user indicating that a browser relaunch will be forced once the notification period passes. The user's session is restored after the relaunch of Google Chrome.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Relaunch notification
- 6. Ensure Configuration is set to Show notification recommending relaunch

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Relaunch notification
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{to} \; \texttt{Show notification recommending relaunch}$
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#RelaunchNotification

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.4 Perform Automated Application Patch Management Perform application updates on enterprise assets through automated patch management on a monthly, or more frequent, basis.	•	•	•
v7	3.5 Deploy Automated Software Patch Management Tools Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•

2.15 (L1) Ensure 'Proxy mode' is Not Set to 'Always auto detect the proxy' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome offers the functionality to configure the proxy settings by automatic discovery using WPAD (Web Proxy Auto-Discovery Protocol). Setting this configures the proxy settings for Chrome and ARC-apps, which ignore all proxy-related options specified from the command line.

Disabled (0): Lets users choose their proxy settings.

The recommended state for this setting is: Enabled and the value of ProxyMode is not set to auto detect

Rationale:

Attackers may abuse the WPAD auto-config functionality to supply computers with a PAC file that specifies a rogue web proxy under their control.

Impact:

If the policy is enabled, the proxy configuration will no longer be discovered using WPAD.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Proxy mode
- 6. Ensure Configuration is not set to Always auto detect the proxy

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Proxy mode
- 6. Set Configuration to a setting other than Always auto detect the proxy
- 7. Select save

Default Value:

Unset (Same as Disabled, and users can change)

References:

- 1. https://chromeenterprise.google/policies/#ProxySettings
- 2. http://www.ptsecurity.com/download/wpad_weakness_en.pdf
- 3. https://www.blackhat.com/us-16/briefings.html#crippling-https-with-unholy-pac

Controls Version	Control	IG 1	IG 2	IG 3
v8	13.10 Perform Application Layer Filtering Perform application layer filtering. Example implementations include a filtering proxy, application layer firewall, or gateway.			•
v7	12.9 <u>Deploy Application Layer Filtering Proxy Server</u> Ensure that all network traffic to or from the Internet passes through an authenticated application layer proxy that is configured to filter unauthorized connections.			•

2.16 (L2) Ensure 'Online revocation checks' is set to 'Perform online OCSP/CRL checks' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome performs revocation checking for server certificates that successfully validate and are signed by locally-installed CA certificates. If Google Chrome is unable to obtain revocation status information, such certificates will be treated as revoked ('hard-fail').

Disabled: Google Chrome uses existing online revocation-checking settings.

The recommended state for this setting is: Enabled (1)

Rationale:

Certificates shall always be validated.

Impact:

A revocation check will be performed for server certificates that successfully validate and are signed by locally-installed CA certificates. if the OCSP server goes down, then this will hard-fail and prevent browsing to those sites.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Online revocation checks
- 6. Ensure Configuration is set to Perform online OCSP/CRL checks

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Online revocation checks
- 6. Set Configuration to Perform online OCSP/CRL checks
- 7. Select save

Default Value:

Unset (Same as Disabled, and users can change)

References:

1. https://chromeenterprise.google/policies/#RequireOnlineRevocationChecksForLocalAnchors

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

2.17 (L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome allows to set the time period, in milliseconds, over which users are notified that it must be relaunched to apply a pending update.

If not set, or Disabled, the default period of 604800000 milliseconds (7 days) is used.

The recommended state for this setting is: Enabled with value 86400000 (1 day)

Rationale:

This setting is a notification for the end-user informing them that an update has been applied and that the browser must be restarted in order for the update to be completed. Once updates have been pushed by the organization it is pertinent that said update takes effect as soon as possible. Enabling this notification will ensure users restart the browser in a timely fashion.

Impact:

After this time period, the user will be repeatedly informed of the need for an update until a Browser restart is completed.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Relaunch notification
- 6. Ensure Time Period (hours) is set to a value ≤168
- 7. Ensure Initial quiet period (hours) is set to a value < the value of Time Period (hours)

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Relaunch notification
- 6. Set Time Period (hours) to a value ≤168
- 7. Set Initial quiet period (hours) to a value < the value of Time Period (hours)
- 8. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#RelaunchNotificationPeriod

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.4 Perform Automated Application Patch Management Perform application updates on enterprise assets through automated patch management on a monthly, or more frequent, basis.	•	•	•
v7	3.5 Deploy Automated Software Patch Management Tools Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•

2.18 (L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This policy setting controls the WebAuthn API and its interaction with sites that have a broken TLS certificate. It can be configured to either:

- Disabled (0): Do not allow WebAuthn API requests on sites with broken TLS certificates.
- Enabled (1): Allow WebAuthn API requests on sites with broken TLS certificates.

If the value for AllowWebAuthnWithBrokenTlsCerts is not changed from the default, it will behave as it is disabled.xempt.

Rationale:

Setting this policy will block the ability to authenticate to any website that does not have a valid TLS certificate since the identity of the site cannot be verified.

Impact:

There should be no user impact.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Authentication requests on sites with broken TLS certificates
- **6. Ensure** Configuration **is Set to** Do not allow WebAuthn API requests on sites with broken TLS certificates

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Authentication requests on sites with broken TLS certificates
- $\mathbf{6.}$ \mathbf{Set} Configuration $\mathbf{t0}$ Do not allow WebAuthn API requests on sites with broken TLS certificates
- 7. Select save

Default Value:

Unset (Disabled)

References:

1. https://chromeenterprise.google/policies/#AllowWebAuthnWithBrokenTlsCerts

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.10 Encrypt Sensitive Data in Transit Encrypt sensitive data in transit. Example implementations can include: Transport Layer Security (TLS) and Open Secure Shell (OpenSSH).		•	•
v8	14.4 <u>Train Workforce on Data Handling Best Practices</u> Train workforce members on how to identify and properly store, transfer, archive, and destroy sensitive data. This also includes training workforce members on clear screen and desk best practices, such as locking their screen when they step away from their enterprise asset, erasing physical and virtual whiteboards at the end of meetings, and storing data and assets securely.	•	•	•

2.19 (L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the defaults for clipboard permission access from sites. It can be configured to either:

- Disabled (0): Never send domain reliability data to Google
- Enabled (1): Domain Reliability data may be sent to Google depending on Chrome User Metrics (UMA) policy

If the value for <code>DomainReliabilityAllowed</code> is not changed from the default, it will behave as it is enabled.

Rationale:

Setting this policy to disabled can stop any accidental data leakage.

Impact:

There should be no impact on the user.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. **Select** Settings
- 5. Under User & browser settings, **Select** Allow reporting of domain reliability related data
- 6. Ensure Configuration is set to Never send domain reliability data to Google

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. **Under** User & browser settings, **Select** Allow reporting of domain reliability related data
- 6. Set Configuration to Never send domain reliability data to Google
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#DomainReliabilityAllowed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.1 Maintain Inventory of Administrative Accounts Use automated tools to inventory all administrative accounts, including domain and local accounts, to ensure that only authorized individuals have elevated privileges.		•	•

2.20 (L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the defaults for using Encrypted ClientHello (ECH). ECH is an extension to TLS and encrypts the initial handshake with a website that can only be decrypted by that website. Google Chrome may, or may not, use ECH based on 3 factors: sever support, HTTPS DNS record availability, or rollout status. It can be configured to either:

- Disabled (0): Disable the TLS Encrypted ClientHello experiment
- Enabled (1): Enable the TLS Encrypted ClientHello experiment

If the value for EncryptedClientHelloEnabled is not changed from the default, it will behave as it is enabled.

Rationale:

Previously all handshakes were in the open and could expose sensitive information like the name of the website that you are connecting to. Setting this policy will allow Google Chrome to use an encrypted hello, or handshake, with a website where it is supported, thus not exposing sensitive information.

Impact:

There should be no impact on the user.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select TLS encrypted ClientHello
- **6. Ensure** Configuration **is set to** Enable the TLS Encrypted ClientHello experiment

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select TLS encrypted ClientHello
- 6. Set Configuration to Enable the TLS Encrypted ClientHello experiment
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#EncryptedClientHelloEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.10 Encrypt Sensitive Data in Transit Encrypt sensitive data in transit. Example implementations can include: Transport Layer Security (TLS) and Open Secure Shell (OpenSSH).		•	•
v8	14.4 <u>Train Workforce on Data Handling Best Practices</u> Train workforce members on how to identify and properly store, transfer, archive, and destroy sensitive data. This also includes training workforce members on clear screen and desk best practices, such as locking their screen when they step away from their enterprise asset, erasing physical and virtual whiteboards at the end of meetings, and storing data and assets securely.	•	•	•

2.21 (L2) Ensure 'Enforce local anchor constraints' Is 'Enforce constraints in locally added trust anchors' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls constraints encoded into trust anchors loaded from the platform trust store. It can be configured to either:

- Disabled (0): Do not enforce constraints in locally added trust anchors
- Enabled (1): Enforce constraints in locally added trust anchors

If the value for EnforceLocalAnchorConstraintsEnabled is not changed from the default, it will behave as if it is enabled.

Rationale:

Setting this policy will not allow access to any sites that do not enforce constraints.

Impact:

Enabling this might cause certain internal sites to not properly load until they are updated.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Enforce local anchor constraints
- Ensure Configuration is set to Enforce constraints in locally added trust anchors

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Enforce local anchor constraints
- 6. Set Configuration to Enforce constraints in locally added trust anchors
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#EnforceLocalAnchorConstraintsEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

2.22 (L1) Ensure 'File/directory picker without user gesture' Is Not Set (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the ability for <code>showOpenFilePicker()</code>, <code>showSaveFilePicker()</code>, and <code>showDirectoryPicker()</code> web APIs to be called without user interaction.

If the value for FileOrDirectoryPickerWithoutGestureAllowedForOrigins is not changed from the default, it will behave as if it is disabled.

Rationale:

Setting this policy would allow the URLs selected to call the <code>showOpenFilePicker()</code>, <code>showSaveFilePicker()</code>, and <code>showDirectoryPicker()</code> web APIs without any user gesture/interaction. This policy does not need to be set for this reason.

Impact:

Disabling this policy should have no impact on the user.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. **Under** User & browser settings, **select** File/directory picker without user gesture
- **6. Ensure** Allow file or directory picker APIs to be called without prior user gesture **is empty**

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. **Under** User & browser settings, **Select** File/directory picker without user gesture
- **6.** Remove all URLs from Allow file or directory picker APIs to be called without prior user gesture
- 7. Select save

Default Value:

Unset (Disabled)

References:

1. https://chromeenterprise.google/policies/#FileOrDirectoryPickerWithoutGestureAl-lowedForOrigins

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.2 Establish and Maintain a Remediation Process Establish and maintain a risk-based remediation strategy documented in a remediation process, with monthly, or more frequent, reviews.	•	•	•
v7	9.4 Apply Host-based Firewalls or Port Filtering Apply host-based firewalls or port filtering tools on end systems, with a default-deny rule that drops all traffic except those services and ports that are explicitly allowed.	•	•	•

2.23 (L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the Google Search Side Panel. It can be configured to either:

- Disabled (0): Disable Google Search Side Panel on all web pages
- Enabled (1): Enable Google Search Side Panel on all web pages

Rationale:

Setting this policy will not allow the Google Search Side Panel on any webpages.

Impact:

This should have no user impact.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Side Panel search
- 6. Ensure Configuration is set to Disable Side Panel search on all web pages

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Side Panel search
- 6. Set Configuration to Disable Side Panel search on all web pages
- 7. Select save

References:

 $1. \ \ \, \underline{https://chromeenterprise.google/policies/\#GoogleSearchSidePanelEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2.24 (L1) Ensure 'Http Allowlist' Is Properly Configured (Manual)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting allows administrators to list specific sites that will not be upgraded to HTTPS and will not show an error interstitial if HTTPS-First Mode is enabled.

Note: Wildcards (*, [*], etc.) are not allowed in the URL listings.

Rationale:

Setting this policy allows organizations to maintain access to servers that do not support HTTPS without having to disable HTTPS-First mode or HTTPS Upgrades.

Impact:

This should not have an impact on the user.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select HTTP Allowlist
- 6. Ensure Allowed HTTP URLs is set to your organization's requirements

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select HTTP Allowlist
- 6. Set Allowed HTTP URLs to your organization's requirements
- 7. Select save

References:

1. https://chromeenterprise.google/policies/#HttpAllowlist

Controls Version	Control	IG 1	IG 2	IG 3
v8	2.7 <u>Allowlist Authorized Scripts</u> Use technical controls, such as digital signatures and version control, to ensure that only authorized scripts, such as specific .ps1, .py, etc., files, are allowed to execute. Block unauthorized scripts from executing. Reassess bi-annually, or more frequently.			•
v7	2.5 Integrate Software and Hardware Asset Inventories The software inventory system should be tied into the hardware asset inventory so all devices and associated software are tracked from a single location.			•

2.25 (L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the ability for Google Chrome to upgrade to HTTPS from HTTP while navigating to certain sites. It can be configured to either:

- Disabled (0): Disable HTTPS Upgrades
- Enabled (1): HTTPS Upgrades may be applied depending on feature launch status

If the value for HttpsUpgradesEnabled is not changed from the default, it will behave as if it is enabled.

Rationale:

Enabling this setting will upgrade the connection to a site from HTTP to HTTPS where available, verifying the identity of the site visited.

Impact:

This should have no impact on the user.

Note: If there are internal sites/servers that use HTTP only, set those in the policy <code>HttpAllowlist</code>

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Automatic HTTPS upgrades
- 6. Ensure Configuration is set to Allow HTTPS upgrades

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Automatic HTTPS upgrades
- 6. Set Configuration to Allow HTTPS upgrades
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#HttpsUpgradesEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.5 <u>Securely Dispose of Data</u> Securely dispose of data as outlined in the enterprise's data management process. Ensure the disposal process and method are commensurate with the data sensitivity.	•	•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

2.26 (L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the ability for Google Chrome to allow legacy or insecure hashes during the TLS handshake. It can be configured to either:

- Disabled (0): Do Not Allow Insecure Hashes in TLS Handshakes
- Enabled (1): Allow Insecure Hashes in TLS Handshakes

If the value for InsecureHashesInTLSHandshakesEnabled is not changed from the default, it will behave as if it is enabled.

Rationale:

Setting this policy to disabled will block Google Chrome from using insecure hashes. Using insecure, or legacy, hashes could allow sensitive data to be exposed.

Impact:

Users would be blocked from visiting sites that do not support more secure hashes.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Insecure hashes in TLS handshakes
- **6.** Ensure Configuration is set to Do not allow insecure hashes in TLS handshakes

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, **Select** Insecure hashes in TLS handshakes
- 6. Set Configuration to Do not allow insecure hashes in TLS handshakes
- 7. Select save

Default Value:

Unset (Allow)

References:

1. https://chromeenterprise.google/policies/#InsecureHashesInTLSHandshakesEna bled

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.10 Encrypt Sensitive Data in Transit Encrypt sensitive data in transit. Example implementations can include: Transport Layer Security (TLS) and Open Secure Shell (OpenSSH).		•	•
v8	14.4 <u>Train Workforce on Data Handling Best Practices</u> Train workforce members on how to identify and properly store, transfer, archive, and destroy sensitive data. This also includes training workforce members on clear screen and desk best practices, such as locking their screen when they step away from their enterprise asset, erasing physical and virtual whiteboards at the end of meetings, and storing data and assets securely.	•	•	•

2.27 (L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the ability for Google Chrome to allow the Render App Container sandbox to be used while navigating to certain sites. It can be configured to either:

- Disabled (0): Disable the Renderer App Container sandbox
- Enabled (1): Enable the Renderer App Container sandbox

If the value for RendererAppContainerEnabled is not changed from the default, it will behave as if it is enabled.

Rationale:

Disabling this policy would weaken the sandbox that Google Chrome uses for the renderer process, and will have a detrimental effect on the security and stability of the browser. This policy needs to be enabled to maintain security and stability.

Impact:

This would only impact users if there is third-party software that must run inside renderer processes.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Renderer App Container
- 6. Ensure Configuration is set to Enable the Renderer App Container sandbox

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Renderer App Container
- $\mathbf{6.}$ \mathbf{Set} Configuration \mathbf{to} Enable the Renderer App Container sandbox
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#RendererAppContainerEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

2.28 (L1) Ensure 'Strict MIME type checking for worker scripts' Is Set to 'Require a JavaScript MIME type for worker scripts' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the ability for Google Chrome to upgrade to HTTPS from HTTP while navigating to certain sites. It can be configured to either:

- Disabled (0): Scripts for workers (Web Workers, Service Workers, etc.) use lax MIME type checking. Worker scripts with legacy MIME types, like text/ascii, will work.
- Enabled (1): Scripts for workers (Web Workers, Service Workers, etc.) require a JavaScript MIME type, like text/javascript. Worker scripts with legacy MIME types, like text/ascii, will be rejected.

If the value for StrictMimetypeCheckForWorkerScriptsEnabled is not changed from the default, it will behave as if it is enabled.

Rationale:

Setting this policy will require worker scripts to use more secure and strict JavaScript MIME types and ones with legacy MIME Types will be rejected.

Impact:

This should have no impact on users.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Strict MIME type checking for worker scripts
- **6. Ensure** Configuration **is set to** Require a JavaScript MIME type for worker scripts

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Strict MIME type checking for worker scripts
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Require a JavaScript MIME type for worker scripts
- 7. Select save

Default Value:

Unset (Enabled)

References:

1. https://chromeenterprise.google/policies/#StrictMimetypeCheckForWorkerScripts Enabled

2.29 Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This policy setting controls whether users may use remote debugging. This feature allows remote debugging of live content on a Windows 10 or later device from a Windows or macOS computer.

The recommended state for this setting is: Disabled.

Rationale:

Disabling remote debugging enhances security and protects applications from unauthorized access. Some attack tools can exploit this feature to extract information, or to insert malicious code.

Impact:

Users will not be able access the remote debugging feature in Google Chrome.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Allow remote debugging
- 6. Ensure Configuration is set to Do not allow use of the remote debugging

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Allow remote debugging
- 6. Set Configuration to Do not allow use of the remote debugging
- 7. Select save

Default Value:

Enabled. (Users may use remote debugging by specifying --remote-debug-port and --remote-debugging-pipe command line switches.)

Additional Information:

I copied/adjusted this rule from MS Edge, rule 1.41

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v8	7.2 Establish and Maintain a Remediation Process Establish and maintain a risk-based remediation strategy documented in a remediation process, with monthly, or more frequent, reviews.	•	•	•
v8	13.5 Manage Access Control for Remote Assets Manage access control for assets remotely connecting to enterprise resources. Determine amount of access to enterprise resources based on: up-to-date antimalware software installed, configuration compliance with the enterprise's secure configuration process, and ensuring the operating system and applications are up-to-date.		•	•

3 Privacy

This section contains recommendations that help improve user privacy. Organizations should review these settings and any potential impacts to ensure they make sense within the environment since they restrict some browser functionality.

3.1 Content settings		

3.1.1 (L2) Ensure 'Cookies' is set to 'Session Only' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

When leaving the setting _RestoreOnStartup _unset results in the use of _DefaultCookiesSetting _for all sites, if it's set. If _DefaultCookiesSetting _is not set, the user's personal setting applies.

- Disabled (0, user's personal setting applies)
- Allow all sites to set local data (1)
- Do not allow any site to set local data (2)
- Keep cookies for the duration of the session (4)

The recommended state for this setting is: Enabled with a value of Keep cookies for the duration of the session (4)

NOTE: If the *RestoreOnStartup* setting is set to restore URLs from previous sessions this setting will not be respected and cookies will be stored permanently for those sites. An example of those URLs are SSO or intranet sites.

Rationale:

Permanently stored cookies may be used for malicious intent.

Impact:

If this setting is enabled, cookies will be cleared when the session closes.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cookies
- 6. Ensure Configuration is set to Session Only

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cookies
- 6. Set Configuration to Session Only
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultCookiesSetting
- 2. https://chromeenterprise.google/policies/#RestoreOnStartup
- 3. https://chromeenterprise.google/policies/#CookiesSessionOnlyForUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

3.1.2 (L1) Ensure 'Geolocation' is set to 'Do not allow sites to detect users' geolocation' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome supports tracking a user's physical location using GPS, data about nearby Wi-Fi access points or cellular signal sites/towers (even if you're not using them), and your computer's IP.

- Disabled (0, same as 3)
- Allow sites to track the users' physical location (1)
- Do not allow any site to track the users' physical location (2)
- Ask whenever a site wants to track the users' physical location (3)

The recommended state for this setting is: Enabled with a value Do not allow any site to track the users' physical location (2)

Rationale:

From a privacy point of view it is not desirable to submit indicators regarding the location of the device, since the processing of this information cannot be determined. Furthermore, this may leak information about the network infrastructure around the device.

Impact:

If this setting is disabled, chrome will no longer send data about nearby Wi-Fi access points or cellular signal sites/towers (even if you're not using them), and your computer's IP address to Google.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Geolocation
- 6. Ensure Configuration is set to Do not allow sites to detect users' geolocation

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Geolocation
- 6. Set Configuration to Do not allow sites to detect users' geolocation
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultGeolocationSetting
- 2. https://www.w3.org/2010/api-privacy-ws/papers/privacy-ws-24.pdf

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.2 Google Cast

3.2.1 (L1) Ensure 'Cast' is set to 'Do not allow users to Cast' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Cast can send the contents of tabs, sites, or the desktop from the browser to a remote display and sound system.

The recommended state for this setting is: Disabled (0)

Rationale:

Google Cast may send the contents of tabs, sites, or the desktop from the browser to non-trusted devices on the local network segment.

Impact:

If this is disabled, Google Cast is not activated and the toolbar icon is not shown.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cast
- 6. Ensure Configuration is set to Do not allow users to Cast

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Cast
- 6. Set Configuration to Do not allow users to Cast
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#EnableMediaRouter

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

3.3 (L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting allows you to set whether a website can check to see if the user has payment methods saved.

The recommended state for this setting is: Disabled (0)

Rationale:

Saving payment information in Google Chrome could lead to sensitive data being leaked and used for non-legitimate purposes.

Impact:

Websites will be unable to query whether payment information within Google Chrome is available.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Payment methods
- **6. Ensure** Configuration **is set to** Always tell websites that no payment methods are saved

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Payment methods
- ${f 6.}$ Set Configuration ${f t0}$ Always tell websites that no payment methods are saved
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

 $1. \ \underline{https://chromeenterprise.google/policies/\#PaymentMethodQueryEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.4 (L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome allows cookies to be set by web page elements that are not from the domain in the user's address bar. Enabling this feature prevents third party cookies from being set.

The recommended state for this setting is: Enabled (1)

Rationale:

Blocking third-party cookies can help protect a user's privacy by eliminating a number of website tracking cookies.

Impact:

Enabling this setting prevents cookies from being set by web page elements that are not from the domain that is in the browser's address bar.

NOTE: Third Party Cookies and Tracking Protection are required for many business critical websites, including Microsoft 365 web apps (Office 365), SalesForce, and SAP Analytics Cloud. If these, or similar services, are needed by the organization, then this setting can be Disabled.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Third-party cookie blocking
- 6. Ensure Configuration is set to Disallow third-party cookies

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Third-party cookie blocking
- 6. Set Configuration to Disallow third-party cookies
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#BlockThirdPartyCookies

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.5 (L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome offers to sign in with your Google account and use account-related services like Chrome sync. It is possible to sign in to Google Chrome with a Google account to use services like synchronization, and can also be used for configuration and management of the browser.

- Disable browser sign-in (0)
- Enable browser sign-in (1)
- Force users to sign-in to use the browser (2)

The recommended state for this setting is: Enabled with a value of Disable browser sign-in (0)

NOTE: If an organization is a Google Workspace Enterprise customer, they will want to leave this setting enabled so that users can sign in with Google accounts.

Rationale:

Since external accounts are unmanaged and potentially used to access several private computer systems and many different websites, connecting accounts via sign-in poses a security risk for the company. It interferes with the corporate management mechanisms, as well as permits an unwanted leak of corporate information and possible mixture with private, non-company data.

Impact:

If this setting is configured, the user cannot sign in to the browser and use Google account-based services like Chrome sync.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Browser sign in settings
- 6. Ensure Configuration is set to Disabled browser sign-in

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Browser sign in settings
- 6. Set Configuration to Disabled browser sign-in
- 7. Select save

Default Value:

Unset (Same as Enabled: Enable browser sign-in, but user can change)

References:

1. https://chromeenterprise.google/policies/#BrowserSignin

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.6 (L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome provides a Cleanup feature to detect unwanted software. If this setting is <code>Enabled</code>, the results of the cleanup may be shared with Google (based on the setting of <code>SafeBrowsingExtendedReportingEnabled</code>) to assist with future unwanted software detection. These results will contain file metadata, automatically installed extensions, and registry keys.

If the setting is <code>Disabled</code>, the results of the cleanup will not be shared with Google regardless of the value of <code>SafeBrowsingExtendedReportingEnabled</code>.

The recommended state for this setting is: Disabled (0)

NOTE: This setting is not available on Windows instances that are not joined to a Microsoft® Active Directory® domain.

Rationale:

Anonymous crash/usage data can be used to identify people, companies, and information, which can be considered data ex-filtration from company systems.

Impact:

Chrome Cleanup detected unwanted software and will no longer report metadata about the scan to Google.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Chrome Cleanup
- 6. Ensure Configuration is set to Prevent Chrome Cleanup from periodical scans and disallow manual scans

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Chrome Cleanup
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{to} \; \texttt{Prevent} \; \texttt{Chrome} \; \texttt{Cleanup} \; \; \texttt{from} \; \; \texttt{periodical} \; \; \texttt{scans} \; \; \texttt{and} \; \; \\ \text{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{manual} \; \; \texttt{scans} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{disallow} \; \; \texttt{disallow} \; \; \texttt{disallow} \; \; \\ \textbf{and} \; \; \texttt{disallow} \; \; \texttt{disallow$
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#MetricsReportingEnabled
- 2. https://www.google.com/chrome/privacy/whitepaper.html
- 3. https://chromeenterprise.google/policies/#SafeBrowsingExtendedReportingEnable ed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.7 (L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can synchronize browser data using Google-hosted synchronization services. Examples of synced data include, but are not limited to, history and favorites.

The recommended state for this setting is: Enabled (1)

NOTE: if your organization allows synchronization of data with Google, then disabling this setting will synchronize saved passwords with Google.

Rationale:

Browser data shall not be synchronized into the Google Cloud.

Impact:

If this setting is enabled, browser data will no longer sync with Google across devices/platforms, allowing users to pick up where they left off.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Chrome Sync and Roaming Profiles (Chrome Browser Cloud Managed)
- 6. Ensure Configuration is set to Disallow Sync

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)
- 6. Set Configuration to Disallow Sync
- 7. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#SyncDisabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.8 (L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome offers to show suggestions for the page you were trying to reach when it is unable to connect to a web address such as 'Page Not Found'.

The recommended state for this setting is: Disabled (0)

Rationale:

Using navigation suggestions may leak information about the web site intended to be visited.

Impact:

If this setting is disabled, Chrome will no longer use a web service to help resolve navigation errors.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Alternate error pages
- 6. Ensure Configuration is set to Never use alternate error pages

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Alternate error pages
- 6. Set Configuration to Never use alternate error pages
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AlternateErrorPagesEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.9 (L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can delete the browser and download history using the clear browsing data menu.

The recommended state for this setting is: Disabled (0)

NOTE: Even when this setting is disabled, the browsing and download history aren't guaranteed to be retained. Users can edit or delete the history database files directly, and the browser itself may remove (based on expiration period) or archive any or all history items at any time

Rationale:

If users can delete websites they have visited or files they have downloaded it will be easier for them to hide evidence that they have visited unauthorized or malicious sites.

Impact:

If this setting is disabled, browsing and download history cannot be deleted by using the clear browsing data menu.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Clear browser history
- **6. Ensure** Configuration **is set to** Do not allow clearing history in settings menu

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Clear browser history
- $\textbf{6. Set} \; \texttt{Configuration} \; \textbf{to} \; \texttt{Do} \; \texttt{not} \; \texttt{allow} \; \texttt{clearing} \; \texttt{history} \; \texttt{in} \; \texttt{settings} \; \texttt{menu}$
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AllowDeletingBrowserHistory

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.10 (L1) Ensure 'Network prediction' Is Set to 'Do not predict network actions' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome comes with the network prediction feature which provides DNS prefetching, TCP and SSL preconnection, and prerendering of web pages.

- Predict network actions on any network connection (0) or (1)
- Do not predict network actions on any network connection (2)

The recommended state for this setting is: Enabled with a value of Do not predict network actions on any network connection (2)

Rationale:

Opening connections to resources that may not be used could allow unneeded connections increasing attack surface and in some cases could lead to opening connections to resources which the user did not intend to utilize.

Impact:

Users will not be presented with web page predictions.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Network prediction
- 6. Ensure Configuration is set to Do not predict network actions

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Network prediction
- 6. Set Configuration to Do not predict network actions
- 7. Select save

Default Value:

Unset (Same as Enabled with a value of Predict network actions on any network connection)

References:

1. https://chromeenterprise.google/policies/#NetworkPredictionOptions

Controls Version	Control	IG 1	IG 2	2 IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

3.11 (L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can use Google web service to help resolve spelling errors.

The recommended state for this setting is: Disabled (0)

Rationale:

Information typed in may be leaked to Google's spellcheck web service.

Impact:

After disabling this feature, Chrome no longer sends the entire contents of text fields to Google as you type them. Spell checking can still be performed using a downloaded dictionary. This setting only controls the usage of the online service.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Spell check service
- 6. Ensure Configuration is set to Disable the spell checking web service

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Spell check service
- 6. Set Configuration to Disable the spell checking web service
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

 ${\bf 1.} \ \ \underline{https://chromeenterprise.google/policies/\#SpellCheckServiceEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.12 (L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls anonymous reporting of usage and crash-related data about Google Chrome to Google.

The recommended state for this setting is: Disabled (0)

NOTE: This setting is not available on Windows instances that are not joined to a Microsoft® Active Directory® domain.

Rationale:

Anonymous crash/usage data can be used to identify people, companies and information, which can be considered data ex-filtration from company systems.

Impact:

If this setting is disabled, this information is not sent to Google.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Metrics reporting
- $\hbox{\bf 6. Ensure Configuration is set to $\tt Do$ not send anonymous reports of usage and $\tt crash-related data to Google }$

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Metrics reporting
- $\pmb{6.}$ $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Do not send anonymous reports of usage and crash-related data to Google
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#MetricsReportingEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.13 (L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome can be adjusted to allow downloads without Safe Browsing checks when the requested file is from a trusted source. Trusted sources can be defined using recommendation 'Configure the list of domains on which Safe Browsing will not trigger warnings'.

The recommended state for this setting is: Disabled (0)

NOTE: On Microsoft® Windows®, this functionality is only available on instances that are joined to a Microsoft® Active Directory® domain, running on Windows 10 Pro, or enrolled in Chrome Browser Cloud Management.

Rationale:

Information requested from trusted sources shall not be sent to Google's safe browsing servers.

Impact:

If this setting is disabled, files downloaded from intranet resources will not be checked by Google Services.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Safe Browsing for trusted sources
- Ensure Configuration is set to Perform Safe Browsing checks on all downloaded files

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Safe Browsing for trusted sources
- 6. Set Configuration to Perform Safe Browsing checks on all downloaded files
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#SafeBrowsingForTrustedSourcesEnable ed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.14 (L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Google Chrome offers suggestions in Google Chrome's omnibox while a user is typing.

The recommended state for this setting is: Disabled (0)

Rationale:

Using search suggestions may leak information as soon as it is typed/pasted into the omnibox, e.g. passwords, internal webservices, folder structures, etc.

Impact:

The user has to send the search request actively by using the search button or hitting "Enter".

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Search suggest
- 6. Ensure Configuration is set to Never allow users to use Search Suggest

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Search suggest
- 6. Set Configuration to Never allow users to use Search Suggest
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

 $1. \ \underline{https://chromeenterprise.google/policies/\#SearchSuggestEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.15 (L2) Ensure 'Google Translate' is set to 'Never offer translation' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting enables Google translation services on Google Chrome.

The recommended state for this setting is: Disabled (0)

Rationale:

Content of internal web pages may be leaked to Google's translation service.

Impact:

After disabling this feature, the contents of a web page are no longer sent to Google for translation.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Google Translate
- 6. Ensure Configuration is set to Never offer translation

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Google Translate
- 6. Set Configuration to Never offer translation
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#TranslateEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

3.16 (L1) Ensure 'Enable URL-keyed anonymized data collection' is set to 'Data collection is never active' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Google Chrome offers the feature URL-keyed anonymized data collection. This sends URLs of pages the user visits to Google to optimize its services.

The recommended state for this setting is: Disabled (0)

Rationale:

Anonymized data collection shall be disabled, since it is unclear which information exactly is sent to Google.

Impact:

Anonymized data will not be sent to Google to help optimize its services

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. **Under** User & browser settings, **Select** Enable URL-keyed anonymized data collection
- 6. Ensure Configuration is set to Data collection is never active

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, **Select** Enable URL-keyed anonymized data collection
- 6. Set Configuration to Data collection is never active
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#UrlKeyedAnonymizedDataCollectionEn abled

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	3.5 <u>Deploy Automated Software Patch Management Tools</u> Deploy automated software update tools in order to ensure that third-party software on all systems is running the most recent security updates provided by the software vendor.	•	•	•

4 Data Loss Prevention

This section contains recommendations to help prevent and protect against unwanted loss of data. Organizations should review these settings and any potential impacts to ensure they make sense within the environment, since they restrict some browser functionality.

I.1 Allow or deny screen capture					

4.1.1 (L2) Ensure 'Screen video capture' is set to 'Do not allow sites to prompt the user to share a video stream of their screen' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls whether Google Chrome can use screen-share APIs including web-based online meetings, video, or screen sharing.

The recommended state for this setting is: Disabled (0)

NOTE: This setting is not considered (and a site will be allowed to use screen-share APIs) if the site matches an origin pattern in any of the following other settings: ScreenCaptureAllowedByOrigins, WindowCaptureAllowedByOrigins, TabCaptureAllowedByOrigins, SameOriginTabCaptureAllowedByOrigins.

Rationale:

Allowing screen-share APIs within Google Chrome could potentially allow for sensitive data to be shared via screen captures.

Impact:

Users will be unable to utilize APIs which support web-based meetings (video conferencing screen sharing), video, and screen capture. This could potentially cause disruption to users who may have utilized these abilities in the past.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Screen video capture
- **6. Ensure** Configuration **is set to** Do not allow sites to prompt the user to share a video stream of their screen

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Screen video capture
- $\pmb{6}$. \pmb{Set} Configuration \pmb{to} Do not allow sites to prompt the user to share a video stream of their screen
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ScreenCaptureAllowed

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

4.2 Content settings					

4.2.1 (L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls website access and use of the system serial port.

- Do not allow any site to request access to serial ports via the Serial API (2)
- Allow sites to ask the user to grant access to a serial port (3)

The recommended state for this setting is: Do not allow any site to request access to serial ports via the Serial API (2)

NOTE: If more granular control is needed (per website) then this setting can be used in combination with the *SerialAllowAllPortsForUrls*, *SerialAskForUrls* and *SerialBlockedForUrls* settings. For example, *SerialAllowAllPortsForUrls* can be used to allow serial port access to specific sites. Please see the references below for more information.

Rationale:

Preventing access to system serial ports may prevent malicious sites from using these ports and accessing the devices attached.

Impact:

This setting would also prevent legitimate sites from accessing it as well.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Serial API
- **6. Ensure** Configuration **is set to** Do not allow any site to request access to serial ports via the Web Serial API

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Web Serial API
- ${f 6.}$ Set Configuration ${f t0}$ Do not allow any site to request access to serial ports via the Web Serial API
- 7. Select save

Default Value:

Unset (Same as Enabled with Allow sites to ask the user to grant access to a serial port, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultSerialGuardSetting
- 2. https://chromeenterprise.google/policies/#SerialAskForUrls
- 3. https://chromeenterprise.google/policies/#SerialBlockedForUrls
- 4. https://chromeenterprise.google/policies/#SerialAllowAllPortsForUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

4.2.2 (L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls website access and use of system sensors such as motion and light.

- Allow sites to access sensors (1)
- Do not allow any site to access sensors (2)

The recommended state for this setting is: Do not allow any site to access sensors (2)

The recommended state for this setting is: Enabled with a value of Do not allow any site to access sensors

NOTE: If more granular control is needed (per website) then this setting can be used in combination with the *SensorsAllowedForUrls* and *SensorsBlockedForUrls* settings. For example, *SensorsAllowedForUrls* can be used to allow sensor access to specific sites. Please see the references below for more information.

Rationale:

Preventing access to system sensors may prevent malicious sites from using these sensors for user profiling (OpSec).

Impact:

This setting would also prevent legitimate sites from accessing it as well.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Sensors
- 6. Ensure Configuration is set to Do not allow any site to access sensors

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Sensors
- 6. Set Configuration to Do not allow any site to access sensors
- 7. Select save

Default Value:

Unset (Same as Enabled with a value of Allow sites to access sensors, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#DefaultSensorsSetting
- 2. https://chromeenterprise.google/policies/#SensorsAllowedForUrls
- 3. https://chromeenterprise.google/policies/#SensorsBlockedForUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.8 <u>Uninstall or Disable Unnecessary Services on Enterprise Assets and Software</u> Uninstall or disable unnecessary services on enterprise assets and software, such as an unused file sharing service, web application module, or service function.		•	•
v7	9.2 Ensure Only Approved Ports, Protocols and Services Are Running Ensure that only network ports, protocols, and services listening on a system with validated business needs, are running on each system.		•	•

4.2.3 (L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the defaults for clipboard permission access from sites. It can be configured to either:

- Disabled (2): Does not allow access to the clipboard site permission by any site
- Enabled (3): Sites ask the user to allow access to the clipboard site permission

If the value for <code>DefaultClipboardSetting</code> is not changed from the default, it will behave as if it is enabled. <code>ClipboardAllowedForUrls</code> or <code>ClipboardBlockedForUrls</code> will override this setting for any site that matches the configured URL patterns.

With the setting disabled, organizations will need to set ClipboardAllowedForUrls for any URLs they want to make exempt.

Rationale:

The clipboard stores data, text, and images that are shared between all applications. An organization would disable clipboard access to restrict sites from reading the contents of the clipboard when visiting.

Impact:

Not allowing sites to have access to the clipboard permission can cause issues with formatting or access to needed images on the clipboard.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Clipboard
- **6. Ensure** Configuration **is Set to** Do not allow any site to use the clipboard site permission

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Clipboard
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{t0}}$ Do not allow any site to use the clipboard site permission
- 7. Select save

Default Value:

Allow clipboard permission access

References:

1. https://chromeenterprise.google/policies/#DefaultClipboardSetting

Additional Information:

If your organization requires a set of sites permitted to access the clipboard, configure them via this setting in the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Clipboard
- **6. Set URLs required by your organization in** Allow these sites to access the clipboard
- 7. Select save

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.3 (L2) Ensure 'File selection dialogs' is set to 'Block file selection dialogs' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting allows access to local files by allowing file selection dialogs in Google Chrome.

The recommended state for this setting is: Disabled (0)

Rationale:

Allowing users to import favorites, upload files, and save links could pose potential security risks by allowing data to be uploaded to external sites or by downloading malicious files. By not allowing the file selection dialog, the end-user will not be prompted for uploads/downloads, preventing data exfiltration and possible system infection by malware.

Impact:

If you disable this setting, users will no longer be prompted when performing actions which would trigger a file selection dialog. Instead, the file selection dialog box assumes the user clicked "Cancel". Being as this is not the default behavior, impact to the user will be noticeable, and the user will not be able to upload and download files.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select File selection dialogs
- 6. Ensure Configuration is set to Block file selection dialogs

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select File selection dialogs
- 6. Set Configuration to Block file selection dialogs
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AllowFileSelectionDialogs

Controls Version	Control	IG 1	IG 2	IG 3
v8	2.7 <u>Allowlist Authorized Scripts</u> Use technical controls, such as digital signatures and version control, to ensure that only authorized scripts, such as specific .ps1, .py, etc., files, are allowed to execute. Block unauthorized scripts from executing. Reassess bi-annually, or more frequently.			•
v7	2.5 Integrate Software and Hardware Asset Inventories The software inventory system should be tied into the hardware asset inventory so all devices and associated software are tracked from a single location.			•

4.4 (L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting allows administrators to set whether the end-user is prompted for access to audio capture devices.

- Disabled (0): Turns off prompts and audio capture will only work for URLs configured in the *AudioCaptureAllowedUrls* list.
- Enabled (1): With the exception of URLs set in the *AudioCaptureAllowedUrls* list, users get prompted for audio capture access.

NOTE: The setting affects all audio input (not just the built-in microphone).

The recommended state for this setting is: Disabled

Rationale:

The end-user having the ability to allow or deny audio capture for websites in Google Chrome could open an organization up to a malicious site that may capture proprietary information through the browser. By limiting or disallowing audio capture, it removes the end-user's discretion, leaving it up to the organization which sites are allowed to use this ability.

Impact:

If you disable this setting, users will not be prompted for audio devices when using websites which may need this access, such as a web-based conferencing system. If there are sites which access will be allowed, configuration of the *AudioCaptureAllowedUrls* setting will be necessary.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Audio input (microphone)
- 6. Ensure Configuration is set to Disable audio input

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Audio input (microphone)
- 6. Set Configuration to Disable audio input
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AudioCaptureAllowed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.5 (L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting allows administrators to set whether the end-user is prompted for access to video capture devices.

- Disabled (0): Turns off prompts and video capture will only work for URLs configured in the *VideoCaptureAllowedUrls* list.
- Enabled (1): With the exception of URLs set in the *VideoCaptureAllowedUrls* list, users get prompted for video capture access.

NOTE: The setting affects all video input (not just the built-in camera).

The recommended state for this setting is: Disabled (0)

Rationale:

The end-user having the ability to allow or deny video capture for websites in Google Chrome could open an organization up to a malicious site that may capture proprietary information through the browser. By limiting or disallowing video capture, it removes the end-user's discretion, leaving it up to the organization which sites are allowed to use this ability.

Impact:

If you disable this setting, users will not be prompted for video devices when using websites which may need this access, such as a web-based conferencing system. If there are sites which access will be allowed, configuration of the *VideoCaptureAllowedUrls* setting will be necessary.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Video input (camera)
- $\pmb{6}$. **Ensure** Configuration is set to Disable camera input for websites and apps

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Video input (camera)
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Configuration $\pmb{\mathsf{to}}$ Disable camera input for websites and apps
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#VideoCaptureAllowed
- 2. https://chromeenterprise.google/policies/#VideoCaptureAllowedUrls

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.6 (L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls whether users are able to utilize the Chrome feedback feature to send feedback, suggestions, and surveys to Google, as well as issue reports.

The recommended state for this setting is: Disabled (0)

Rationale:

Data should not be shared with third-party vendors in an enterprise managed environment.

Impact:

Users will not be able to send feedback to Google.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Allow user feedback
- 6. Ensure Configuration is set to Do not allow user feedback

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Allow user feedback
- 6. Set Configuration to Do not allow user feedback
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#UserFeedbackAllowed

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.7 (L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This controls the mode of the DNS-over-HTTPS resolver. Please note that this setting will only set the default mode for each query. The mode may be overridden for special types of queries, such as requests to resolve a DNS-over-HTTPS server hostname.

- Disable DNS-over-HTTPS (Off)
- Enable DNS-over-HTTPS with insecure fallback (automatic) Enable DNS-over-HTTPS queries first if a DNS-over-HTTPS server is available and may fallback to sending insecure queries on error.
- Enable DNS-over-HTTPS without insecure fallback (secure) Only send DNS-over-HTTPS queries and will fail to resolve on error.

The recommended state for this setting is: Enabled with a value of Enable DNS-over-HTTPS without insecure fallback (Secure)

Note: When enabling this policy, it is recommended to also configure the DnsOverHttpsTemplates policy so that the URI templates are set. You can find out more information on the DnsOverHttpsTemplates enterprise policy site.

Rationale:

DNS over HTTPS (DOH) has a couple primary benefits:

- 1. Encrypting DNS name resolution traffic helps to hide your online activities, since DoH hides the name resolution requests from the ISP and from anyone listening on intermediary networks.
- 2. DoH also helps to prevent DNS spoofing and man-in-the-middle (MitM) attacks.

Impact:

Not all DNS providers support DOH, so choice is limited. Also, Enterprises sometimes monitor DNS requests to block access to malicious or inappropriate sites. DNS monitoring can also sometimes be used to detect malware attempting to "phone home." Because DoH encrypts name resolution requests, it can create a security monitoring blind spot.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select DNS over HTTPS
- **6. Ensure** Configuration **is set to** Enable DNS-over-HTTPS without insecure fallback

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. **Select** Settings
- 5. Under User & browser settings, select DNS over HTTPS
- 6. Set Configuration to Enable DNS-over-HTTPS without insecure fallback
- 7. Select save

Default Value:

Unset (Same as Enable DNS-over-HTTPS with insecure fallback (automatic). If any policy is set, either through being domain-joined or active policy with cloud management (or profile lists), then it sometimes reverts to Disable DNS-over-HTTPS and users can't change it.

References:

1. https://chromeenterprise.google/policies/#DnsOverHttpsMode

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.10 Encrypt Sensitive Data in Transit Encrypt sensitive data in transit. Example implementations can include: Transport Layer Security (TLS) and Open Secure Shell (OpenSSH).		•	•
v8	14.4 <u>Train Workforce on Data Handling Best Practices</u> Train workforce members on how to identify and properly store, transfer, archive, and destroy sensitive data. This also includes training workforce members on clear screen and desk best practices, such as locking their screen when they step away from their enterprise asset, erasing physical and virtual whiteboards at the end of meetings, and storing data and assets securely.	•	•	•

4.8 (L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Chrome allows users to auto-complete web forms with saved information such as address or phone number. Disabling this feature will prompt a user to enter all information manually.

The recommended state for this setting is: Disabled (0)

Rationale:

If an attacker gains access to a user's machine where the user has stored address AutoFill data, information could be harvested.

Impact:

If this setting is disabled, AutoFill will be inaccessible to users.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Address form Autofill
- 6. Ensure Configuration is set to Never Autofill address forms

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, Select Address form Autofill
- 6. Set Configuration to Never Autofill address forms
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AutofillAddressEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.9 (L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

Chrome allows users to auto-complete web forms with saved credit card information. Disabling this feature will prompt a user to enter all information manually.

The recommended state for this setting is: Disabled (0)

Rationale:

If an attacker gains access to a user's machine where the user has stored credit card AutoFill data, information could be harvested.

Impact:

If this setting is disabled, credit card AutoFill will be inaccessible to users.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Credit card form Autofill
- 6. Ensure Configuration is set to Never Autofill credit card forms

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Credit card form Autofill
- 6. Set Configuration to Never Autofill credit card forms
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#AutofillCreditCardEnabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.10 (L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls if saved passwords from the default browser can be imported (on first run and later manually).

The recommended state for this setting is: Disabled (0)

Rationale:

In Chrome, passwords can be stored in plain-text and revealed by clicking the "show" button next to the password field by going to chrome://settings/passwords/.

Impact:

If this setting is disabled, saved passwords from other browsers are not imported.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import saved passwords
- 6. Ensure Configuration is set to Disable imports of saved passwords

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Import saved passwords
- 6. Set Configuration to Disable imports of saved passwords
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#ImportSavedPasswords

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

4.11 (L1) Ensure 'Chrome Sync (ChromeOS)' is set to 'Allow Chrome Sync' and Exclude 'Passwords' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting allows you to specify data types that will be limited/excluded from uploading data to the Google Chrome synchronization service.

The recommended state for this setting is: Enabled with the following text value passwords (Case Sensitive)

NOTE: Other settings in addition to passwords can be included based on organizational needs.

Rationale:

Storing and sharing information could potentially expose sensitive information, including but not limited to user passwords and login information. Allowing this synchronization could also potentially allow an end user to pull corporate data that was synchronized into the cloud to a personal machine.

Impact:

Password data will not be synchronized with the Google Chrome synchronization service.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Chrome Sync (ChromeOS)
- 6. Ensure Configuration is set to Allow Chrome Sync
- 7. Ensure List of types that should be excluded from synchronization is set to Passwords

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Chrome Sync (ChromeOS)
- 6. Set Configuration to Allow Chrome Sync
- 7. Set List of types that should be excluded from synchronization to Passwords
- 8. Select save

Default Value:

Unset (Same as Disabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#SyncTypesListDisabled

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

4.12 (L2) Ensure 'Screen video capture' is set to 'Do not allow sites to prompt the user to share a video stream of their screen' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

If enabled or not configured (default), a Web page can use screen-share APIs (e.g., getDisplayMedia() or the Desktop Capture extension API) to prompt the user to select a tab, window, or desktop to capture.

Rationale:

The end-user having the ability to allow or deny screen capture for websites in Google Chrome could open an organization up to a malicious site that may capture proprietary information through the browser. By limiting or disallowing screen capture, it removes the end-user's discretion, leaving it up to the organization which sites are allowed to use this ability.

Impact:

When this policy is disabled, any calls to screen-share APIs will fail with an error. This policy is not considered (and a site will be allowed to use screen-share APIs) if the site matches an origin pattern in any of the following policies: ScreenCaptureAllowedByOrigins, WindowCaptureAllowedByOrigins,

TabCaptureAllowedByOrigins, SameOriginTabCaptureAllowedByOrigins.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Screen video capture
- $\pmb{6}$. **Ensure** Configuration is \pmb{set} to $\pmb{0}$ Do not allow sites to prompt the user to share a video stream of their screen

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Screen video capture
- ${f 6.}$ Set Configuration ${f t0}$ Do not allow sites to prompt the user to share a video stream of their screen
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

- 1. https://chromeenterprise.google/policies/#ScreenCaptureAllowed
- 2. https://chromeenterprise.google/policies/#SameOriginTabCaptureAllowedByOrigins
- 3. https://chromeenterprise.google/policies/#ScreenCaptureAllowedByOrigins
- 4. https://chromeenterprise.google/policies/#TabCaptureAllowedByOrigins
- 5. https://chromeenterprise.google/policies/#WindowCaptureAllowedByOrigins

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

5 Forensics (Post Incident)

This section contains recommendations to help in post-incident forensics and analysis. Organizations should review these settings and any potential impacts to ensure they make sense within their environment.

5.1 (L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

This setting controls whether a user may utilize guest profiles in Google Chrome.

The recommended state for this setting is: Disabled (0)

Rationale:

In a guest profile, the browser doesn't import browsing data from existing profiles, and it deletes browsing data when all guest profiles are closed.

Deleting browser data will delete information that may be important for a computer investigation, and investigators such as Computer Forensics Analysts may not be able to retrieve pertinent information to the investigation.

Impact:

Users will not be able to initiate Guest mode for Google Chrome.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Browser guest mode
- 6. Ensure Configuration is set to Prevent guest browser logins

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. **Select** Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under user & browser settings, select Browser guest mode
- 6. Set Configuration to Prevent guest browser logins
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

 $1. \ \underline{https://chromeenterprise.google/policies/\#BrowserGuestModeEnabled}$

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.2 <u>Use DNS Filtering Services</u> Use DNS filtering services on all enterprise assets to block access to known malicious domains.	•	•	•
v7	4.8 Log and Alert on Changes to Administrative Group Membership Configure systems to issue a log entry and alert when an account is added to or removed from any group assigned administrative privileges.		•	•

5.2 (L2) Ensure 'Incognito mode' is set to 'Disallow incognito mode' (Automated)

Profile Applicability:

• Level 2 (L2) - High Security/Sensitive Data Environment (limited functionality)

Description:

Specifies whether the user may open pages in Incognito mode in Google Chrome. The possible values are:

- Incognito mode available (0 Same as Disabled))
- Incognito mode disabled (1)
- Incognito mode forced (2)

The recommended state for this setting is: Enabled: Incognito mode disabled (1)

Rationale:

Incognito mode in Chrome gives you the choice to browse the internet without your activity being saved to your browser or device.

Allowing users to use the browser without any information being saved can hide evidence of malicious behaviors. This information may be important for a computer investigation, and investigators such as Computer Forensics Analysts may not be able to retrieve pertinent information to the investigation.

Impact:

Users will not be able to initiate Incognito mode for Google Chrome.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Incognito mode
- 6. Ensure Configuration is set to Disallow incognito mode

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Incognito mode
- 6. Set Configuration to Disallow incognito mode
- 7. Select save

Default Value:

Unset (Same as Enabled, but user can change)

References:

1. https://chromeenterprise.google/policies/#IncognitoModeAvailability

Controls Version	Control	IG 1	IG 2	IG 3
v8	0.0 Explicitly Not Mapped Explicitly Not Mapped			
v7	0.0 Explicitly Not Mapped Explicitly Not Mapped			

5.3 (L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664' (Automated)

Profile Applicability:

• Level 1 (L1) - Corporate/Enterprise Environment (general use)

Description:

This setting controls the size of the cache, in bytes, used to store files on the disk.

The recommended state for this setting is: Enabled: 250609664 or greater

NOTE The value specified in this setting isn't a hard boundary but rather a suggestion to the caching system; any value below a few megabytes is too small and will be rounded up to a reasonable minimum.

Rationale:

Having enough disk space for browser cache is important for a computer investigation and for investigators such as Computer Forensics Analysts to be able to retrieve pertinent information to the investigation.

Impact:

Browser cache will take up to 250MB in disk space.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Disk cache size
- 6. Ensure Disk cache size in bytes is set to 250609664

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Devices
- 3. Select Chrome
- 4. Select Settings
- 5. Under User & browser settings, select Disk cache size
- 6. Set Disk cache size in bytes to 250609664
- 7. Select save

Default Value:

Unset (Same as Enabled with a system managed smaller default size, but the user can change)

References:

1. https://chromeenterprise.google/policies/#DiskCacheSize

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.5 <u>Securely Dispose of Data</u> Securely dispose of data as outlined in the enterprise's data management process. Ensure the disposal process and method are commensurate with the data sensitivity.	•	•	•
v7	7.4 Maintain and Enforce Network-Based URL Filters Enforce network-based URL filters that limit a system's ability to connect to websites not approved by the organization. This filtering shall be enforced for each of the organization's systems, whether they are physically at an organization's facilities or not.		•	•

Appendix: Summary Table

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
1	Enforced Defaults		
1.1	HTTP authentication		
1.1.1	(L1) Ensure 'Cross-origin authentication' is set to 'Block cross-origin authentication' (Automated)		
1.2	Safe Browsing settings		
1.2.1	(L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains' (Automated)		
1.2.2	(L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups' (Manual)		
1.3	(L1) Ensure 'Cast' is set to 'Do not allow users to cast' (Automated)		
1.4	(L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp' (Automated)		
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process' (Automated)		
1.6	(L1) Ensure 'Download location prompt' is set to 'Ask the user where to save the file before downloading' (Automated)		
1.7	(L1) Ensure 'Background mode' is set to 'Disable background mode' (Automated)		
1.8	(L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content' (Automated)		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations' (Manual)		
1.10	(L1) Ensure 'Certificate transparency legacy CA allowlist' is Not Set (Automated)		
1.11	(L1) Ensure 'Certificate transparency CA allowlist' is Not Set (Automated)		
1.12	(L1) Ensure 'Allowed certificate transparency URLs' is Not Set (Automated)		
1.13	(L1) Ensure 'Browser history' is set to 'Always save browser history' (Automated)		
1.14	(L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks ' (Automated)		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components' (Automated)		
1.16	(L1) Ensure 'Enable globally scoped HTTP authentication cache' is set to 'Disabled' (Automated)		
1.17	(L1) Ensure 'Online revocation checks' is set to 'Do not perform online OCSP/CRL checks' (Automated)		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used' (Automated)		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome' (Automated)		
1.20	(L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API' (Automated)		
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data' (Automated)		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data' (Automated)		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage' (Automated)		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines' (Automated)		
1.25	(L1) Ensure 'HSTS policy bypass list' is Not Set (Automated)		
1.26	(L1) Ensure 'Override insecure origin restrictions' is Not Set (Automated)		
1.27	(L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set (Automated)		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system' (Automated)		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set (Automated)		
2	Attack Surface Reduction		
2.1	Content settings		
2.1.1	(L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content' (Automated)		
2.1.2	(L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API' (Automated)		
2.1.3	(L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API' (Automated)		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
2.1.4	(L2) Ensure 'Notifications' is set to 'Do not allow any site to show desktop notifications' (Automated)		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set (Automated)		
2.2	Extensions		
2.2.1	(L1) Ensure 'External extensions' is set to 'Block external extensions from being installed' (Automated)		
2.2.2	(L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme' (Automated)		
2.2.3	(L1) Ensure 'App and extension install sources' Is Not Set (Automated)		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled' (Automated)		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured (Manual)		
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen' (Automated)		
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions' (Automated)		
2.3	HTTP authentication	1	
2.3.1	(L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate' (Automated)		
2.4	Native Messaging		

	CIS Benchmark Recommendation	_	et ectly
		Yes	No
2.4.1	(L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*' (Automated)		
2.5	Password manager		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured (Manual)		
2.6	Remote access (Chrome Remote Desktop)		
2.6.1	(L1) Ensure 'Remote support connections' is set to 'Prevent remote support connections' (Manual)		
2.6.2	(L1) Ensure 'Remote access hosts' is set with a domain defined in 'Remote access host domain' (Manual)		
2.6.3	(L1) Ensure 'Firewall traversal' is set to 'Disable firewall traversal' (Automated)		
2.6.4	(L1) Ensure 'Firewall traversal' is set to 'Disable the use of relay servers' (Automated)		
2.7	First-Party Sets Settings		
2.7.1	(L1) Ensure 'First-Party Sets' Is Set to 'Disable First-Party Sets for all affected users' (Manual)		
2.8	Microsoft Active Directory Management Settings		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication' (Manual)		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads' (Automated)		
2.10	(L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings' (Automated)		
2.11	(L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning' (Automated)		

	CIS Benchmark Recommendation		et ectly
		Yes	No
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below' (Automated)		
2.13	(L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries' (Automated)		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch' (Automated)		
2.15	(L1) Ensure 'Proxy mode' is Not Set to 'Always auto detect the proxy' (Automated)		
2.16	(L2) Ensure 'Online revocation checks' is set to 'Perform online OCSP/CRL checks' (Automated)		
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)' (Automated)		
2.18	(L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates' (Automated)		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google' (Automated)		
2.20	(L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment' (Automated)		
2.21	(L2) Ensure 'Enforce local anchor constraints' Is 'Enforce constraints in locally added trust anchors' (Automated)		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set (Automated)		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages' (Automated)		

	CIS Benchmark Recommendation		et ectly
		Yes	No
2.24	(L1) Ensure 'Http Allowlist' Is Properly Configured (Manual)		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades' (Automated)		
2.26	(L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes' (Automated)		
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox' (Automated)		
2.28	(L1) Ensure 'Strict MIME type checking for worker scripts' Is Set to 'Require a JavaScript MIME type for worker scripts' (Automated)		
2.29	Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging' (Automated)		
3	Privacy		
3.1	Content settings		
3.1.1	(L2) Ensure 'Cookies' is set to 'Session Only' (Automated)		
3.1.2	(L1) Ensure 'Geolocation' is set to 'Do not allow sites to detect users' geolocation' (Automated)		
3.2	Google Cast		
3.2.1	(L1) Ensure 'Cast' is set to 'Do not allow users to Cast' (Automated)		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved' (Automated)		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies' (Automated)		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in' (Automated)		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans' (Automated)		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync' (Automated)		
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages' (Automated)		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu' (Automated)		
3.10	(L1) Ensure 'Network prediction' Is Set to 'Do not predict network actions' (Automated)		
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service' (Automated)		
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google' (Automated)		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files' (Automated)		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest' (Automated)		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation' (Automated)		
3.16	(L1) Ensure 'Enable URL-keyed anonymized data collection' is set to 'Data collection is never active' (Automated)		
4	Data Loss Prevention		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
4.1	Allow or deny screen capture		
4.1.1	(L2) Ensure 'Screen video capture' is set to 'Do not allow sites to prompt the user to share a video stream of their screen' (Automated)		
4.2	Content settings		
4.2.1	(L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API' (Automated)		
4.2.2	(L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors' (Automated)		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission' (Automated)		
4.3	(L2) Ensure 'File selection dialogs' is set to 'Block file selection dialogs' (Automated)		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input' (Automated)		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps' (Automated)		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback' (Automated)		
4.7	(L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback' (Automated)		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms' (Automated)		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms' (Automated)		
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords' (Automated)		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
4.11	(L1) Ensure 'Chrome Sync (ChromeOS)' is set to 'Allow Chrome Sync' and Exclude 'Passwords' (Automated)		
4.12	(L2) Ensure 'Screen video capture' is set to 'Do not allow sites to prompt the user to share a video stream of their screen' (Automated)		
5	Forensics (Post Incident)		
5.1	(L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins' (Automated)		
5.2	(L2) Ensure 'Incognito mode' is set to 'Disallow incognito mode' (Automated)		
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664' (Automated)		

Appendix: CIS Controls v7 IG 1 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.13	(L1) Ensure 'Browser history' is set to 'Always save browser history'		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
3.16	(L1) Ensure 'Enable URL-keyed anonymized data collection' is set to 'Data collection is never active'		

Appendix: CIS Controls v7 IG 2 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.2.1	(L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains'		
1.2.2	(L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups'		
1.3	(L1) Ensure 'Cast' is set to 'Do not allow users to cast'		
1.4	(L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp'		
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.7	(L1) Ensure 'Background mode' is set to 'Disable background mode'		
1.8	(L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.13	(L1) Ensure 'Browser history' is set to 'Always save browser history'		
1.14	(L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks '		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.20	(L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API'		

	Recommendation	Se Corre	
		Yes	No
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data'		
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data'		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage'		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines'		
1.25	(L1) Ensure 'HSTS policy bypass list' is Not Set		
1.27	(L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set		
2.1.1	(L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content'		
2.1.2	(L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API'		
2.1.3	(L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API'		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set		
2.2.1	(L1) Ensure 'External extensions' is set to 'Block external extensions from being installed'		
2.2.2	(L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme'		
2.2.3	(L1) Ensure 'App and extension install sources' Is Not Set		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled'		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured		

	Recommendation	Se Corre	
		Yes	No
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.3.1	(L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate'		
2.4.1	(L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*'		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.10	(L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings'		
2.11	(L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.13	(L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages'		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades'		

	Recommendation	Se Corre	
		Yes	No
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox'		
3.1.2	(L1) Ensure 'Geolocation' is set to 'Do not allow sites to detect users' geolocation'		
3.2.1	(L1) Ensure 'Cast' is set to 'Do not allow users to Cast'		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved'		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies'		
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in'		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans'		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync'		
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages'		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu'		
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service'		
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google'		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files'		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest'		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation'		
3.16	(L1) Ensure 'Enable URL-keyed anonymized data collection' is set to 'Data collection is never active'		
4.2.1	(L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API'		

Recommendation		Se Corre	
		Yes	No
4.2.2	(L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors'		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission'		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input'		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps'		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback'		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms'		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms'		
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords'		
5.1	(L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins'		
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664'		

Appendix: CIS Controls v7 IG 3 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.2.1	(L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains'		
1.2.2	(L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups'		
1.3	(L1) Ensure 'Cast' is set to 'Do not allow users to cast'		
1.4	(L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp'		
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.7	(L1) Ensure 'Background mode' is set to 'Disable background mode'		
1.8	(L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.13	(L1) Ensure 'Browser history' is set to 'Always save browser history'		
1.14	(L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks '		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.20	(L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API'		

	Recommendation	Se Corre	
		Yes	No
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data'		
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data'		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage'		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines'		
1.25	(L1) Ensure 'HSTS policy bypass list' is Not Set		
1.27	(L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set		
2.1.1	(L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content'		
2.1.2	(L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API'		
2.1.3	(L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API'		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set		
2.2.1	(L1) Ensure 'External extensions' is set to 'Block external extensions from being installed'		
2.2.2	(L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme'		
2.2.3	(L1) Ensure 'App and extension install sources' Is Not Set		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled'		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured		

	Recommendation	Se Corre	
		Yes	No
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.3.1	(L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate'		
2.4.1	(L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*'		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured		
2.6.1	(L1) Ensure 'Remote support connections' is set to 'Prevent remote support connections'		
2.6.2	(L1) Ensure 'Remote access hosts' is set with a domain defined in 'Remote access host domain'		
2.6.3	(L1) Ensure 'Firewall traversal' is set to 'Disable firewall traversal'		
2.6.4	(L1) Ensure 'Firewall traversal' is set to 'Disable the use of relay servers'		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.10	(L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings'		
2.11	(L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.13	(L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.15	(L1) Ensure 'Proxy mode' is Not Set to 'Always auto detect the proxy'		

	Recommendation	Se Corre	
		Yes	No
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages'		
2.24	(L1) Ensure 'Http Allowlist' Is Properly Configured		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades'		
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox'		
3.1.2	(L1) Ensure 'Geolocation' is set to 'Do not allow sites to detect users' geolocation'		
3.2.1	(L1) Ensure 'Cast' is set to 'Do not allow users to Cast'		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved'		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies'		
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in'		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans'		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync'		
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages'		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu'		
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service'		

	Recommendation	Se Corre	
		Yes	No
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google'		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files'		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest'		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation'		
3.16	(L1) Ensure 'Enable URL-keyed anonymized data collection' is set to 'Data collection is never active'		
4.2.1	(L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API'		
4.2.2	(L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors'		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission'		
4.3	(L2) Ensure 'File selection dialogs' is set to 'Block file selection dialogs'		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input'		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps'		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback'		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms'		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms'		
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords'		
5.1	(L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins'		
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664'		

Appendix: CIS Controls v7 Unmapped Recommendations

Recommendation		Set Correctl	
		Yes	No
2.18	(L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates'		
2.20	(L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment'		
2.26	(L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes'		
2.28	(L1) Ensure 'Strict MIME type checking for worker scripts' Is Set to 'Require a JavaScript MIME type for worker scripts'		
2.29	Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging'		
4.7	(L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback'		

Appendix: CIS Controls v8 IG 1 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data'		
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data'		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage'		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines'		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled'		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured		

	Recommendation	Se Corre	
		Yes	No
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured		
2.7.1	(L1) Ensure 'First-Party Sets' Is Set to 'Disable First-Party Sets for all affected users'		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		
2.18	(L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates'		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google'		
2.20	(L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages'		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades'		
2.26	(L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes'		
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox'		

	Recommendation	Se Corre	
		Yes	No
2.29	Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging'		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved'		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies'		
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in'		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans'		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync'		
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages'		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu'		
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service'		
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google'		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files'		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest'		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation'		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission'		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input'		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps'		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback'		

Recommendation		Set Correctly	
		Yes	No
4.7	(L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback'		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms'		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms'		
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords'		
5.1	(L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins'		
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664'		

Appendix: CIS Controls v8 IG 2 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.2.1	(L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains'		
1.2.2	(L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups'		
1.3	(L1) Ensure 'Cast' is set to 'Do not allow users to cast'		
1.4	(L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp'		
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.7	(L1) Ensure 'Background mode' is set to 'Disable background mode'		
1.8	(L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.14	(L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks '		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.20	(L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API'		
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data'		

Recommendation		Se Corre	
		Yes	No
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data'		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage'		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines'		
1.25	(L1) Ensure 'HSTS policy bypass list' is Not Set		
1.27	(L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set		
2.1.1	(L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content'		
2.1.2	(L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API'		
2.1.3	(L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API'		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set		
2.2.1	(L1) Ensure 'External extensions' is set to 'Block external extensions from being installed'		
2.2.2	(L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme'		
2.2.3	(L1) Ensure 'App and extension install sources' Is Not Set		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled'		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured		
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		

Recommendation		Se Corre	
		Yes	No
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.3.1	(L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate'		
2.4.1	(L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*'		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured		
2.6.1	(L1) Ensure 'Remote support connections' is set to 'Prevent remote support connections'		
2.6.2	(L1) Ensure 'Remote access hosts' is set with a domain defined in 'Remote access host domain'		
2.6.3	(L1) Ensure 'Firewall traversal' is set to 'Disable firewall traversal'		
2.6.4	(L1) Ensure 'Firewall traversal' is set to 'Disable the use of relay servers'		
2.7.1	(L1) Ensure 'First-Party Sets' Is Set to 'Disable First-Party Sets for all affected users'		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.10	(L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings'		
2.11	(L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.13	(L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		

Recommendation		Se Corre	
		Yes	No
2.18	(L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates'		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google'		
2.20	(L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages'		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades'		
2.26	(L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes'		
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox'		
2.29	Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging'		
3.2.1	(L1) Ensure 'Cast' is set to 'Do not allow users to Cast'		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved'		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies'		
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in'		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans'		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync'		
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages'		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu'		

Recommendation		Se Corre	
		Yes	No
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service'		
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google'		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files'		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest'		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation'		
4.2.1	(L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API'		
4.2.2	(L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors'		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission'		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input'		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps'		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback'		
4.7	(L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback'		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms'		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms'		
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords'		
5.1	(L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins'		
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664'		

Appendix: CIS Controls v8 IG 3 Mapped Recommendations

Recommendation		Se Corre	
		Yes	No
1.2.1	(L1) Ensure no URLs Are Configured in 'Safe Browsing allowed domains'		
1.2.2	(L1) Ensure 'Safe Browsing protection' is set to 'Safe Browsing is active in the standard mode' and 'Allow higher-protection proxied lookups'		
1.3	(L1) Ensure 'Cast' is set to 'Do not allow users to cast'		
1.4	(L1) Ensure 'Google time service' is set to 'Allow queries to a Google server to retrieve an accurate timestamp'		
1.5	(L1) Ensure 'Audio sandbox' is set to 'Always sandbox the audio process'		
1.7	(L1) Ensure 'Background mode' is set to 'Disable background mode'		
1.8	(L2) Ensure 'SafeSites URL filter' is set to 'Filter top level sites (but not embedded iframes) for adult content'		
1.9	(L1) Ensure 'Variations' is set to 'Enable Chrome variations'		
1.14	(L1) Ensure 'DNS interception checks enabled' is set to 'Perform DNS interception checks '		
1.15	(L1) Ensure 'Component updates' is set to 'Enable updates for all components'		
1.18	(L1) Ensure 'Command-line flags' is set to 'Show security warnings when potentially dangerous command-line flags are used'		
1.19	(L1) Ensure 'Third party code' is set to 'Prevent third party code from being injected into Chrome'		
1.20	(L1) Ensure 'Enterprise Hardware Platform API' is set to 'Do not allow managed extensions to use the Enterprise Hardware Platform API'		
1.21	(L1) Ensure 'Force ephemeral mode' is set to 'Erase all local user data'		

Recommendation			et ectly
		Yes	No
1.22	(L1) Ensure 'Import autofill data' is set to 'Enable imports of autofill data'		
1.23	(L1) Ensure 'Import homepage' is set to 'Disable imports of homepage'		
1.24	(L1) Ensure 'Import search engines' is set to 'Disable imports of search engines'		
1.25	(L1) Ensure 'HSTS policy bypass list' is Not Set		
1.27	(L1) Ensure 'Suppress lookalike domain warnings on domains' is Not Set		
1.28	(L1) Ensure 'Unsupported system warning' is set to 'Allow Chrome to display warnings when running on an unsupported system'		
1.29	(L1) Ensure 'WebRTC ICE candidate URLs for local IPs' Is Not Set		
2.1.1	(L1) Ensure 'Control use of insecure content exceptions' is set to 'Do not allow any site to load mixed content'		
2.1.2	(L2) Ensure 'Web Bluetooth API' is set to 'Do not allow any site to request access to Bluetooth devices via the Web Bluetooth API'		
2.1.3	(L2) Ensure 'WebUSB API' is set to 'Do not allow any site to request access to USB devices via the WebUSB API'		
2.1.5	(L1) Ensure 'Allow local file access to file:// URLs on these sites in the PDF Viewer' Is Not Set		
2.2.1	(L1) Ensure 'External extensions' is set to 'Block external extensions from being installed'		
2.2.2	(L1) Ensure 'Allowed types of apps and extensions' is set to 'Extension', 'Hosted App', 'Chrome Packaged App', and 'Theme'		
2.2.3	(L1) Ensure 'App and extension install sources' Is Not Set		
2.2.4	(L2) Ensure 'Third-party storage partitioning' Is Set to 'Block third-party storage partitioning from being enabled'		
2.2.5	(L1) Ensure 'Allow third-party partitioning to be enabled' in 'Third-party storage partitioning' Is Configured		
2.2.6	(L2) Ensure 'Manifest v2 extension availability' Is Set to 'Enable force-installed manifest v2 extensions on the sign-in screen'		

Recommendation		Se Corre	
		Yes	No
2.2.7	(L1) Ensure 'Chrome Web Store unpublished extensions' Is Set to 'Disable unpublished extensions'		
2.3.1	(L2) Ensure 'Supported authentication schemes' is set to 'NTLM' and 'Negotiate'		
2.4.1	(L2) Ensure 'Prohibited Native Messaging hosts' in 'Native Messaging blocked hosts' is set to '*'		
2.5.1	(L1) Ensure 'Password manager' is Explicitly Configured		
2.6.1	(L1) Ensure 'Remote support connections' is set to 'Prevent remote support connections'		
2.6.2	(L1) Ensure 'Remote access hosts' is set with a domain defined in 'Remote access host domain'		
2.6.3	(L1) Ensure 'Firewall traversal' is set to 'Disable firewall traversal'		
2.6.4	(L1) Ensure 'Firewall traversal' is set to 'Disable the use of relay servers'		
2.7.1	(L1) Ensure 'First-Party Sets' Is Set to 'Disable First-Party Sets for all affected users'		
2.8.1	(L1) Ensure 'Azure Cloud Authentication' Is Set to 'Enable Azure cloud authentication'		
2.9	(L1) Ensure 'Download restrictions' is set to 'Block malicious downloads'		
2.10	(L2) Ensure 'SSL error override' is set to 'Block users from clicking through SSL warnings'		
2.11	(L1) Ensure 'Disable bypassing Safe Browsing warnings' is set to 'Do not allow user to bypass Safe Browsing warning'		
2.12	(L1) Ensure 'Site isolation' is set to 'Require Site Isolation for all websites, as well as any origins below'		
2.13	(L2) Ensure 'SafeSearch and Restricted Mode' is set to 'Always use Safe Search for Google Web Search queries'		
2.14	(L1) Ensure 'Relaunch notification' is set to 'Show notification recommending relaunch'		
2.15	(L1) Ensure 'Proxy mode' is Not Set to 'Always auto detect the proxy'		

Recommendation		Se Corre	
		Yes	No
2.17	(L1) Ensure 'Relaunch notification' sets 'Time Period (hours)' to '168 or less' and 'Initial quiet period (hours)' to less than 'Time Period (hours)'		
2.18	(L1) Ensure 'Web Authentication requests on sites with broken TLS certificates' Is Set to 'Do not allow WebAuthn API requests on sites with broken TLS certificates'		
2.19	(L1) Ensure 'Allow reporting of domain reliability related data' Is 'Never send domain reliability data to Google'		
2.20	(L1) Ensure 'TLS encrypted ClientHello' Is 'Enable the TLS Encrypted ClientHello experiment'		
2.22	(L1) Ensure 'File/directory picker without user gesture' Is Not Set		
2.23	(L1) Ensure 'Side Panel search' Is Set to 'Disable Side Panel search on all web pages'		
2.24	(L1) Ensure 'Http Allowlist' Is Properly Configured		
2.25	(L1) Ensure 'Automatic HTTPS upgrades' Is Set to 'Allow HTTPS upgrades'		
2.26	(L1) Ensure 'Insecure hashes in TLS handshakes' Is Set to 'Do not allow insecure hashes in TLS handshakes'		
2.27	(L1) Ensure 'Renderer App Container' Is Set to 'Enable the Renderer App Container sandbox'		
2.29	Ensure 'Allow remote debugging' is set to 'Do not allow use of the remote debugging'		
3.2.1	(L1) Ensure 'Cast' is set to 'Do not allow users to Cast'		
3.3	(L1) Ensure 'Payment methods' is set to 'Always tell websites that no payment methods are saved'		
3.4	(L1) Ensure 'Third-party cookie blocking' is set to 'Disallow third-party cookies'		
3.5	(L2) Ensure 'Browser sign in settings' is set to 'Disabled browser sign-in'		
3.6	(L1) Ensure 'Chrome Cleanup' is set to 'Prevent Chrome Cleanup from periodical scans and disallow manual scans'		
3.7	(L1) Ensure 'Chrome Sync and Roaming Profiles (Chrome Browser - Cloud Managed)' is set to 'Disallow Sync'		

Recommendation		Se Corre	
		Yes	No
3.8	(L1) Ensure 'Alternate error pages' is set to 'Never use alternate error pages'		
3.9	(L1) Ensure 'Clear browser history' Is Set to 'Do not allow clearing history in settings menu'		
3.11	(L1) Ensure 'Spell check service' is set to 'Disable the spell checking web service'		
3.12	(L1) Ensure 'Metrics reporting' is set to 'Do not send anonymous reports of usage and crash-related data to Google'		
3.13	(L1) Ensure 'Safe Browsing for trusted sources' is set to 'Perform Safe Browsing checks on all downloaded files'		
3.14	(L2) Ensure 'Search suggest' is set to 'Never allow users to use Search Suggest'		
3.15	(L2) Ensure 'Google Translate' is set to 'Never offer translation'		
4.2.1	(L2) Ensure 'Web Serial API' is set to 'Do not allow any site to request access to serial ports via the Web Serial API'		
4.2.2	(L2) Ensure 'Sensors' is set to 'Do not allow any site to access sensors'		
4.2.3	(L1) Ensure 'Clipboard' Is Set to 'Do not allow any site to use the clipboard site permission'		
4.3	(L2) Ensure 'File selection dialogs' is set to 'Block file selection dialogs'		
4.4	(L2) Ensure 'Audio input (microphone)' is set to 'Disable audio input'		
4.5	(L2) Ensure 'Video input (camera)' is set to 'Disable camera input for websites and apps'		
4.6	(L1) Ensure 'Allow user feedback' is set to 'Do not allow user feedback'		
4.7	(L2) Ensure 'DNS over HTTPS' is set to 'Enable DNS-over-HTTPS without insecure fallback'		
4.8	(L2) Ensure 'Address form Autofill' is set to 'Never Autofill address forms'		
4.9	(L1) Ensure 'Credit card form Autofill' is set to 'Never Autofill credit card forms'		

Recommendation			et ectly
		Yes	No
4.10	(L1) Ensure 'Import saved passwords' is set to 'Disable imports of saved passwords'		
5.1 (L2) Ensure 'Browser guest mode' is set to 'Prevent guest browser logins'			
5.3	(L1) Ensure 'Disk cache size in bytes' in 'Disk cache size' is set to `250609664'		

Appendix: CIS Controls v8 Unmapped Recommendations

Recommendation		Set Correctly	
		Yes	No
2.28	(L1) Ensure 'Strict MIME type checking for worker scripts' Is Set to 'Require a JavaScript MIME type for worker scripts'		

Appendix: Change History

Date	Version	Changes for this version
March 12, 2024	1.0.0	Initial Draft Release
March 29, 2024	1.0.0	Initial Release