

CIS Google Workspace Foundations Benchmark

v1.1.0 - 02-24-2023

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Table of Contents

Terms of Use	1
Table of Contents	2
Overview	6
Intended Audience	6
Consensus Guidance	7
Typographical Conventions	8
Recommendation Definitions	9
Title	9
Assessment Status Automated	9
Profile	9
Description	9
Rationale Statement	9
Impact Statement	10
Audit Procedure	10
Remediation Procedure	10
Default Value	10
References	10
CIS Critical Security Controls® (CIS Controls®)	10
Additional Information	10
Profile Definitions	11
Acknowledgements	12
Recommendations	
1 Directory	13
1.1.1 (L1) Ensure more than one Super Admin account exists (Manual)	16
1.2 Directory Settings	
1.2.1.1 (L1) Ensure directory data access is externally restricted (Manual)	19
2 Devices	21
3 Apps	22
3.1.1.1.1 (L1) Ensure external sharing options for primary calendars are configured (Manual)	23

	3.1.1.1.2 (L2) Ensure internal sharing options for primary calendars are configured (Manual)	25
	3.1.1.1.3 (L1) Ensure external invitation warnings for Google Calendar are configured (Manual)	27
	3.1.1.2.1 (L1) Ensure external sharing options for secondary calendars are configured (Manual)	29
	3.1.1.2.2 (L2) Ensure internal sharing options for secondary calendars are configured (Manual)	31
	3.1.1.3.1 (L2) Ensure calendar web offline is disabled (Manual)	34
3.1.	2 Drive and Docs	36
	3.1.2.1.1.1 (L1) Ensure users are warned when they share a file outside their domain (Manual)	
	3.1.2.1.1.2 (L1) Ensure users cannot publish files to the web or make visible to the world as public or	
	unlisted (Manual)	39
	3.1.2.1.1.3 (L2) Ensure document sharing is being controlled by domain with allowlists (Manual)	41
	3.1.2.1.1.4 (L2) Ensure users are warned when they share a file with users in an allowlisted domain	
	(Manual)	43
	3.1.2.1.1.5 (L1) Ensure Access Checker is configured to limit file access (Manual)	45
	3.1.2.1.1.6 (L1) Ensure only users inside your organization can distribute content externally (Manual)	47
	3.1.2.1.2.1 (L1) Ensure users can create new shared drives (Manual)	50
	3.1.2.1.2.2 (L1) Ensure manager access members cannot modify shared drive settings (Manual)	52
	3.1.2.1.2.3 (L1) Ensure shared drive file access is restricted to members only (Manual)	54
	3.1.2.1.2.4 (L2) Ensure viewers and commenters ability to download, print, and copy files is disabled	
	(Manual)	
	3.1.2.2.1 (L1) Ensure offline access to documents is disabled (Manual)	
	3.1.2.2.2 (L1) Ensure desktop access to Drive is disabled (Manual)	
	3.1.2.2.3 (L1) Ensure Add-Ons is disabled (Manual)	63
3.1.	3 Gmail	64
	3.1.3.1.1 (L1) Ensure users cannot delegate access to their mailbox (Manual)	66
	3.1.3.1.2 (L1) Ensure offline access to Gmail is disabled (Manual)	68
	3.1.3.2.1 (L1) Ensure that DKIM is enabled for all mail enabled domains (Manual)	71
	3.1.3.2.2 (L1) Ensure the SPF record is configured for all mail enabled domains (Manual)	73
	3.1.3.2.3 (L1) Ensure the DMARC record is configured for all mail enabled domains (Manual)	75
	3.1.3.3.1 (L1) Enable quarantine admin notifications for Gmail (Manual)	79
	3.1.3.4.1.1 (L1) Ensure protection against encrypted attachments from untrusted senders is enabled	
	(Manual)	82
	3.1.3.4.1.2 (L1) Ensure protection against attachments with scripts from untrusted senders is enabled	
	(Manual)	
	3.1.3.4.1.3 (L1) Ensure protection against anomalous attachment types in emails is enabled (Manual)	
	3.1.3.4.2.1 (L1) Ensure link identification behind shortened URLs is enabled (Manual)	
	3.1.3.4.2.2 (L1) Ensure scan linked images for malicious content is enabled (Manual)	
	3.1.3.4.2.3 (L1) Ensure warning prompt is shown for any click on links to untrusted domains (Manual)	
	3.1.3.4.3.1 (L1) Ensure protection against domain spoofing based on similar domain names is enabled (Manual)	
	3.1.3.4.3.2 (L1) Ensure protection against spoofing of employee names is enabled (Manual)	
	3.1.3.4.3.3 (L1) Ensure protection against spooling of employee frames is enabled (Manual)	
	3.1.3.4.3.4 (L1) Ensure protection against inbound emails spooling your domain is enabled (Manual)	
	3.1.3.4.3.5 (L1) Ensure groups are protected from inbound emails spoofing your domain (Manual)	
	3.1.3.5.1 (L2) Ensure POP and IMAP access is disabled for all users (Manual)	
	3.1.3.5.2 (L1) Ensure automatic forwarding options are disabled (Manual)	
	3.1.3.5.3 (L1) Ensure per-user outbound gateways is disabled (Manual)	
	3.1.3.5.4 (L1) Ensure external recipient warnings are enabled (Manual)	
	3.1.3.6.1 (L1) Ensure enhanced pre-delivery message scanning is enabled (Manual)	
	3.1.3.6.2 (L1) Ensure spam filters are not bypased for internal senders (Manual)	
0 4	3.1.3.7.1 (L1) Ensure comprehensive mail storage is enabled (Manual)	
ა.1.	4 Google Chat and classic Hangouts	
	3.1.4.1.1 (L1) Ensure external filesharing in Google Chat and Hangouts is disabled (Manual)	
	3.1.4.1.2 (L2) Ensure internal filesharing in Google Chat and Hangouts is disabled (Manual)	.124

3.1.4.2.1 (L1) Ensure warn users in Google Chat and Hangouts is enabled (Manual)	
3.1.4.2.2 (L1) Ensure Google Chat externally is restricted to allowed domains (Manual)	
3.1.4.3.1 (L1) Ensure external spaces in Google Chat and Hangouts are restricted (Manual)	
3.1.4.4.1 (L1) Ensure allow users to install Chat apps is disabled (Manual)	
3.1.4.4.2 (L1) Ensure allow users to add and use incoming webhooks is disabled (Manual)	
3.1.5 Google Meet	
3.1.6 Groups for Business	
3.1.6.1 (L1) Ensure accessing groups from outside this organization is set to private (Manual)	
3.1.6.2 (L1) Ensure creating groups is restricted (Manual)	
3.1.7 Sites	
3.1.7.1 (L1) Ensure service status for Google Sites is set to off (Manual)	
3.1.8 Additional Google services	
3.1.8.1 (L1) Ensure access to external Google Groups is OFF for Everyone (Manual)	
3.1.9 Google Workspace Marketplace	
3.1.9.1.1 (L1) Ensure users access to Google Workspace Marketplace apps is restricted (Manual)	
4 Security	
4.1 Authentication	
4.1.1 2-Step Verification	155
4.1.1.1 (L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles (Manual)	156
4.1.1.2 (L2) Ensure hardware security keys are used for all users in administrative roles and other high	
value accounts (Manual)	
4.1.1.3 (L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users (Manual).	
4.1.2 Account Recovery	
4.1.2.1 (L1) Ensure Super Admin account recovery is enabled (Manual)	.165
4.1.2.2 (L1) Ensure User account recovery is enabled (Manual)	.167
4.1.3 Advanced Protection Program	169
4.1.3.1 (L2) Ensure Advanced Protection Program is configured (Manual)	.170
4.1.4 Login Challenges	173
4.1.4.1 (L2) Ensure login challenges are enforced (Manual)	.174
4.1.5 Password Management	176
4.1.5.1 (L1) Ensure password policy is configured for enhanced security (Manual)	.177
4.2 Access and Data Control	179
4.2.1 API Controls	
4.2.1.1 (L2) Ensure application access to Google services is restricted (Manual)	
4.2.1.2 (L2) Review third-party applications periodically (Manual)	
4.2.1.3 (L1) Ensure internal apps can access Google Workspace APIs (Manual)	
4.2.1.4 (L2) Review domain-wide delegation for applications periodically (Manual)	
4.2.2 Context-Aware Access	
4.2.2.1 (L1) Ensure blocking access from unapproved geographic locations (Manual)	
4.2.3 Data Protection	
4.2.3.1 (L1) Ensure DLP policies for Google Drive are configured (Manual)	
4.2.4 Google Session Control	
4.2.4.1 (L1) Ensure Google session control is configured (Manual)	
4.2.5 Google Cloud Session Control	
4.2.5.1 (L2) Ensure Google Cloud session control is configured (Manual)	
4.2.6 Less Secure Apps	
4.2.6.1 (L1) Ensure less secure app access is disabled (Manual)	
4.3 Security Center	
4.3.1 (L1) Ensure the Dashboard is reviewed regularly for anomalies (Manual)	.206

4.3.2 (L1) Ensure the Security health is reviewed regularly for anomalies (Manual)	208
5 Reporting	210
5.1 Reports	-
5.1.1 User Reports	
5.1.1.1 (L1) Ensure the App Usage Report is reviewed regularly for anomalies (Manual)	211
5.1.1.2 (L1) Ensure the Security Report is reviewed regularly for anomalies (Manual)	
6 Rules	217
6.1 (L1) Ensure User's password changed is configured (Manual)	218
6.2 (L1) Ensure Government-backed attacks is configured (Manual)	
6.3 (L1) Ensure User suspended due to suspicious activity is configured (Manual)	
6.4 (L1) Ensure User granted Admin privilege is configured (Manual)	
6.5 (L1) Ensure Suspicious programmatic login is configured (Manual)	
6.6 (L1) Ensure Suspicious login is configured (Manual)	
6.7 (L1) Ensure Leaked password is configured (Manual)	
6.8 (L1) Ensure Gmail potential employee spoofing is configured (Manual)	
Appendix: Summary Table	23 4
Appendix: Change History	267

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, Security Configuration Benchmark for Google Workspace, provides prescriptive guidance for establishing a secure configuration posture for Google Workspace running on any OS. This guide was tested against Google Workspace Enterprise, and includes recommendations for Gmail, Drive and Docs, Calendar, Accounts, and Applications. To obtain the latest version of this guide, please visit http://cisecurity.org. If you have questions, comments, or have identified ways to improve this guide, please write us at feedback@cisecurity.org.

Intended Audience

This benchmark is intended for system and application administrators, security specialists, auditors, help desk, and platform deployment personnel who plan to develop, deploy, assess, or secure solutions that incorporate Google Workspace Enterprise.

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:

Enterprise Level 1

Items in this profile apply to customer deployments of Google Workspace with an Enterprise license and intend to:

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

Enterprise Level 2

This profile extends the "Enterprise Level 1" profile. Items in this profile exhibit one or more of the following characteristics and is focused on customer deployments of Google Workspace Enterprise:

- o are intended for environments or use cases where security is paramount
- o acts as defense in depth measure
- o may negatively inhibit the utility or performance of the technology.

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:

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Recommendations

1 Directory

The Directory section of the Google Workspace Admin Console.

1.1 Users

User defined in this domain and their permissions.

1.1.1 (L1) Ensure more than one Super Admin account exists (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Having more than one Super Admin account is needed primarily so that a single point of failure can be avoided. Also, for larger organizations, having multiple Super Admins can be useful for workload balancing purposes.

Rationale:

From a security point of view, having only a single Super Admin Account can be problematic if this user were unavailable for an extended period of time. Also, Super Admin accounts should never be shared amongst multiple users.

Impact:

There should be no user impact, but Administrators should have a normal (low privilege) and an Administrative (high privilege) account.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Directory and click on Users, this will show a list of all users
- 3. Click on + Add a filter, select Admin role, check the Super admin box, and then select Apply
- 4. The list of Users displayed will only be those with the Super Admin role
- 5. Make sure more than one (1) user is listed

Remediation:

Create at least one additional account with a Super Admin role.

NOTE: A new account should be created vs adding this role to an existing account since Administration tasks should be done through separate Admin accounts.

Default Value:

All Google Workspace tenants will have one Super Admin initially.

Controls Version	Control	IG 1	IG 2	IG 3
v8	5.1 Establish and Maintain an Inventory of Accounts Establish and maintain an inventory of all accounts managed in the enterprise. The inventory must include both user and administrator accounts. The inventory, at a minimum, should contain the person's name, username, start/stop dates, and department. Validate that all active accounts are authorized, on a recurring schedule at a minimum quarterly, or more frequently.	•	•	•
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.		•	•

1.1.2 (L1) Ensure no more than 4 Super Admin accounts exist (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Having more than one Super Admin account is needed primarily so that a single point of failure can be avoided, but having too many should be avoided.

Rationale:

From a security point of view, having a large number of Super Admin accounts is a bad practice. In general, all users should be assigned the least privileges needed to do their job. This includes Administrators since not everyone that needs to "Administer Something" needs to be a Super Admin. Google Workspaces provides many predefined Administration Roles and also allows the creation of Custom Roles with very granular permission selection.

Impact:

There should be no user impact, but Administrators should have a normal (low privilege) and an Administrative (high privilege) account.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Directory and click on Users, this will show a list of all users
- 3. Click on + Add a filter, select Admin role, check the Super admin box, and then select Apply
- 4. The list of Users displayed will only be those with the Super Admin role
- 5. Make sure no more than four (4) users are listed

Remediation:

Reduce the number of accounts with a "Super Admin" role.

Default Value:

All Google Workspace tenants will have one Super Admin initially.

Controls Version	Control	IG 1	IG 2	IG 3
v8	5.1 Establish and Maintain an Inventory of Accounts Establish and maintain an inventory of all accounts managed in the enterprise. The inventory must include both user and administrator accounts. The inventory, at a minimum, should contain the person's name, username, start/stop dates, and department. Validate that all active accounts are authorized, on a recurring schedule at a minimum quarterly, or more frequently.	•	•	•
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.		•	•

1.2 Directory Settings

The Directory section of the Google Workspace Admin Console.

1.2.1 Sharing Settings

Decide how users can share contacts, both within your organization and externally.

1.2.1.1 (L1) Ensure directory data access is externally restricted (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configure Google Workspace's external directory sharing to prevent unrestricted directory data access.

Rationale:

If your organization uses third-party apps that integrate with your Google services, you control how much Directory information the external apps can access.

If you allow directory access, your users have a better experience with external apps. For example, when they use a third-party mail app, they want to find domain contacts and have email addresses automatically complete. The app needs access to Directory data to make this happen. However, this has the ability to share ALL domain AND public data with the connected third-party app.

- Public data and authenticated user basic profile fields Share publicly visible domain profile data with external apps and APIs. Also share the authenticated user's name, photo, and email address to enable Google Sign-In if the appropriate scopes are granted. Other non-public profile fields for the authenticated user aren't shared. All the non-public profile information of other users in the domain aren't shared.
- Domain and public data (Default) Share all Directory information that's shared with your domain and public data. This information includes profile information for users in your domain, shared external contacts, and Google+ profile names and photos.

Impact:

The External directory sharing setting applies only to the following APIs and the Apps Scripts or third-party Marketplace apps that use those APIs:

- Google People API
- Google CardDAV API
- Google Contacts API v3

The setting applies only to third-party apps, such as iOS Mail and iOS Contacts (when enrolled on an iOS device via Add Account and then Google), third-party Contacts apps (on Android).

The setting doesn't apply to Google products, including mobile apps, such as the following

- Gmail, Contacts (on Android), Inbox, Meet, and other Google mobile apps
- iOS Mail and iOS Contacts using Google Sync (when enrolled on an iOS device through Add Account and then Exchange)
- Workspace Sync for Microsoft Outlook

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Open the collapsed menu via "hamburger button \ 3 horizontal lines"
- 3. Under Directory, select Directory settings
- 4. Under Sharing settings, select External Directory sharing
- 5. Ensure Domain and public data is not selected
- 6. Select Save

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Open the collapsed menu via "hamburger button \ 3 horizontal lines"
- 3. Under Directory, select Directory settings
- 4. Under Sharing settings, select External Directory sharing
- 5. Select Public data and authenticated user basic profile fields

Default Value:

• External Directory sharing = Domain and public data

2 Devices

The Devices section of the Google Workspace Admin Console is outside the scope of this Benchmark. The Chrome settings are currently covered in the CIS Chrome Benchmark. The Mobile & endpoint settings will be covered in a future Benchmark.

3 Apps

The Apps section of the Google Workspace Admin Console.

3.1 Google Workspace

The Google Workspace sub-section of the Google Workspace Admin Console.

3.1.1 Calendar

Calendar settings.

3.1.1.1 Sharing Settings

Set global sharing policies for user's primary calendars.

3.1.1.1.1 (L1) Ensure external sharing options for primary calendars are configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control how much calendar information users in your organization can share externally.

Rationale:

Prevent data leakage by restricting the amount of information that is externally viewable when a user shares their calendar with someone external to your organization.

Impact:

- Once you limit external sharing for your organization, users can't exceed these limits when sharing individual events. For example, if you limit your organization's external sharing to Free/Busy, events with Public visibility are only shared as Free/Busy.
- External mobile users who previously synced events may keep seeing restricted details. That access stops when their device is wiped and re-synced.
- If you lower the external sharing level, people outside your organization may lose access to calendars they could previously see.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- ${\sf 5.}$ Under Sharing settings, select External sharing options for primary calendars
- 6. Ensure Only free/busy information (hide event details) is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Sharing settings, select External sharing options for primary calendars
- 6. Select Only free/busy information (hide event details)
- 7. Select save

Default Value:

External sharing options for primary calendars ${\sf iS}$ Only free/busy information (hide event details)

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.1.1.2 (L2) Ensure internal sharing options for primary calendars are configured (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Control how much calendar information users in your organization can share internally.

Rationale:

In general, not everyone in the organization needs to know the schedule details of everyone else (operational security). Free/busy indication is enough for most people.

Impact:

This will be the default for the user's primary calendar. The user can override this setting to allow other specific users greater visibility of their calendar.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Sharing settings, select Internal sharing options for primary calendars
- 6. Ensure Only free/busy information (hide event details) is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Sharing settings, select Internal sharing options for primary calendars
- 6. Select Only free/busy information (hide event details)
- 7. Select save

Default Value:

Internal sharing options for primary calendars $i\mathbf{S}$ Share all information

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.1.1.3 (L1) Ensure external invitation warnings for Google Calendar are configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configure Google Calendar to warn users when inviting guest outside your domain.

Rationale:

When your users create a Google Calendar event that includes one or more guests from outside of your domain, they are prompted to confirm whether it's OK to include external guests in the event invitation, assisting in the prevention of unintentional data leakage.

Impact:

Users will be prompted to allow the inclusion of external guests in an event invitation.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Sharing settings, select External invitations
- 6. Ensure Warn users when inviting guests outside of the domain ${\sf is}$ checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Sharing settings, select External Invitations
- 6. Set Warn users when inviting guests outside of the domain to checked
- 7. Select save

Default Value:

Warn users when inviting quests outside of the domain iS checked

3.1.1.2 General Settings

Configure external sharing policies.

3.1.1.2.1 (L1) Ensure external sharing options for secondary calendars are configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control how much calendar information users in your organization can share externally.

Rationale:

Prevent data leakage by restricting the amount of information is externally viewable when a user shares their calendar with someone external to your organization.

Impact:

- Once you limit external sharing for your organization, users can't exceed these limits when sharing individual events. For example, if you limit your organization's external sharing to Free/Busy, events with Public visibility are only shared as Free/Busy.
- External mobile users who previously synced events may keep seeing restricted details. That access stops when their device is wiped and re-synced.
- If you lower the external sharing level, people outside your organization may lose access to calendars they could previously see.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under General settings, **Select** External sharing options for secondary calendars
- 6. Ensure Only free/busy information (hide event details) is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under General settings, select External sharing options for secondary calendars
- 6. Select Only free/busy information (hide event details)
- 7. Select save

Default Value:

External sharing options for secondary calendars $\dot{\textbf{IS}}$ Share all information, but outsiders cannot change calendars

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.1.2.2 (L2) Ensure internal sharing options for secondary calendars are configured (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Control how much calendar information users in your organization can share internally.

Rationale:

In general, not everyone in the organization needs to know the schedule details of everyone else (operational security). Free/busy indication is enough for most people.

Impact:

This will be the default for the user's secondary calendars. The user can override this setting to allow other specific users greater visibility of their calendars.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under General settings, **Select** Internal sharing options for secondary calendars
- 6. Ensure Only free/busy information (hide event details) is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under General settings, select Internal sharing options for secondary calendars
- 6. Select Only free/busy information (hide event details)
- 7. Select save

Default Value:

Internal sharing options for secondary calendars ${\sf iS}$ Share all information

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.1.3 Advanced Settings

Enable Google Calendar features for your users.

3.1.1.3.1 (L2) Ensure calendar web offline is disabled (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Limit who is allowed offline calendar access.

Rationale:

When enabled, users can turn on offline use for each computer they use. Data is stored on the computer until offline use is turned off by the user. In this case, the organization can lose control of where its data is stored (for this user). Care should be taken regarding which users and groups have this capability enabled.

Impact:

Users will not be able to access their calendars offline.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Advanced settings, select Calendar web offline
- 6. Ensure Allow using Calendar on the web when offline is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Calendar
- 5. Under Advanced settings, select Calendar web offline
- 6. Set Allow using Calendar on the web when offline to unchecked
- 7. Select save

Default Value:

Allow using Calendar on the web when offline is checked

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.		•	•

3.1.2 Drive and Docs

Drive and Docs settings.

3.1.2.1 Sharing Settings

Set global policies for sharing files outside your organization, and define the default link sharing visibility of new files.

3.1.2.1.1 Sharing Options

Sharing outside of organization.

3.1.2.1.1.1 (L1) Ensure users are warned when they share a file outside their domain (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Warn the user when they try and share a file and/or shared drive externally.

Rationale:

The user may not realize the potential account is external to the organization. Providing a warning allows the user an opportunity to know this and possibly reassess this sharing.

Impact:

None, except an additional warning. Sharing can still occur.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Sharing outside of <Company>
- 7. Ensure ON Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well. is checked. Also, ensure the sub-setting For files owned by users in <Company> warn when sharing outside of <Company> is checked.

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Sharing outside of <Company>
- 7. Set ON Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well. to checked. Also, set the sub-setting For files owned by users in <Company> warn when sharing outside of <Company> to checked.
- 8. Select save

Default Value:

For files owned by users in <Company> warn when sharing outside of <Company> iS checked

3.1.2.1.1.2 (L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted (Manual)

Profile Applicability:

Enterprise Level 1

Description:

You should control the publishing of documents to the web or making them visable to the world as public or unlisted.

Rationale:

Attackers will often attempt to expose sensitive information to external entities through sharing, and restricting the methods that your users can share documents with will reduce that surface area.

This setting is only applicable if ON - Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well is selected, but should be configured as described below to prevent unintentional document publishing.

Impact:

Enabling this feature will prevent users from publishing documents on the web or making them visible to the world as public or unlisted files.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- 6. Under Sharing outside of <Company> ON Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well, ensure When sharing outside of <Company> is allowed, users in <Company> can make files and published web content visible to anyone with the link is unchecked

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- 6. Under Sharing outside of <Company> ON Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well, Set When sharing outside of <Company> is allowed, users in <Company> can make files and published web content visible to anyone with the link to unchecked
- 7. Select save

Default Value:

When sharing outside of <Company> is allowed, users in <Company> can make files and published web content visible to anyone with the link is Checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.1.3 (L2) Ensure document sharing is being controlled by domain with allowlists (Manual)

Profile Applicability:

Enterprise Level 2

Description:

You should control sharing of documents to external domains by either blocking domains or only allowing sharing with specific named domains.

Rationale:

Attackers will often attempt to expose sensitive information to external entities through sharing, and restricting the domains that your users can share documents with will reduce that surface area.

Impact:

Enabling this feature will prevent users from sharing documents with domains outside of the organization unless allowed.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- 6. Under Sharing outside of <Company>, ensure ALLOWLISTED DOMAINS Files owned by users in <Company> can be shared with Google Accounts in compatible allowlisted domains. is selected
- 7. **Ensure** Warn when files owned by users or shared drives in <Company> are shared with users in allowlisted domains **is** checked

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- 6. Under Sharing outside of <Company>, select ALLOWLISTED DOMAINS Files owned by users in <Company> can be shared with Google Accounts in compatible allowlisted domains.
- 7. **Set** Warn when files owned by users or shared drives in <Company> are shared with users in allowlisted domains to checked
- 8. Select save

Default Value:

Sharing outside of <Company> iS ON - Files owned by users in <Company> can be shared outside of <Company>. This applies to files in all shared drives as well.

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.1.4 (L2) Ensure users are warned when they share a file with users in an allowlisted domain (Manual)

Profile Applicability:

Enterprise Level 2

Description:

Warn the user when they try and share a file and/or shared drive with users in an allowlisted domain.

Rationale:

The user may not realize the potential account is external to the organization. Providing a warning allows the user an opportunity to know this and possibly reassess this sharing.

Impact:

None, except an additional warning. Sharing can still occur.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Sharing outside of <Company>
- 7. Ensure ALLOWLISTED DOMAINS Files owned by users or shared drives in BMDT-Group can be shared with Google accounts in compatible allowlisted domains is checked. Also, ensure the sub-setting Warn when files owned by users or shared drives in <Company> are shared with users in allowlisted domains is checked.

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Sharing outside of <Company>
- 7. Set ALLOWLISTED DOMAINS Files owned by users or shared drives in BMDT-Group can be shared with Google accounts in compatible allowlisted domains. to checked. Also, set the sub-setting Warn when files owned by users or shared drives in <Company> are shared with users in allowlisted domains to checked.
- 8. Select save

Default Value:

For files owned by users in <Company> warn when sharing outside of <Company> iS checked

3.1.2.1.1.5 (L1) Ensure Access Checker is configured to limit file access (Manual)

Profile Applicability:

Enterprise Level 1

Description:

When a user shares a file via a Google product other than Docs or Drive (e.g. by pasting a link in Gmail), Google can check that the recipients have access. If not, when possible, Google will ask the user to pick how they want to share the file.

Rationale:

In general, access should be restricted to the smallest group possible. In this case recipients only.

Impact:

Only recipients can access files. Recipients cannot share access with others by forwarding the email/link.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Access Checker
- 7. Ensure Recipients only. is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Drive and Docs
- 4. Select Sharing Settings
- 5. Select Sharing Options
- 6. Under Access Checker
- 7. Set Recipients only. to checked
- 8. Select save

Default Value:

Recipients only, suggested target audience, or public (no Google account required). $\dot{\textbf{IS}}$ checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.1.6 (L1) Ensure only users inside your organization can distribute content externally (Manual)

Profile Applicability:

Enterprise Level 1

Description:

You should control who is allowed to distribute organizational content to shared drives owned by another organization.

Rationale:

Sharing and collaboration are key; however, only your users should have the authority over where company content is shared with to prevent unauthorized disclosures of information.

Impact:

Only people in your organization with Manager access to a shared drive can move files from that shared drive to a Drive location in a different organization.

In addition, users in the selected organizational unit or group can copy content from their My Drive to a shared drive owned by a different organization.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- **6.** Under Distributing content outside of <Company>, ensure Only users in <Company> is selected

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Sharing options
- 6. Under Distributing content outside of <Company>, select Only users in <Company>
- 7. Select save

Default Value:

Distributing content outside of <Company> is Anyone

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.2 Shared Drive Creation

Default settings for new shared drives.

3.1.2.1.2.1 (L1) Ensure users can create new shared drives (Manual)

Profile Applicability:

Enterprise Level 1

Description:

All users should have the ability to create new shared drives.

Rationale:

By default, when a user account is deleted all the data in their personal drive is deleted as well. By allowing any user to create new shared drives aids in preventing data loss when user accounts are deleted.

Impact:

Disabling this feature will prevent users from creating new shared drives.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Shared drive creation
- 6. Ensure Prevent users in <Company> from creating new shared drives is unchecked

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Under Sharing settings, select Shared drive creation
- $\textbf{6. Set} \; \texttt{Prevent users in < Company> from creating new shared drives} \; \textbf{to} \\ \text{unchecked}$
- 7. Select save

Default	Value:							
Prevent	users	in	<company></company>	from	creating	new	shared	drives iS unchecked

3.1.2.1.2.2 (L1) Ensure manager access members cannot modify shared drive settings (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Only administrators should be able to modify shared drive settings.

Rationale:

Allowing manager access members to override or modify shared drive settings can allow intentional and unintentional data access by unauthorized users.

Impact:

Disabling this feature will prevent manager access members from modifying shared drive settings, requiring administrators to perform settings modifications as required.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- **6.** Under Shared drive creation, ensure Allow members with manager access to override the settings below is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- **6.** Under Shared drive creation, **set** Allow members with manager access to override the settings below **to** unchecked
- 7. Select save

Default Value:

Allow members with manager access to override the settings below ${\sf iS}$ checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.2.3 (L1) Ensure shared drive file access is restricted to members only (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Shared drive file access should be restricted to that shared drive's members

Rationale:

Preventing unauthorized users from access sensitive data is paramount in preventing unauthorized or unintentional information disclosures.

Impact:

Disabling this feature will prevent shared drive non-members from accessing content in shared drives where they are not a member.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- **6.** Under Shared drive creation, ensure Allow people who aren't shared drive members to be added to files is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- 6. Under Shared drive creation, set Allow people who aren't shared drive members to be added to files to unchecked
- 7. Select save

Default Value:

Allow people who aren't shared drive members to be added to files ${\sf iS}$ checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.1.2.4 (L2) Ensure viewers and commenters ability to download, print, and copy files is disabled (Manual)

Profile Applicability:

Enterprise Level 2

Description:

limit what viewers/commenters on a shared document can do with it.

Rationale:

In many cases when sharing a document it might be fine for the users to do what they want with the document on the shared drive (Download, Print, etc.). In more restricted environments these capabilities may need to be prevented (Protected Intellectual property, Personally Identifiable Information, etc.).

Impact:

Users of this shared drive will be restricted to only reading and commenting on the existing files.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- 6. Under Shared drive creation, ensure Allow viewers and commenters to download, print, and copy files is unchecked

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Sharing settings
- **6.** Under Shared drive creation, **Set** Allow viewers and commenters to download, print, and copy files **tO** unchecked
- 7. Select save

Default Value:

Allow viewers and commenters to download, print, and copy files ${\sf iS}$ unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.2.2 Features and Applications

Manage which features and	applications are available t	o users in your organization.

3.1.2.2.1 (L1) Ensure offline access to documents is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Prevent documents from being locally accessible on an unconnected device.

Rationale:

This setting prevents an organization's files from being stored locally, thus limiting data loss issues if the device is lost or stolen.

Impact:

Copies of recent files are only synced and saved on devices if you've defined a managed policy to do so.

NOTE: All users will lose access to offline documents on all devices if managed devices policies are not set.

NOTE: Setting up policies to control offline access on individual devices is outside the scope of this Benchmark. Additional information om doing this for various device types can be found <u>here</u>.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Offline
- 7. Ensure Control offline access using device policies is checked

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Offline
- 7. Set Control offline access using device policies. to checked
- 8. Select save

Default Value:

Control offline access using device policies ${\sf iS}$ unchecked

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.		•	•

3.1.2.2.2 (L1) Ensure desktop access to Drive is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Prevent documents from being locally accessible on an unconnected device.

Rationale:

This setting prevents an organization's files from being stored locally, thus limiting data loss issues if the device is lost or stolen.

NOTE: The Google Drive desktop application has its own way of handling "Offline" files and does not obey the Drive and Doc > Offline > Control offline access using divide policies setting. Not allowing Google Drive for desktop on the device will prevent this channel.

Impact:

The end user will not be able to use Google Drive for desktop and its convenient integration into the Windows file explorer.

Audit:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Google Drive for desktop
- 7. Ensure Allow Google Drive for desktop in your organization is unchecked

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Google Drive for desktop
- $7. \ \ \textbf{Set} \ \textbf{Allow} \ \ \textbf{Google} \ \ \textbf{Drive} \ \ \textbf{for desktop in your organization} \ \ \textbf{to} \ \ \textbf{unchecked}$
- 8. Select save

Default Value:

Allow Google Drive for desktop in your organization ${f iS}$ checked

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.		•	•

3.1.2.2.3 (L1) Ensure Add-Ons is disabled (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Prevent users to install Google Docs add-ons from add-ons store.

NOTE: This setting controls add-on access from outside your organization.

Rationale:

Allowing uses to install unapproved Add-Ons puts the organization at risk. If users need a specific Add-On this can be handled on a case by case basis as the need, and the add-on, is approved.

Impact:

The end user will not be able to use Google Drive for desktop and its convenient integration into the Windows file explorer.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Add-Ons
- Ensure Allow users to install Google Docs add-ons from add-ons store. is unchecked

Remediation:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Drive and Docs
- 5. Select Features and Applications
- 6. Select Add-Ons
- 7. **Set** Allow users to install Google Docs add-ons from add-ons store. **to** unchecked
- 8. Select save

Default Value:

Allow users to install Google Docs add-ons from add-ons store. ${\sf iS}$ checked

References:

CIS Controls:

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.		•	•

3.1.3 **Gmail**

Gmail settings.

3.1.3.1 User Settings

Set name formats. Enable user preferences such as themes, read receipts, and email delegation.

3.1.3.1.1 (L1) Ensure users cannot delegate access to their mailbox (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Mail delegation allows the delegate to read, send, and delete messages on their behalf. For example, a manager can delegate Gmail access to another person in their organization, such as an administrative assistant.

Rationale:

Only administrators should be able to delegate access to a user's mailboxes.

Impact:

Existing delegations will be hidden, when this feature is disabled.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under User Settings Mail delegation, ensure Let users delegate access to their mailbox to other users in the domain is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under User Settings Mail delegation, **Set** Let users delegate access to their mailbox to other users in the domain **to** unchecked
- 6. Select save

Default Value:

Let users delegate access to their mailbox to other users in the domain $\dot{\mathsf{IS}}$ unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.3.1.2 (L1) Ensure offline access to Gmail is disabled (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Disables the user's ability to utilize various Gmail functions (read, write, search, delete, and label email messages) while not connected to the internet.

Rationale:

Prevents the organization's data (user's email) from being copied to remote computers.

Impact:

Users will need internet access to use Gmail.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Gmail
- 4. Select User Settings
- 5. Under Gmail web offline
- 6. Ensure Enable Gmail web offline is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Gmail
- 4. Select User Settings
- 5. SelectGmail web offline
- 6. Set Enable Gmail web offline to unchecked
- 7. Select save

Default Value:

Enable Gmail web offline is unchecked

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.		•	•

3.1.3.2 Authenticate email

Set up email authentication (DKIM).

3.1.3.2.1 (L1) Ensure that DKIM is enabled for all mail enabled domains (Manual)

Profile Applicability:

Enterprise Level 1

Description:

DKIM adds an encrypted signature to the header of all outgoing messages. Email servers that get signed messages use DKIM to decrypt the message header, and verify the message was not changed after it was sent.

Rationale:

Spoofing is a common unauthorized use of email, so some email servers require DKIM to prevent email spoofing.

Impact:

There should be no impact of setting up DKIM however, organizations should ensure appropriate setup to ensure continuous mail-flow.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Authenticate email, ensure a DKIM record exists for each mail enabled domain

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Authenticate email, select Generate new record
- 6. Under select DKIM key bit length, select the appropriate key bit length 2048 is recommended if supported
- 7. Under Prefix selector (optional), enter the appropriate prefix selector
- 8. Use the text at TXT record value to update the DNS record at your domain host
- 9. Select Start Authentication

Defau	It V	′al	ue:
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None

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.5 Implement DMARC To lower the chance of spoofed or modified emails from valid domains, implement DMARC policy and verification, starting with implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail (DKIM) standards.		•	•
v7	7.8 Implement DMARC and Enable Receiver-Side Verification To lower the chance of spoofed or modified emails from valid domains, implement Domain-based Message Authentication, Reporting and Conformance (DMARC) policy and verification, starting by implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail(DKIM) standards.		•	•

3.1.3.2.2 (L1) Ensure the SPF record is configured for all mail enabled domains (Manual)

Profile Applicability:

Enterprise Level 1

Description:

For all the email domains configured in Google Workspace, a corresponding Sender Policy Framework (SPF) record should be created.

NOTE: There are a number of ways SPF can be configured, this document presents a most basic method. For more information on setting up SPF for Google Workspace please refer to the Google documentation.

- How SPF protects against spoofing and spam
- Define your SPF record—Basic setup

Rationale:

SPF records allow Gmail and other mail systems to know where messages from your domains are allowed to originate. This information can be used by that system to determine how to treat the message based on if it is being spoofed or is valid.

Impact:

There should be minimal impact of setting up SPF records however, organizations should ensure proper SPF record setup as email could be flagged as spam if SPF is not set up appropriately.

Audit:

Check the DNS records for each domain.

- Use a Domain Name System (DNS) lookup tool to review the current configuration for your domain (DNS Records). This information can be discovered in a variety of ways:
 - Reviewing the DNS Record information at your domain registrar (GoDaddy, etc.)
 - o Using an OS based nslookup tool on your workstation OS
 - Using Google **Dig** tool available from the Google Admin Toolbox site (Link: **Dig**)
- 2. Using the chosen tool, enter your email domain name (ex. domain1.com)
- 3. In the results displayed, ensure that a TXT Record with the value of v=spf1 include:_spf.google.com ~all exists and designates Google Gmail as a authorized sender.

Remediation:

Configure the DNS record for each domain.

• If all email in your domain is sent from and received by Google Gmail, add the following TXT record for each domain:

v=spf1 include:_spf.google.com ~all

NOTE: This will likely need to be configured at your domain registrar (Godaddy, etc.).

Default Value:

None

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.5 Implement DMARC To lower the chance of spoofed or modified emails from valid domains, implement DMARC policy and verification, starting with implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail (DKIM) standards.		•	•
v7	7.8 Implement DMARC and Enable Receiver-Side Verification To lower the chance of spoofed or modified emails from valid domains, implement Domain-based Message Authentication, Reporting and Conformance (DMARC) policy and verification, starting by implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail(DKIM) standards.		•	•

3.1.3.2.3 (L1) Ensure the DMARC record is configured for all mail enabled domains (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

For all email domains configured in Google Workspace, a corresponding Domain-Based Message Authentication, Reporting and Conformance (DMARC) record should be created.

NOTE: There are a number of ways DMARC can be configured, this document presents a most basic method. For more information on setting up DMARC for Google Workspace please refer to the Google documentation.

- Help prevent spoofing and spam with DMARC
- Tutorial: Recommended DMARC rollout

Rationale:

DMARC works with Sender Policy Framework (SPF) and Domain Keys Identified Mail (DKIM) to authenticate mail senders and ensure that destination email systems trust messages sent from your domain. Spammers can spoof your domain or organization to send fake messages that impersonate your organization. DMARC tells receiving mail servers what to do when they get a message that appears to be from your organization, but doesn't pass authentication checks, or doesn't meet the authentication requirements in your DMARC policy record. Messages that aren't authenticated might be impersonating your organization, or might be sent from unauthorized servers.

Impact:

There should be minimal impact of setting up DMARC records however, organizations should ensure proper DMARC record setup as email could be flagged as spam if DMARC is not set up appropriately.

Audit:

Check the DNS records for each domain.

- Use a Domain Name System (DNS) lookup tool to review the current configuration for your domain (DNS Records). This information can be discovered in a variety of ways:
 - Reviewing the DNS Record information at your domain registrar (GoDaddy, etc.)
 - o Using an OS based nslookup tool on your workstation OS

Preferred: Using Google **Dig** tool available from the Google Admin Toolbox site (Link: Dig)

- 2. Using the chosen tool, enter your email domain name (ex. domain1.com)
- 3. In the results displayed, ensure that a TXT Record with the value of v=DMARC1; p=none; rua=mailto:<report@domain1.com> exists. This designates Google Gmail as an authorized sender.

NOTE: The **p=none** sets DMARC to non-enforcing. This is a relaxed DMARC policy that lets you start getting reports without risking messages from your domain being rejected or marked as spam by receiving servers. Start with a none policy that only monitors email flow, and then eventually change to a policy that rejects all unauthenticated messages (p=reject).

NOTE: The **rua=mailto:** <u>report@domain1.com</u> entry is optional but setting it to a valid email address is recommended. RUA reports provide a comprehensive view of all of a domain's traffic. At a minimum, organizations should configure their DMARC record to receive RUA reports.

The Difference in DMARC Reports: RUA and RUF

Remediation:

Configure the DNS record for each domain.

1. If all email in your domain is sent from and received by Google Gmail, add the following TXT record for the domain:

v=DMARC1; p=none; rua=mailto:<report@domain1.com>

NOTE: This will likely need to be configured at your domain registrar (Godaddy, etc.).

Default Value:

None

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.5 Implement DMARC To lower the chance of spoofed or modified emails from valid domains, implement DMARC policy and verification, starting with implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail (DKIM) standards.		•	•
v7	7.8 Implement DMARC and Enable Receiver-Side Verification To lower the chance of spoofed or modified emails from valid domains, implement Domain-based Message Authentication, Reporting and Conformance (DMARC) policy and verification, starting by implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail(DKIM) standards.		•	•

3.1.3.3 Manage Quarantines

Create, modify, or remove email quarantines.

3.1.3.3.1 (L1) Enable quarantine admin notifications for Gmail (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Quarantines can help prevent spam, minimize data loss, and protect confidential information. They can also help moderate message attachments so users don't send, open, or click something they shouldn't.

Rationale:

Admins should be notified periodically when messages are quarantined so they can take the appropriate actions.

Impact:

Admins will begin receiving quarantine notifications as emails are quarantined.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Manage quarantines, ensure each quarantine has Notify periodically when messages are quarantined is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Manage quarantines, set Notify periodically when messages are quarantined to checked

As required, give appropriate users the Access Admin Quarantine and\or Access restricted quarantine roles

Default	t Value:					
Notify	periodically	when	messages	are	quarantined $i\mathbf{S}$ unchecked	

3.1.3.4 Safety

Configure email and spam safety features.

3.1.3.4.1 Attachments

Additional policies to protect against malware in emails.

3.1.3.4.1.1 (L1) Ensure protection against encrypted attachments from untrusted senders is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As a Google Workspace administrator, you can protect incoming mail against phishing and harmful software (malware). You can also choose what action to take based on the type of threat detected.

Rationale:

You should protect your users from potentially malicious attachments.

Impact:

Users will be warned when they receive an encrypted attachment from an untrusted sender.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, ensure Protect against encrypted attachments from untrusted senders is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, **Set** Protect against encrypted attachments from untrusted senders **to** checked
- 6. Select Save

Default Value:

Protect against encrypted attachments from untrusted senders $i\mathbf{S}$ checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.6 <u>Block Unnecessary File Types</u> Block unnecessary file types attempting to enter the enterprise's email gateway.		•	•
v7	7.9 <u>Block Unnecessary File Types</u> Block all e-mail attachments entering the organization's e-mail gateway if the file types are unnecessary for the organization's business.		•	•

3.1.3.4.1.2 (L1) Ensure protection against attachments with scripts from untrusted senders is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As a Google Workspace administrator, you can protect incoming mail against phishing and harmful software (malware). You can also choose what action to take based on the type of threat detected.

Rationale:

You should protect your users from potentially malicious attachments.

Impact:

Users will be warned when they receive an attachments with scripts from an untrusted sender.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, ensure Protect against attachments with scripts from untrusted senders is checked

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, **Set** Protect against attachments with scripts from untrusted senders **to** checked
- 6. Select save

Default Value:

Protect against attachments with scripts from untrusted senders is enabled ${\sf iS}$ checked

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.6 <u>Block Unnecessary File Types</u> Block unnecessary file types attempting to enter the enterprise's email gateway.		•	•
v7	7.9 <u>Block Unnecessary File Types</u> Block all e-mail attachments entering the organization's e-mail gateway if the file types are unnecessary for the organization's business.		•	•

3.1.3.4.1.3 (L1) Ensure protection against anomalous attachment types in emails is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As a Google Workspace administrator, you can protect incoming mail against phishing and harmful software (malware). You can also choose what action to take based on the type of threat detected.

Rationale:

You should protect your users from potentially malicious attachments.

Impact:

Users will be warned when they receive an anomalous attachment.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, ensure Protect against anomalous attachment types in emails is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Attachments, \mathbf{Set} Protect against anomalous attachment types in emails $\mathbf{t0}$ checked
- 6. Select save

Default Value:

Protect against anomalous attachment types in emails ${\sf iS}$ Unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.6 <u>Block Unnecessary File Types</u> Block unnecessary file types attempting to enter the enterprise's email gateway.		•	•
v7	7.9 <u>Block Unnecessary File Types</u> Block all e-mail attachments entering the organization's e-mail gateway if the file types are unnecessary for the organization's business.		•	•

3.1.3.4.2 Links and external images

Additional settings to prevent email phishing due to links and ex	ternal images.

3.1.3.4.2.1 (L1) Ensure link identification behind shortened URLs is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Identify links behind short URLs, and display a warning when you click links to untrusted domains.

Rationale:

You should protect your users from potentially malicious links.

Impact:

Users will be warned when they click links to untrusted domains.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Links and external images, ensure Identify links behind shortened URLs is checked

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Links and external images, **Set** Identify links behind shortened URLs **to** checked
- 6. Select save

Default Value:

Identify links behind shortened URLs is checked

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.		•	•

3.1.3.4.2.2 (L1) Ensure scan linked images for malicious content is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Scan linked images for malicious content, and display a warning when you click links to untrusted domains.

Rationale:

You should protect your users from potentially malicious links.

Impact:

Users will be warned when they click links to untrusted domains.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- Under Safety Links and external images, ensure Scan linked images is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Links and external images, Set Scan linked images to checked
- 6. Select Save

Default Value:

Scan linked images is checked

3.1.3.4.2.3 (L1) Ensure warning prompt is shown for any click on links to untrusted domains (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Display a warning when you click links to untrusted domains.

Rationale:

You should protect your users from potentially malicious links.

Impact:

Users will be warned when they click links to untrusted domains.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Links and external images, ensure Show warning prompt for any click on links to untrusted domains is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Links and external images, set Show warning prompt for any click on links to untrusted domains is checked
- 6. Select save

Default Value:

Show warning prompt for any click on links to untrusted domains $i\mathbf{S}$ checked

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.		•	•

3.1.3.4.3 Spoofing and authentication

Additional settings to reduce phishing attacks due to spoofing and unauthenticated emails.

3.1.3.4.3.1 (L1) Ensure protection against domain spoofing based on similar domain names is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Moves domain spoofing emails to spam folder.

Rationale:

You should protect your users from domain spoofing emails.

Impact:

Domain spoofed emails will be moved to a user's spam folder.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, ensure Protect against domain spoofing based on similar domain names is checked
- 6. Ensure Action is Move email to spam

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, **Set** Protect against domain spoofing based on similar domain names **to** checked
- 6. Set Action to Move email to spam
- 7. Select save

Default Value:

- ullet Protect against domain spoofing based on similar domain names ${f iS}$ checked
- Action is Keep email in inbox and show warning (default)

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.		•	•

3.1.3.4.3.2 (L1) Ensure protection against spoofing of employee names is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Moves employee spoofing emails to spam folder.

Rationale:

You should protect your users from employee spoofing emails.

Impact:

Employee spoofed emails will be moved to a user's spam folder.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, ensure Protect against spoofing of employee names is checked
- 6. Ensure Action is Move email to spam

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, **Set** Protect against spoofing of employee names **to** checked
- 6. Set Action to Move email to spam
- 7. Select save

Default Value:

- Protect against spoofing of employee names = checked
- Action = Keep email in inbox and show warning (default)

3.1.3.4.3.3 (L1) Ensure protection against inbound emails spoofing your domain is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Moves inbound emails spoofing your domain to spam folder.

Rationale:

You should protect your users from inbound company domain spoofing emails.

Impact:

Inbound company domain spoofed emails will be moved to a user's spam folder.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, ensure Protect against inbound emails spoofing your domain is checked
- 6. Ensure Action is Move email to spam

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, **Set** Protect against inbound emails spoofing your domain **to** checked
- 6. Set Action to Move email to spam
- 7. Select save

Default Value:

- Protect against inbound emails spoofing your domain = checked
- Action = Keep email in inbox and show warning (default)

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.		•	•

3.1.3.4.3.4 (L1) Ensure protection against any unauthenticated emails is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Displays a warning when any message is not authenticated (SPF or DKIM).

Rationale:

You should protect your users from any emails that aren't authenticated (SPF or DKIM)

Impact:

Emails that aren't authenticated (SPF or DKIM) display a warning message to the recipient.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, ensure Protect against any unauthenticated emails is checked

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, **Set** Protect against any unauthenticated emails **to** checked
- 6. Select save

Default Value:

Protect against any unauthenticated emails = unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.5 Implement DMARC To lower the chance of spoofed or modified emails from valid domains, implement DMARC policy and verification, starting with implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail (DKIM) standards.		•	•
v7	7.8 Implement DMARC and Enable Receiver-Side Verification To lower the chance of spoofed or modified emails from valid domains, implement Domain-based Message Authentication, Reporting and Conformance (DMARC) policy and verification, starting by implementing the Sender Policy Framework (SPF) and the DomainKeys Identified Mail(DKIM) standards.		•	•

3.1.3.4.3.5 (L1) Ensure groups are protected from inbound emails spoofing your domain (Manual)

Profile Applicability:

Enterprise Level 1

Description:

If a group receives an email that is spoofing your domain it is sent to the spam folder.

Rationale:

You should protect your groups from any emails that spoofing your domain.

Impact:

Emails that are spoofing your domain and are received by a group are sent to the spam folder.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, ensure Protect your Groups from inbound emails spoofing your domain is checked
- 6. Ensure Action is set to Move email to spam

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under Safety Spoofing and authentication, Set Protect your Groups from inbound emails spoofing your domain to checked
- 6. Set Action to Move email to spam
- 7. Select save

Default Value:

- Protect against any unauthenticated emails = unchecked
- Action = Keep email in inbox and display warning (default)

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.		•	•

3.1.3.5 End User Access

Configure end user access features.

3.1.3.5.1 (L2) Ensure POP and IMAP access is disabled for all users (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

POP and IMAP may allow users to access Gmail using legacy or unapproved email clients that do not support modern authentication mechanisms, such as multifactor authentication.

Rationale:

Disabling POP and IMAP prevents use of legacy and unapproved email clients with weaker authentication mechanisms that would increase the risk of email account credential compromise.

Impact:

If you have Apple iOS or Android device users in your organization and you turn IMAP off, let them know that they're no longer syncing Google Workspace mail to the iOS or Android Mail app. They might not get a notification on their device. Additionally, new users can't manually add the Google Account they use for work or school to the device.

If your Google Workspace users want to use desktop clients, such as Microsoft Outlook and Apple Mail, to access their Google Workspace mail, you need to enable POP or IMAP access in the Google Admin console. You can enable access for everyone in your organization or only for users in specific organizational units.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access POP and IMAP Access
- 6. Ensure Enable IMAP access for all users is unchecked
- 7. Ensure Enable POP access for all users is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access POP and IMAP Access
- 6. Set Enable IMAP access for all users to unchecked
- 7. Set Enable POP access for all users to unchecked
- 8. Select save

Default Value:

- Enable IMAP access for all users **iS** checked
- Enable POP access for all users is checked

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	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.		•	•

3.1.3.5.2 (L1) Ensure automatic forwarding options are disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

You should disable automatic forwarding to prevent users from auto-forwarding mail.

Rationale:

In the event that an attacker gains control of an end-user account they could create rules to ex-filtrate data from your environment.

Impact:

Care should be taken before implementation to ensure there is no business need for case-by-case auto-forwarding. Disabling auto-forwarding to remote domains will affect all users and in an organization.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access Automatic forwarding, ensure Allow users to automatically forward incoming email to another address is unchecked

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access Automatic forwarding, **Set** Allow users to automatically forward incoming email to another address **tO** unchecked
- 6. Select save

Default Value:

Allow users to automatically forward incoming email to another address $\dot{\textbf{IS}}$ checked

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.		•	•

3.1.3.5.3 (L1) Ensure per-user outbound gateways is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

A per-user outbound gateway is a mail server, other than the Google Workspace mail servers, that delivers outgoing mail for a user in your domain.

Rationale:

Mail sent via external SMTP will circumvent your outbound gateway

Impact:

Care should be taken before implementation to ensure there is no business need for mail sent via external SMTP gateway.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access Allow per-user outbound gateways, ensure Allow users to send mail through an external SMTP server when configuring a "from" address hosted outside your email domain is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Under End User Access Allow per-user outbound gateways, **Set** Allow users to send mail through an external SMTP server when configuring a "from" address hosted outside your email domain **to** unchecked
- 6. Select save

Default Value:

Allow users to send mail through an external SMTP server when configuring a "from" address hosted outside your email domain ${\sf iS}$ unchecked

3.1.3.5.4 (L1) Ensure external recipient warnings are enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Gmail adds an image or colored border to external addresses.

Rationale:

As an admin for your organization, you can turn alerts on or off for messages that include external recipients (people with email addresses outside of your organization). These alerts help people avoid unintentional replies, and remind them to treat external messages with caution.

Impact:

When this setting is on, Gmail shows warnings (colored boarder) when:

- An email thread includes external recipients (not available on iOS).
- Replying to a message from an external recipient.
- Composing a new message to an external recipient (not available on iOS).

Gmail doesn't show a warning if the external recipient is in your organization's Directory, personal Contacts, or other Contacts. Warnings aren't displayed for secondary domain or domain alias addresses.

Audit:

To verify Ensure external recipient warnings are enabled, use the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select End User Access
- **6.** Under Warn for external recipients, **ensure** Highlight any external recipients in a conversation. Warn users before they reply to email with external recipients who aren't in their contacts. **is** ON

Remediation:

To configure external recipient warnings are enabled, use the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select End User Access
- 6. Select Warn for external recipients
- 7. **Set** Highlight any external recipients in a conversation. Warn users before they reply to email with external recipients who aren't in their contacts. **to** checked
- 8. Select Save

Default Value:

Highlight any external recipients in a conversation. Warn users before they reply to email with external recipients who aren't in their contacts. $\dot{\textbf{IS}}$ ON

3.1.3.6 Spam, Phishing and Malware

Configure spam, phishing and malware features.

3.1.3.6.1 (L1) Ensure enhanced pre-delivery message scanning is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Enables improved detection of suspicious content prior to delivery.

Rationale:

As an administrator, you can increase Gmail's ability to identify suspicious content with enhanced pre-delivery message scanning. Typically, when Gmail identifies a possible phishing message, a warning is displayed and the message might be moved to spam.

Impact:

With the Enhanced pre-delivery message scanning option, when Gmail detects suspicious content, message delivery is slightly delayed so that Gmail can do additional security checks on the message.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Spam, phishing, and malware
- 6. Ensure Enhanced pre-delivery message scanning. is ON

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Spam, phishing, and malware
- 6. Select Enhanced pre-delivery message scanning.
- 7. Set Enables improved detection of suspicious content prior to delivery to checked
- 8. Select save

Default Value:

Enhanced pre-delivery message scanning. ${\sf iS}$ ON

Controls Version	Control	IG 1	IG 2	IG 3
v8	9.7 <u>Deploy and Maintain Email Server Anti-Malware Protections</u> Deploy and maintain email server anti-malware protections, such as attachment scanning and/or sandboxing.			•
v7	7.10 <u>Sandbox All Email Attachments</u> Use sandboxing to analyze and block inbound email attachments with malicious behavior.			•

3.1.3.6.2 (L1) Ensure spam filters are not bypased for internal senders (Manual)

Profile Applicability:

Enterprise Level 1

Description:

You can configure your advanced Gmail settings to bypass, or not bypass, spam filters for messages received from internal senders.

Rationale:

Turning off this setting reduces the risk of spoofing and phishing/whaling.

Impact:

Your users will be better protected by filtering their email for spam and minimizing the chances for spoofing and phishing/whaling attacks.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Spam, phishing, and malware
- 6. Under spam, select Configure
- Ensure Bypass spam filters for messages received from internal senders.
 is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Spam, phishing, and malware
- 6. Under Spam, select Configure
- 7. **Set** Bypass spam filters for messages received from internal senders. **to**
- 8. Select Save

Defaul	t Valu	ıe:							
Bypass	spam	filters	for	messages	received	from	internal	senders.	is checked

3.1.3.7 Compliance

Configure compliance features.

Note on Content Compliance

Google Workspace has extensive capabilities for monitoring Gmail content compliance (incoming and outgoing mail). The use of these capabilities is very organizationally specific, but admins are encouraged to review the capabilities in this area and setup appropriate checks for your organization.

Google documentation for setting up rules for advanced email content filtering is **here**.

3.1.3.7.1 (L1) Ensure comprehensive mail storage is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Comprehensive mail storage ensures messages sent by other core services appear in users' sent folders and are therefore accessible to Vault.

Rationale:

As an administrator, you can ensure that a copy of all sent or received messages in your domain—including messages sent or received by non-Gmail mailboxes—is stored in the associated users' Gmail mailboxes.

Impact:

There are some important considerations to carefully review before enabling comprehensive mail storage:

- You should not enable comprehensive mail storage if you have compliance routing rules that change the recipient (and don't want the original recipient to receive a copy of the email).
- When you have the SMTP Relay service enabled, user mailboxes will keep a
 copy of the message in the sent folder (for example, when sending mail from a
 scanner) if comprehensive mail storage is enabled. This might cause accounts to
 exceed storage limits if your account's edition has storage limits. Compare
 editions
- You should enable comprehensive mail storage if you only use Gmail for the Vault feature and forward email to your on-premise mail server or other email provider.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Compliance
- 6. Under Comprehensive mail storage, ensure Ensure that a copy of all sent and received mail is stored in associated users' mailboxes is ON

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Gmail
- 5. Select Compliance
- 6. Select Comprehensive mail storage
- 7. Set Ensure that a copy of all sent and received mail is stored in associated users' mailboxes to checked
- 8. Select save

Default Value:

Copy of all sent and received mail is stored in associated users' mailboxes $\dot{\mathsf{IS}}$ OFF

3.1.4 Google Chat and classic Hangouts

Google Chat and classic Hangouts settings.

3.1.4.1 Chat File Sharing

Control how users can share files to people inside and outside of the domain.	

3.1.4.1.1 (L1) Ensure external filesharing in Google Chat and Hangouts is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control how files are shared externally in Google Chat and Hangouts.

Rationale:

Files often contain confidential information, and some organizations, particularly in regulated industries, need to control the flow of this information within and outside of their organization.

Impact:

Users will not be able to share files via chat externally.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat File Sharing
- 5. Under Setting, verify External filesharing is set to No files

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat File Sharing
- 5. Under Setting, set External filesharing to No files
- 6. Select save

Default Value:

External filesharing is Allow all files

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.		•	•

3.1.4.1.2 (L2) Ensure internal filesharing in Google Chat and Hangouts is disabled (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Control how files are shared internally in Google Chat and Hangouts.

Rationale:

Files often contain confidential information, and some organizations, particularly in regulated industries, need to control the flow of this information within and outside of their organization.

Impact:

Users will not be able to share files via chat internally.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat File Sharing
- 5. Under Setting, verify Internal filesharing is set to No files

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat File Sharing
- 5. Under Setting, set Internal filesharing to No files
- 6. Select save

Default Value:

Internal filesharing is Allow all files

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.		•	•

3.1.4.2 External Chat Settings

Control how users can chat with people outside the domain.

3.1.4.2.1 (L1) Ensure warn users in Google Chat and Hangouts is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

This setting lets users know when they're chatting with someone outside of your organization.

NOTE: This setting applies only to classic Hangouts.

Rationale:

Providing a user warning that they are starting a chat with an external user will hopefully remind them to not share company sensitive information.

Impact:

This setting must be Off for external users to join a group conversation by link.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Chat Settings
- 5. Select Warn users
- 6. Verify Warn classic Hangouts users before sending external messages is on

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Chat Settings
- 5. Select Warn users
- 6. Set Warn classic Hangouts users before sending external messages to ON
- 7. Select save

Default Value:

Warn classic Hangouts users before sending external messages $\dot{\textbf{IS}}$ ON

3.1.4.2.2 (L1) Ensure Google Chat externally is restricted to allowed domains (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control how users chat with people outside of your organization. If you allow your users to chat externally, you can also allow them to create and join spaces with people outside your organization.

Rationale:

Restricting external chat to only approved domains potentially limits the spread of company information.

Impact:

Users will not be able to chat with users in any external domain, only approved domains. This will require some admin-level approval and allowlist maintenance.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Chat Settings
- 5. Select Chat externally
- 6. Verify Allow users to send messages outside <company> is on
- 7. Verify Only allow this for allowlisted domains is checked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Chat Settings
- 5. Select Chat externally
- 6. Set Allow users to send messages outside <company> to ON
- 7. Set Only allow this for allowlisted domains to checked
- 8. Select save

Default Value:

- ullet Allow users to send messages outside <company> is set to oN
- ullet Only allow this for allowlisted domains $i\mathbf{S}$ unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.4.3 External Spaces

Settings for External Spaces.

3.1.4.3.1 (L1) Ensure external spaces in Google Chat and Hangouts are restricted (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control whether users can create or join spaces within your organization that include external people outside of your organization.

Rationale:

Restricting external spaces to only approved domains potentially limits the spread of company information.

Impact:

Users with this setting turned off or who have editions that don't support external spaces can't create these spaces, but they can join existing spaces with external people

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Spaces
- 5. Under Setting, verify Allow users at <domain> to create and join spaces with people outside their organization is ON
- 6. Verify only allow users to add people from allowlisted domains is checked

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select External Spaces
- 5. Under Setting, set Allow users at <domain> to create and join spaces with people outside their organization to ON
- 6. Set Only allow users to add people from allowlisted domains to checked
- 7. Select save

Default Value:

- \bullet Allow users at <company> to create and join spaces with people outside their organization $\dot{\textbf{IS}}$ ON
- ullet Only allow users to add people from allowlisted domains $i\mathbf{S}$ unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.4.4 Chat Apps

Settings for Chat Apps.

3.1.4.4.1 (L1) Ensure allow users to install Chat apps is disabled (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Control the use of Chat apps in spaces or direct messages to connect to services in Google Chat and look up information, schedule meetings, or complete tasks. Apps are accounts created by Google, users in your organization, or third parties.

Rationale:

When a user interacts with an app in Chat, the app can see the user's email address, avatar, other basic user information, user locale, timezone, and interaction information. The app can also see the basic user information of other people in the chat, but it can't see their email address or avatar unless they also interact directly with the app.

Chat apps that you install from the Google Workspace Marketplace can be made by developers from outside of your organization.

Using these Chat app need to be carefully controlled (vetted and approved) since a malicious Chat app could allow the exfiltration of company proprietary information.

Impact:

By default users will not be able to install Chat apps.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat apps
- 5. Under Chat apps access settings, verify Allow users to install Chat apps is $_{\mbox{\scriptsize OFF}}$

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- $\textbf{3. Select} \ \texttt{Google Chat and classic Hangouts}$
- 4. Select Chat apps
- 5. Under Chat apps access settings, set Allow users to install Chat apps to OFF
- 6. Select save

Default Value:

Allow users to install Chat apps $\dot{\textbf{IS}}$ ON

References:

1. https://developers.google.com/chat/concepts/apps

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	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.		•	•

3.1.4.4.2 (L1) Ensure allow users to add and use incoming webhooks is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Allow users to configure incoming webhooks and developers to call incoming webhooks to post content. Incoming webhooks let you send asynchronous messages into Google Chat from applications that aren't Chat apps.

Rationale:

Webhook usage should be carefully controlled (vetted and approved) since a malicious application could send bogus information to exposed webhooks and ultimately these users.

Impact:

By default users will have exposed webhooks.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat apps
- 5. Under Chat apps access settings, Verify Allow users to add and use incoming webhooks iS OFF

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Chat and classic Hangouts
- 4. Select Chat apps
- 5. Under Chat apps access settings, Set Allow users to add and use incoming webbooks to OFF

Default Value:

Allow users to add and use incoming webhooks is ON

References:

1. https://developers.google.com/chat/concepts/apps

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.		•	•

3.1.5 Google Meet

The CIS Google Workspace Community does not have any specific security recommendations with regard to Google Meet, due to its usage being very organizationally specific.

That being said, are some items that Admins should consider when deploying Google Meet:

- Who should be allowed to create meetings?
- Example: In an education environment possibly configure that only Teachers can be allowed to create a meeting and Students only attend.
- Who can join a meeting?
- Example: In an education environment possibly Teachers can attend any meeting (internally or externally created) and Students can only attend internally created meetings.

Settings you may want to review are:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Google Workspace
- 3. Select Apps
- 4. Select Google Meet
- 5. Select Meet video settings
 - o Select Recording-Let people record their meetings.
 - o Select Stream-Let people stream their meetings.
- 6. Select Meet safety settings
 - o Select Domain-Who can join meetings created by your organization
 - o Select Access-Which meetings users in the organization can join
 - o **Select** Joining-How users join a meeting (quick access)
 - o **Select** Chat-Who can send in-call chat messages
 - o Select Present-Who can share their screens in calls
 - o Select Host management- `Default host management

NOTE: To configure this properly will likely require creating different Organizational Units (OUs) to segment users properly and allow different configuration settings to be applied. An informative video on this topic can be found here.

3.1.6 Groups for Business

Settings for Groups for Business.

3.1.6.1 (L1) Ensure accessing groups from outside this organization is set to private (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Choose whether people outside your organization can access your groups. Group owners can further restrict access as needed.

Rationale:

Who can externally view groups internal to the organization should be carefully controlled and their access vetted as needed.

Impact:

No one outside your organization can view or search for your groups. External users can email the group if group settings allow.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Sharing options
- $\pmb{6}$. \pmb{Verify} Accessing groups from outside this organization \pmb{is} Private

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Sharing options
- $\pmb{6}$. $\pmb{\mathsf{Set}}$ Accessing groups from outside this organization $\pmb{\mathsf{to}}$ Private
- 7. Select save

Default Value:

Accessing groups from outside this organization is Private

References:

1. https://apps.google.com/supportwidget/articlehome?hl=en&article_url=https%3A https://apps.google.com/supportwidget/articlehome?hl=en&article_url=https%3A https://apps.google.com%2Fa%2Fanswer%2F10308022%3Fhl%3Den&product_context=a

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.6.2 (L1) Ensure creating groups is restricted (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Control who is allowed to create Groups in your organization and if they can have external members.

Rationale:

The organization should have some control over the organizational groups created and the purpose they are for.

Impact:

In a large organization, this may cause too much burden on administrators.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Creating groups
- 6. Verify Only organization admins can create groups is selected
- 7. Verify Group owners can allow external members Organization admins can always add external members is unchecked
- 8. Verify Group owners can allow incoming email from outside the organization is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Creating groups
- 6. Select Only organization admins can create groups
- 7. **Set** Group owners can allow external members Organization admins can always add external members **to** unchecked
- 8. Set Group owners can allow incoming email from outside the organization to unchecked
- 9. Select save

Default Value:

- Anyone in the organization can create groups is selected
- ullet Group owners can allow external members Organization admins can always add external members iS unchecked
- ullet Group owners can allow incoming email from outside the organization is unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.6.3 (L1) Ensure default for permission to view conversations is restricted (Manual)

Profile Applicability:

Enterprise Level 1

Description:

By default, only allow group members to view group conversations.

Rationale:

Conversation viewing can always be expanded by exception for certain groups as needed (Need to know), but by default be restricted.

Impact:

No practical impact, since Group members can view conversations in the Group.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Sharing options
- $\pmb{6}$. \pmb{Verify} Default for permission to view conversations \pmb{is} All group members

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select Groups for Business
- 5. Select Sharing options
- 6. Set Default for permission to view conversations to All group members
- 7. Select save

Default Value:

Default for permission to view conversations is All organization users

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

3.1.7 Sites

Settings for Sites.

3.1.7.1 (L1) Ensure service status for Google Sites is set to off (Manual)

Profile Applicability:

Enterprise Level 1

Description:

By default turn off Google Sites for all users.

Rationale:

There is really no reason for every user within an organization to have access to Google Sites. If this capability is needed, it can be enabled and configured for those users and groups by exception as required by the organization to meet specific needs.

Impact:

Users will not be have access to Google 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 Apps
- 3. Select Google Workspace
- 4. Select sites
- 5. Select Service status
- 6. Verify Service status is OFF for everyone

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select sites
- 5. Select Service status
- 6. Set Service status to OFF for everyone
- 7. Select save

Default Value:

Service status is ON for everyone

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.		•	•

3.1.8 Additional Google services

Settings for Additional Google services.

3.1.8.1 (L1) Ensure access to external Google Groups is OFF for Everyone (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Control whether users in your organization can access external groups from their Google Workspace account. External groups are created outside your organization and might include a public community group or a group for a club a user belongs to.

Control access to external groups by turning on or off the Google Groups additional service — a legacy service in your Admin console that does only one thing: It allows or blocks users from accessing external groups from their Google Workspace account.

NOTE: This service has no effect on your organization's internal groups.

Rationale:

In general, most of the organization's personnel do not need to assess external groups. They can be allowed by exception as needed by the business.

Impact:

Users can't access external groups from their Google Workspace account. However, they do continue to receive email digests from groups they're already subscribed to when you turn off the 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 Apps
- 3. Select Google Workspace
- 4. Select `Additional Google services
- 5. Scroll down to Google Groups
- 6. Verify it is OFF for everyone

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace
- 4. Select `Additional Google services
- 5. Scroll down to Google Groups
- 6. Set it to OFF for everyone
- 7. Select Save

Default Value:

Google Groups is ON for Everyone

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	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.		•	•

3.1.9 Google Workspace Marketplace

Settings for Google Workspace Marketplace.

3.1.9.1 Settings

Manage access to apps.

3.1.9.1.1 (L1) Ensure users access to Google Workspace Marketplace apps is restricted (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Restrict what Google Marketplace apps a user can install.

Rationale:

Users should only be allowed to install approved and vetted apps. This will limit the overall attack surface for the organization.

Impact:

Users can only install approved Google Marketplace apps. This list will have to be created and maintained.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace Marketplace apps
- 4. Select Settings
- 5. Under Manage Google Workspace Marketplace allowlist access, verify Settings to install third-party Google Workspace Marketplace apps: is set to Allow users to install and run only selected apps from the Marketplace

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Apps
- 3. Select Google Workspace Marketplace apps
- 4. Select Settings
- 5. Under Manage Google Workspace Marketplace allowlist access, Set Settings to install third-party Google Workspace Marketplace apps: to Allow users to install and run only selected apps from the Marketplace
- 6. Select Save

Default Value:

Settings to install third-party Google Workspace Marketplace apps: iS Allow users to install and run any app from the Marketplace

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

4 Security

The Security section of the Google Workspace Admin Console.

4.1 Authentication

Authentication settings.

4.1.1 2-Step Verification

Configure 2-Step Verification policies.

4.1.1.1 (L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Enforce 2-Step Verification (Multi-Factor Authentication) for all users assigned administrative roles. These include roles such as:

- Help Desk Admin
- Groups Admin
- Super Admin
- Services Admin
- User Management Admin
- Mobile Admin
- Android Admin
- Custom Admin Roles

Rationale:

Add an extra layer of security to users accounts by asking users to verify their identity when they enter a username and password. 2-Step Verification (Multi-factor authentication) requires an individual to present a minimum of two separate forms of authentication before access is granted. 2-Step Verification provides additional assurance that the individual attempting to gain access is who they claim to be. With 2-Step Verification, an attacker would need to compromise at least two different authentication mechanisms, increasing the difficulty of compromise and thus reducing the risk.

Impact:

Implementation of 2-Step Verification (multi-factor authentication) for all users in administrative roles will necessitate a change to user routine. All users in administrative roles will be required to enroll in 2-Step Verification using using phone, SMS, or an authentication application. After enrollment, use of 2-Step Verification will be required for future access to the environment.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Security and click on 2-Step Verification
- 3. Select the appropriate group with ALL ADMIN ROLES -- Create this group if needed
- 4. Under Authentication, ensure Allow users to turn on 2-Step Verification is checked
- 5. Ensure Enforcement is set to on
- 6. Ensure New user enrollment period is set to 2 weeks
- 7. Under Frequency, ensure Allow user to trust device is unchecked
- 8. Under Methods, ensure Any except verification codes via text, phone call is selected

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Security and click on 2-Step Verification
- 3. Select the appropriate group with ALL ADMIN ROLES -- Create this group if needed
- 4. Under Authentication, **Set** Allow users to turn on 2-Step Verification **to** checked
- 5. Set Enforcement to On
- 6. Set New user enrollment period is set to 2 weeks
- 7. Under Frequency, set Allow user to trust device to unchecked
- 8. Under Methods, set Any except verification codes via text, phone call to selected
- 9. Select save

Default Value:

- Allow users to turn on 2-Step Verification is checked
- Enforcement is Off
- New user enrollment period is None
- Frequency Allow user to trust device is checked
- Methods **iS** Any

Controls Version	Control	IG 1	IG 2	IG 3
v8	6.5 Require MFA for Administrative Access Require MFA for all administrative access accounts, where supported, on all enterprise assets, whether managed on-site or through a third-party provider.	•	•	•
v7	4.5 <u>Use Multifactor Authentication For All Administrative Access</u> Use multi-factor authentication and encrypted channels for all administrative account access.		•	•

4.1.1.2 (L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts (Manual)

Profile Applicability:

Enterprise Level 2

Description:

A hardware security key connects to a user's device using USB (A & C), Lightning, NFC, or Bluetooth connection. Also, many Android phones and Apple iPhones have built-in security keys accessible via Bluetooth and that can be assigned to a Google Workspace account.

The purpose of a physical security key is to provide an additional security layer to high value accounts; in the event of a compromise of a user's credentials (username and password) without the associated security key, the authentication process cannot be successfully completed.

Rationale:

The purpose of a physical security key is to provide an additional security layer to high value accounts; in the event of a compromise of a user's credentials (username and password) without the associated security key, the authentication process cannot be successfully completed.

Hardware security keys help to protect high value accounts from targeted attacks, including phishing attempts.

Adding a hardware security key requirement to your Google privileged accounts adds another layer of depth of protection greater than any other form of two-factor authentication.

Impact:

Users with hardware security keys enabled will need to have physical access to the hardware key in order complete the authentication process and this will force users to adopt a practice of making sure that the physical key is available to them at any point in time that they need to be able to log in.

If a hardware security key is lost or stolen, the impacted user can gain access to their Google account by using a backup MFA process and then remove the lost/stolen key and add another one.

If a hardware security key is stolen, the user's account is not automatically compromised as the hardware key works in conjunction with the user's account credentials (username & password).

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Security and click on Authentication
- 3. Under Authentication, select 2-Step Verification
- 4. Ensure the option to Allow users to turn on 2-Step Verification is checked
- 5. Ensure that the Enforcement option is set to either 'On' or 'On from' with a valid date present
- 6. Under Methods ensure that Only security key is selected
- 7. Under 2-Step Verification policy suspension grace period ensure that 1 day is selected
- 8. Under Security codes ensure that Don't allow users to generate security codes is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Go to Security and click on Authentication
- 3. Under Authentication, select 2-Step Verification
- 4. Select the option to Allow users to turn on 2-Step Verification
- 5. Under Enforcement, enable either 'on' or else 'on from' and configure a valid date
- 6. Under Methods, select Only security key to force the use of a security key
- 7. Under 2-Step Verification policy suspension grace period, select 1 day
- 8. Under Security codes, select Don't allow users to generate security codes
- 9. Select save

Default Value:

- Allow users to turn on 2-Step Verification is checked
- Enforcement is Off
- New user enrollment period is None
- Frequency Allow user to trust device is checked
- Methods **iS** Any

References:

1. https://support.google.com/accounts/answer/6103523?hl=En

Controls Version	Control	IG 1	IG 2	IG 3
v8	6.5 Require MFA for Administrative Access Require MFA for all administrative access accounts, where supported, on all enterprise assets, whether managed on-site or through a third-party provider.	•	•	•
v7	4.5 <u>Use Multifactor Authentication For All Administrative Access</u> Use multi-factor authentication and encrypted channels for all administrative account access.		•	•

4.1.1.3 (L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Enforce 2-Step Verification (Multi-Factor Authentication) for all users.

Rationale:

Add an extra layer of security to users accounts by asking users to verify their identity when they enter a username and password. 2-Step Verification (Multi-factor authentication) requires an individual to present a minimum of two separate forms of authentication before access is granted. 2-Step Verification provides additional assurance that the individual attempting to gain access is who they claim to be. With 2-Step Verification, an attacker would need to compromise at least two different authentication mechanisms, increasing the difficulty of compromise and thus reducing the risk.

Impact:

Implementation of 2-Step Verification (multi-factor authentication) for all users will necessitate a change to user routine. All users will be required to enroll in 2-Step Verification using phone, SMS, or an authentication application. After enrollment, use of 2-Step Verification will be required for future access to the environment.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select 2-Step Verification
- 4. Under Authentication, ensure Allow users to turn on 2-Step Verification is checked
- 5. Ensure Enforcement is set to on
- 6. Ensure New user enrollment period is set to 2 weeks
- 7. Under Frequency, ensure Allow user to trust device is not checked
- 8. Under Methods, ensure Any except verification codes via text, phone call is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select 2-Step Verification
- 4. Under Authentication, check Allow users to turn on 2-Step Verification
- 5. Set Enforcement to On
- 6. Set New user enrollment period to 2 weeks
- 7. Under Frequency, uncheck Allow user to trust device
- 8. Under Methods, select Any except verification codes via text, phone call
- 9. Select Save

Default Value:

- Allow users to turn on 2-Step Verification is checked
- Enforcement is Off
- New user enrollment period is None
- Frequency Allow user to trust device **iS** checked
- Methods **iS** Any

Controls Version	Control	IG 1	IG 2	IG 3
v8	6.3 Require MFA for Externally-Exposed Applications Require all externally-exposed enterprise or third-party applications to enforce MFA, where supported. Enforcing MFA through a directory service or SSO provider is a satisfactory implementation of this Safeguard.		•	•
v7	16.3 Require Multi-factor Authentication Require multi-factor authentication for all user accounts, on all systems, whether managed onsite or by a third-party provider.		•	•

4.1.2 Account Recovery

Configure account-recovery policies.

4.1.2.1 (L1) Ensure Super Admin account recovery is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

This option allows Super Admin users to recover access to their accounts if their password has been forgotten.

The option is not available if either Single Sign On or Password Sync is in use.

Rationale:

Allowing Super Admins to recover access to their accounts when they have forgotten their passwords reduces the number of support tickets generated by users, and reduces the amount of down time spent waiting on the account recovery process to initiate and complete.

Impact:

The potential impact to Super Admins being allowed to recover their accounts includes:

- 1. The Super Admins are now empowered to reset their passwords.
- 2. The Super Admins will no longer need to call a helpdesk or open a support ticket to regain access to their account.

An organization that allows users to recover their account will realize less time spent by administrative staff working on these tasks.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Security.
- 3. Under Account recovery select Super admin account recovery.
- 4. Ensure Allow super admins to recover their account is checked.

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Security.
- 3. Under Account recovery select Super admin account recovery.
- 4. Set Allow super admins to recover their account $to\ \mbox{checked}$
- 5. Click Save

Default Value:

Allow super admins to recover their account is OFF

4.1.2.2 (L1) Ensure User account recovery is enabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

This option allows non-Super Admin users to recover access to their accounts if their password has been forgotten.

The option is not available if either Single Sign On or Password Sync is in use.

Rationale:

Allowing users to recover access to their accounts when they have forgotten their passwords reduces the number of support tickets generated by users, and reduces the amount of down time spent waiting on the account recovery process to initiate and complete.

Impact:

The potential impact to users being allowed to recover their accounts includes:

- 1. The user is now empowered to reset their passwords.
- 2. The user will no longer need to call a helpdesk or open a support ticket to regain access to their account.

An organization that allows users to recover their account will realize less time spent by administrative staff working on these tasks.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Security.
- 3. Select User account recovery
- 4. Verify Allow users and non-super admins to recover their account is checked.

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Security.
- 3. Select User account recovery
- 4. Select either the pencil icon or the setting itself.
- 5. Set Allow users and non-super admins to recover their account to checked.
- 6. Select save.

Default Value:

Allow users and non-super admins to recover their account is OFF

4.1.3 Advanced Protection Program

Configure the strongest security settings for those who need it mo	est.

4.1.3.1 (L2) Ensure Advanced Protection Program is configured (Manual)

Profile Applicability:

Enterprise Level 2

Description:

Enable Google's Advanced Protection Platform for all users and prevent the use of security codes where applicable.

Rationale:

Sophisticated phishing tactics can trick the most savvy users into giving their sign-in credentials to attackers. Advanced Protection requires you to use a security key, which is a hardware device or special software on your phone used to verify your identity, to sign in to your Google Account. Unauthorized users won't be able to sign in without your security key, even if they have your username and password.

The Advanced Protection Program includes a curated group of high-security policies that are applied to enrolled accounts. Additional policies may be added to the Advanced Protection Program to ensure the protections are current.

Advanced Protection allows you to apply all of these protections at once, and override similar settings you may have configured manually. These policies include:

- Strong authentication with security keys
- Use of security codes with security keys (as needed)
- Restrictions on third-party access to account data
- Deep Gmail scans
- Google Safe Browsing protections in Chrome (when users are signed into Chrome using the same identity as their Advanced Protection Program identity)
- Account recovery through admin

Impact:

User Impact

- You need your security key when you sign in for the first time on a computer, browser, or device. If you stay signed in, you may not be asked to use your security key the next time you log in.
- Limits third-party app access to your data, puts stronger checks on suspicious downloads, and tightens account recovery security to help prevent unauthorized access.

Security Keys - 2 Required

- Android: With an Android 7.0+ phone, you can enroll in a few taps by registering your phone's built-in security key.
- iPhone: If you have an iPhone running iOS 10.0+, install the Google Smart Lock app to register your security key first, then enroll.
- Two security keys are required for added assurance. If one key is lost or damaged, users can use the second key to regain account access.

Third-Party iDP

 You can use the Advanced Protection Program with accounts that federate from an IdP using SAML. When users with these accounts enroll in the Advanced Protection Program, we'll require security key use after the user signs in on the IdP. Note that SAML users can select Remember the device to avoid challenges on a browser or device.

Security Codes

Before allowing users to generate security codes, carefully evaluate if your
organization needs them. Using security keys with security codes increases the
risk of phishing. However, if your organization has important workflows where
security keys can't be used directly, enabling security codes for those situations
may help improve your security posture overall.

Using 'Sign in with Google' with other apps and services

 You can still sign into apps and services with Google. If they request access to your Gmail or Drive data, access is denied.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Advanced Protection Program
- 4. Under Enrollment Allow users to enroll in the Advanced Protection Program, ensure Enable user enrollment is selected for the desired organizational unit or group
- 5. Under Security Codes, ensure Do not allow users to generate security codes is selected for the desired organizational unit or group

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Advanced Protection Program
- 4. Under Enrollment Allow users to enroll in the Advanced Protection Program, set Enable user enrollment to selected for the desired organizational unit or group
- 5. Under Security Codes, set Do not allow users to generate security codes to selected for the desired organizational unit or group
- 6. Select save

Default Value:

- Allow users to enroll in the Advanced Protection Platform is selected
- Security codes **iS** Allow security codes without remote access

Controls Version	Control	IG 1	IG 2	IG 3
v8	6.3 Require MFA for Externally-Exposed Applications Require all externally-exposed enterprise or third-party applications to enforce MFA, where supported. Enforcing MFA through a directory service or SSO provider is a satisfactory implementation of this Safeguard.		•	•
v7	16.3 Require Multi-factor Authentication Require multi-factor authentication for all user accounts, on all systems, whether managed onsite or by a third-party provider.		•	•

4.1.4 Login Challenges

Manage the information used during login to protect users.

4.1.4.1 (L2) Ensure login challenges are enforced (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Configure Google Workspace to verify a user's identity post-sso.

Rationale:

Many organizations use third-party identity providers (IdPs) to authenticate users who use single sign on (SSO) through SAML. The third-party IdP authenticates users and no additional risk-based challenges are presented to them. Any Google 2-Step Verification (2SV) configuration is ignored. This is the default behavior. You can set a policy to allow additional risk-based authentication challenges and 2SV if it's configured. If Google receives a valid SAML assertion (authentication information about the user) from the IdP during user sign-in, Google can present additional challenges to the user.

Login challenges requires users have a recovery phone number or email account associated with their organizational account. If not previously configured, users will be prompted to enter this information periodically until provided.

One login challenge option prompts users to enter their employee ID. This method is susceptible to information gathering attacks, should a list of employee IDs ever be leaked.

Impact:

The potential impact associated with implementation of this setting is dependent upon the existing 2-Step Verification (2SV) polices.

- If you have existing 2SV policies, such as 2SV enforcement, those policies apply immediately.
- Users affected by the new policy and who are enrolled in 2SV get a 2SV challenge at sign-in.
- Based on Google sign-in risk analysis, users might see risk-based challenges at sign-in.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Login Challenges
- **4.** Under Post-SSO verification, ensure Logins using SSO are subject to additional verifications (if appropriate) and 2-Step Verification (if configured) is checked
- 5. Under Login challenges, ensure Use employee ID to keep my users more secure is unchecked

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Login Challenges
- **4.** Under Post-SSO verification, **Set** Logins using SSO are subject to additional verifications (if appropriate) and 2-Step Verification (if configured) **iS** checked
- 5. Select save
- 6. Under Login challenges, **Set** Use employee ID to keep my users more secure to unchecked
- 7. Select save

Default Value:

- Post-SSO verification is Logins using SSO bypass additional verifications
- Use employee ID to keep my users more secure is unchecked

Controls Version	Control	IG 1	IG 2	IG 3
v8	6.3 Require MFA for Externally-Exposed Applications Require all externally-exposed enterprise or third-party applications to enforce MFA, where supported. Enforcing MFA through a directory service or SSO provider is a satisfactory implementation of this Safeguard.		•	•
v7	16.3 Require Multi-factor Authentication Require multi-factor authentication for all user accounts, on all systems, whether managed onsite or by a third-party provider.		•	•

4.1.5 Password Management

Configure password policies.

4.1.5.1 (L1) Ensure password policy is configured for enhanced security (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configure Google Workspace Password Policy with a more secure length and is enforced upon next sign-in to protect against the use of common password attacks.

Rationale:

Strong password policies protect an organization by prohibiting the use of weak passwords.

Impact:

The potential impact associated with implementation of this setting is dependent upon the existing password policies in place in the environment. For environments that have strong password policies in place, the impact will be minimal. For organizations that do not have strong password policies in place, enhancing the password policy may require users to change passwords, and adhere to more stringent requirements than they have been accustomed to.

Configuring passwords to expire at a 1 year mark ensures that users are not forced to change passwords so often that easily discerned patterns are used in the creation of the passwords. The day-to-day impact on users will be that they have to manage fewer passwords changing on a frequent basis.

NOTE: Password should be changed immediately on any indication of system compromise, when a user role changes, and when a user leaves the organization.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Password management
- 4. Under Strength, ensure Enforce strong passwords is checked
- 5. Under Length, ensure Minimum Length is set to 14+
- 6. Under Strength and Length enforcement, ensure Enforce password policy at next sign-in is set to checked
- 7. Under Reuse, ensure Allow password reuse is unchecked
- 8. Under Expiration, ensure Password reset frequency is set to 365 Days

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Password management
- 4. Under Strength, set Enforce strong passwords to checked
- 5. Under Length, set Minimum Length to 14 or greater
- **6.** Under Strength and Length enforcement, \mathbf{Set} Enforce password policy at next sign-in \mathbf{iS} checked
- 7. Under Reuse, set Allow password reuse to unchecked
- 8. Under Expiration, set Password reset frequency to 365 Days
- 9. Select Save

Default Value:

- Enforce strong password is checked
- Minimum length **iS** 8
- Maximum length **iS** 100
- Enforce password policy at next sign-in is not checked
- Allow password reuse is not checked
- Expiration is Never expires

Controls Version	Control	IG 1	IG 2	IG 3
v8	5.2 <u>Use Unique Passwords</u> Use unique passwords for all enterprise assets. Best practice implementation includes, at a minimum, an 8-character password for accounts using MFA and a 14-character password for accounts not using MFA.	•	•	•
v7	4.4 <u>Use Unique Passwords</u> Where multi-factor authentication is not supported (such as local administrator, root, or service accounts), accounts will use passwords that are unique to that system.		•	•

4.2 Access and Data Control

Access and Data Control settings.

4.2.1 API Controls

Manage OAuth access to third party apps, and manage Domain wide delegation.

4.2.1.1 (L2) Ensure application access to Google services is restricted (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Prevent unrestricted application access to Google services.

Rationale:

You can restrict (or leave unrestricted) access to most Workspace services, including Google Cloud Platform services such as Machine Learning. For Gmail and Google Drive, you can specifically restrict access to high-risk scopes (for example, sending Gmail or deleting files in Drive). While users are prompted to consent to apps, if an app uses restricted scopes and you haven't specifically trusted it, users can't add it.

Impact:

The potential impact associated with implementation of this setting is that any previously installed apps that you haven't trusted stop working and tokens are revoked. When a user tries to install an app that has a restricted scope, they're notified that it's blocked.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under overview, select manage google services
- 6. Ensure ALL applicable Google Services have Restricted in the Access column

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under overview, select manage google services
- 6. Select ALL applicable Google Services
- 7. Click Change access
- 8. Select Restricted: Only trusted apps can access a service

Default Value:

Access **iS** Unrestricted

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

4.2.1.2 (L2) Review third-party applications periodically (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Weekly review connected applications for potential malicious or unintended access or connections.

Rationale:

Performing a periodic review of connected applications and their permission scopes ensures only permitted and required applications can access organizational data or resources. Attackers commonly attempt to persuade or trick users to grant their application access to organizational data resources by asking for their consent.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under overview, select manage third-party app access
- 6. Ensure all listed applications have been properly vetted and authorized by the appropriate personnel

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under overview, select manage third-party app access
- 6. Select Change Access for the application you wish to remove
- 7. Select Blocked: Can't access any Google service
- 8. Log in to the Google Cloud Platform Resource Manager
 https://console.cloud.google.com/cloud-resource-manager as an
 administrator
- 9. Now Delete the desired application

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None

Controls Version	Control	IG 1	IG 2	IG 3
v8	2.1 <u>Establish and Maintain a Software Inventory</u> Establish and maintain a detailed inventory of all licensed software installed on enterprise assets. The software inventory must document the title, publisher, initial install/use date, and business purpose for each entry; where appropriate, include the Uniform Resource Locator (URL), app store(s), version(s), deployment mechanism, and decommission date. Review and update the software inventory biannually, or more frequently.	•	•	•
v8	2.3 Address Unauthorized Software Ensure that unauthorized software is either removed from use on enterprise assets or receives a documented exception. Review monthly, or more frequently.	•	•	•
v7	2.1 Maintain Inventory of Authorized Software Maintain an up-to-date list of all authorized software that is required in the enterprise for any business purpose on any business system.	•	•	•
v7	2.6 Address unapproved software Ensure that unauthorized software is either removed or the inventory is updated in a timely manner	•	•	•

4.2.1.3 (L1) Ensure internal apps can access Google Workspace APIs (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Enable access to Google Workspace APIs for customer-owned / developed applications.

Rationale:

All organization-built internal apps (owned by your organization), can be trusted to access restricted Google Workspace APIs. That way, the organization does not have to trust them all individually.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under Settings, verify Trust internal, domain-owned apps is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls, then select App access control
- 5. Under Settings, select Trust internal, domain-owned apps
- 6. Select save

Default Value:

Trust internal, domain-owned apps $i\mathbf{S}$ selected

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

4.2.1.4 (L2) Review domain-wide delegation for applications periodically (Manual)

Profile Applicability:

• Enterprise Level 2

Description:

Weekly review domain-wide delegations for applications for potentially malicious or unintended access or connections.

Rationale:

Domain-wide delegation is a powerful feature that allows apps to access users' data across your organization's entire Workspace account. Performing a periodic review of domain-wide delegations for applications and their permission scopes ensures only permitted and required applications can access organizational data or resources.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls
- 5. Under Domain wide delegation, select MANAGE DOMAIN WIDE DELEGATION
- 6. Ensure all listed applications have been properly vetted and authorized by the appropriate personnel

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select API Controls
- 5. Under Domain wide delegation, select MANAGE DOMAIN WIDE DELEGATION
- 6. Select Change Access for the application you wish to remove
- 7. Now Delete the desired application

Default Value:

None

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.3 Configure Data Access Control Lists Configure data access control lists based on a user's need to know. Apply data access control lists, also known as access permissions, to local and remote file systems, databases, and applications.	•	•	•
v7	14.6 Protect Information through Access Control Lists Protect all information stored on systems with file system, network share, claims, application, or database specific access control lists. These controls will enforce the principle that only authorized individuals should have access to the information based on their need to access the information as a part of their responsibilities.	•	•	•

4.2.2 Context-Aware Access

Use device and user identification to manage access levels and enforce access policies for Google Workspace applications.

4.2.2.1 (L1) Ensure blocking access from unapproved geographic locations (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Restrict access to selected Google applications by geographic location.

Rationale:

Restricting access to known/approved geographic locations is a simple way to limit where attacks can originate from. Especially for smaller organizations that do not need global access to applications.

Impact:

Valid/approved users traveling to a geographic region outside of those defined in the Access Level will not be able to access their applications.

Audit:

To verify this setting via the Google Workspace Admin Console: **Verify an appropriate Access Level has been defined**

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Context-Aware Access
- 5. Select Access levels
- 6. Review the list of Access Levels displayed and determine if there is an appropriate restriction on geographic access

Verify the appropriate Access Level has been assigned to the application(s) that need the restriction

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Context-Aware Access
- 5. Select Assign access levels
- 6. Review the list of Google Applications displayed and make sure the appropriate access level for geographic access is assigned to each

NOTE: CIS recommends geographically restricting access to the following Google applications at minimum:

- 1. Admin Console
- 2. Drives and Docs
- 3. Gmail
- 4. Google Vault

Remediation:

To configure this setting via the Google Workspace Admin Console:

Create an appropriate Access Level

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Context-Aware Access
- 5. Select Access levels
- 6. Select Create Access Level
- Under Details Name the Access Level (Suggested using a clear name ex. "Restrict to USA")
- 8. Under Conditions Select Basic
- 9. Under Condition 1 Select Meet attributes
- 10. Under Condition 1 Select Add Attribute
- 11. Click on the Add Attribute drop-down box and select Geographic origin
- 12. Click on the far right drop-down box and select the region, or regions, to be allowed (ex. United States)
- 13. Click Save

Assign the defined Access Level has been assigned to the application(s) that need the restriction

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Context-Aware Access
- 5. Select Assign access levels
- 6. For each application listed that needs this restriction, select Assign
- 7. Under, Access is granted when a user meets conditions in at least one of the selected access levels, ensure the previously named Access Level (ex. "Restrict to USA") is checked
- 8. Also, ensure Apply to Google desktop and mobile apps is checked

NOTE: CIS recommends geographically restricting assess to the following Google applications at minimum:

- 1. Admin Console
- 2. Drives and Docs
- 3. Gmail
- 4. Google Vault

Default Value:

None

Controls Version	Control	IG 1	IG 2	IG 3
v7	16.13 <u>Alert on Account Login Behavior Deviation</u> Alert when users deviate from normal login behavior, such as time-of-day, workstation location and duration.			•

4.2.3 Data Protection

Google Workspace has extensive Data Leak Protection (DLP) capabilities built in based on the licensing level. These capabilities allow admins to confidently secure your company's sensitive data from being leaked to unauthorized parties and manage third-party app access to your Google Services. CIS considers using these capabilities extremely important, but they are also extremely organization dependent. What is considered protected information varies significantly from company to company and region to region.

For example, Google provides a wide variety of detectors organized by type (Credentials and Secrets, Documents, etc.) and region (United States, United Kingdom, Australia, etc.) For the United States alone here are some options for detectors:

- Social Security Number (SSN)
- Driver's License Number
- Drug Enforcement Administration (DEA) Number
- American Bankers Association (ABA) Routing Number
- National Provider Identifier (NPI)
- Committee on Uniform Security Identification Procedures (CUSIP)
- Food and Drug Administration (FDA) Approved Prescription Drugs
- Passport
- State Names
- Adoption Taxpayer Identification Number (ATIN)
- Employer Identification Number (EIN)
- Individual Taxpayer Identification Number (ITIN)
- Toll Free Phone Number
- Vehicle Identification Number (VIN)
- Preparer Taxpayer Identification Number (PTIN)

Admins are encouraged learn more about the DLP capabilities of Google Workspace and setup appropriate DLP rules for their organization.

- An overview of DLP in Google documentation is <u>here</u>.
- Details on predefined detectors Google documentation is here.
- Details on Regular Expression use in Google documentation is here.

Some good videos on Google Workspace usage:

- Detectors Overview is here.
- Rules Overview is here.
- General demo is here.

4.2.3.1 (L1) Ensure DLP policies for Google Drive are configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Enabling Data Loss Prevention (DLP) policies for Google Drive allows organizations to control the content that users can share in Google Drive files outside the organization.

Rationale:

Enabling DLP policies alerts users and administrators that specific types of data should not be exposed, helping to protect the data from accidental exposure. DLP gives you control over what users can share, and prevents unintended exposure of sensitive information such as credit card numbers or identity numbers

Impact:

Configuring a DLP policy for Google Drive will detect or block sensitive information.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Data protection
- 5. Select Manage Rules
- 6. Ensure data protection rules exist and are enabled

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Data protection
- 5. Select Manage Rules
- 6. Select ADD RULE, then select either New rule or New rule from template

New rule

Examples can be found **here**.

- 1. Set the rule Name
- 2. Optionally Set the rule Description
- 3. Set the Scope as appropriate
- 4. Select Continue
- 5. Set Triggers by checking File modified under Google Drive
- 6. Select ADD CONDITION and configure values (Field, Comparison Operator, Content to match) Repeat as appropriate
- 7. Select Continue
- 8. Under Actions, select the desired action to take for each incident
- 9. Under Alerting, select the desired severity level
- 10. Under Alerting. Select Send to alert center
- 11. Select Continue
- 12. Select Create

New rule from template

- 1. Select the desired rule template
- 2. Optionally set the Name as desired
- 3. Optionally set the `Description as desired
- 4. Set the scope as appropriate
- 5. Select Continue
- 6. Modify preconfigured Conditions as desired, or add additional conditions
- 7. Select Continue
- 8. Under Alerting, Select Send to alert center
- 9. Select Continue
- 10. Select Create

Default Value:

No DLP policies for Google Drive are configured by default

References:

- 1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2Fsupport.google.com%2Fa%2Fanswer%2F10846568%3Fvisit-id%3D638058685723082013-
 - 4065283876&product context=10846568&product name=UnuFlow&trigger context=a
- 2. https://workspaceupdates.googleblog.com/2020/10/data-protection-dlp-reports.html

Controls Version	Control	IG 1	IG 2	IG 3
v8	3.13 <u>Deploy a Data Loss Prevention Solution</u> Implement an automated tool, such as a host-based Data Loss Prevention (DLP) tool to identify all sensitive data stored, processed, or transmitted through enterprise assets, including those located onsite or at a remote service provider, and update the enterprise's sensitive data inventory.			•
v7	14.7 Enforce Access Control to Data through Automated Tools Use an automated tool, such as host-based Data Loss Prevention, to enforce access controls to data even when data is copied off a system.			•

4.2.4 Google Session Control

Set session duration for Google core and additional services, such as Gmail and Docs.

4.2.4.1 (L1) Ensure Google session control is configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configure Google Workspace's session control to strengthen session expiration.

Rationale:

As an administrator, you can control how long users can access Google services, such as Gmail on the web, without having to sign in again. For example, for users that work remotely or from untrusted locations, you might want to limit the time that they can access sensitive resources by applying a shorter web session length. If users want to continue accessing a resource when a session ends, they're prompted to sign in again and start a new session.

How the settings work on mobile devices varies by device and app.

Impact:

The potential impact associated with implementation of this setting are:

- When a web session expires for a user, they see the Verify it's you page and must sign in again.
- When you change the session length, users need to sign out and in again for settings to take effect.
- If you set the session to never expire, users never have to sign in again.
- If you need some users to sign in more frequently than others, place them in different organizational units. Then, apply different session lengths to them. That way, certain users won't be interrupted to sign in when it isn't necessary.
- If a Google Meet meeting starts within 2 hours of a session's scheduled expiration, the user is forced to sign in again before the start of the meeting. This helps avoid an interruption to the meeting while in-progress.
- If you're using a third-party identity provider (IdP), such as Okta or Ping, and you set web session lengths for your users, you need to set the IdP session length parameter to expire before the Google session expires. That way, your users will be forced to sign in again. If the third-party IdP session is still valid when the Google session expires, the Google session might be renewed automatically without the user signing in again.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Google session control
- 5. Verify Web session duration, is 12 hours or less

Remediation:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Google session control
- 5. Set Web session duration to 12 hours or less
- 6. Select save

Default Value:

Web session duration is 14 days

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.3 Configure Automatic Session Locking on Enterprise Assets Configure automatic session locking on enterprise assets after a defined period of inactivity. For general purpose operating systems, the period must not exceed 15 minutes. For mobile end-user devices, the period must not exceed 2 minutes.	•	•	•

4.2.5 Google Cloud Session Control

Set session duration for Google Cloud Platform console and Google Cloud SDK.				

4.2.5.1 (L2) Ensure Google Cloud session control is configured (Manual)

Profile Applicability:

Enterprise Level 2

Description:

Configure Google cloud session control to strengthen session expiration.

Rationale:

As an administrator, you can control how long different users can access the Google Cloud console and Cloud SDK without having to re-authenticate. For example, you might want users with elevated privileges, like project owners, billing administrators, or others with administrator roles, to re-authenticate more frequently than regular users. If you set a session length, they're prompted to sign in again to start a new session.

Impact:

The potential impact associated with implementation of this setting are:

- When a Google cloud session expires for a user, they see the Verify it's you page and must sign in again.
- If you require a security key, users who do not have one cannot use the GCP Console or Cloud SDK until they set it up. Once they have a security key, they can switch to using their password instead if they want.

If you're using a third-party identity provider (IdP):

- With the GCP Console—If you require a user to re-authenticate using their password, they're redirected to the identity provider (IdP). The IdP might not require the user to re-enter their password to start another console session, if the user already has a session active with the IdP—because they are using another application that caused the session to remain active. If a user must reauthenticate by touching their security key, they can do this while using the console. They will not be redirected to the IdP.
- With the Cloud SDK—If a password is required for re-authentication, gcloud will
 require the user to execute the gcloud auth login command to renew the session.
 This will bring up a browser window, and the user will be taken to the IdP, where
 they may be prompted for credentials if there's no active session with the IdP. If a
 user must reauthenticate by touching their security key, they can do this on the
 Cloud SDK. They will not be redirected to the IdP.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Google Cloud session control
- 5. Under Reauthentication policy, ensure Require reauthentication is selected and Exempt Trusted apps is unchecked
- 6. Verify Reauthentication frequency, is16 hours (recommended)
- 7. Verify Reauthentication method is Security key

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Google Cloud session control
- 5. Under Reauthentication policy, **Set** Require reauthentication **to selected and**Exempt Trusted apps **iS** unchecked
- 6. Set Reauthentication frequency to 16 hours (recommended)
- 7. **Set** Reauthentication method **to** Security key
- 8. Select Override

Default Value:

Reauthentication policy is Never require reauthentication

Controls Version	Control	IG 1	IG 2	IG 3
v8	4.3 Configure Automatic Session Locking on Enterprise Assets Configure automatic session locking on enterprise assets after a defined period of inactivity. For general purpose operating systems, the period must not exceed 15 minutes. For mobile end-user devices, the period must not exceed 2 minutes.	•	•	•

4.2.6 Less Secure Apps

Configure policies to manage access to less-secure apps.

4.2.6.1 (L1) Ensure less secure app access is disabled (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configure Google Workspace security settings to prevent access to less secure apps.

Rationale:

You can block sign-in attempts from some apps or devices that are less secure. Apps that are less secure don't use modern security standards, such as OAuth. Using apps and devices that don't use modern security standards increases the risk of accounts being compromised. Blocking these apps and devices helps keep your users and data safe.

Impact:

The potential impact associated with implementation of this setting is that users won't be able to turn on access to less secure apps. When you disable access to less secure apps while a less secure app has an open connection with a user account, the app will time out when it tries to refresh the connection. Timeout periods vary per app.

Audit:

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Less secure apps
- 5. Ensure Disable access to less secure apps (Recommended) is selected

Remediation:

To configure this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator
- 2. Select Security
- 3. Select Access and Data Control
- 4. Select Less secure apps
- 5. Select Disable access to less secure apps (Recommended)
- 6. Click save to commit this configuration change.

Default Value:

Disable access to less secure apps (Recommended) $\dot{\textbf{IS}}$ selected

4.3 Security Center

Security Reports.

A note on the Investigation tool

The Investigation tool found in the Security center portion of the Google Workspace Admin UI is a powerful tool for investigating various incidents. It is basically a flexible search that has access to essentially all the various logs in Google Workspace. How this tool would be used is very organization-specific and possibly event specific, so CIS does not have any specific recommendations for its use in this Benchmark.

That being said, admins should be aware of this tool and it capabilities, since it will be very useful in detecting and resolving various incidents, so we urge admins to get familiar with the tool. For example, you can use the investigation tool to:

- Access data about devices.
- Access device log data to get a clear view of the devices and applications being used to access your data.
- Access data about Gmail messages, including email content.
- Access Gmail log data to find and erase malicious emails, mark emails as spam or phishing, or send emails to users' inboxes.
- View search results that list suspended users.
- Access Drive log data to investigate file sharing in your organization, investigate the creation and deletion of documents, investigate who accessed documents, and more.

For more information:

- Google Documentation is <u>here</u>.
- A useful overview video is here.

4.3.1 (L1) Ensure the Dashboard is reviewed regularly for anomalies (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As an administrator, you can use the security dashboard to see an overview of different security reports. By default, each security report panel displays data from the last 7 days. You can customize the dashboard to view data from Today, Yesterday, This week, Last week, This month, Last month, or Days ago (up to 180 days).

Charts/reports available (Minimum, but could be many more depending on account type):

- DLP incidents
- Top policy incidents
- Failed device password attempts
- Compromised device events
- Suspicious device activities
- OAuth scope grants by product (beta customers only)
- OAuth grant activity
- OAuth grants to new apps
- User login attempts Challenge method
- User login attempts Failed
- User login attempts Suspicious

Details on what each of these charts/reports mean can be found <u>here</u>. This report should be reviewed weekly.

NOTE: The availability of each individual report on the security dashboard depends on your Google Workspace edition. See Google documentation for more details.

NOTE: In larger organizations reviewing this entire report weekly may not be possible. At a minimum, all Administrator and Super Administrator users should be reviewed, since they are a higher risk. These can be filtered from the overall user list.

Rationale:

The Security report provides a comprehensive view of how people share and access data and whether they take appropriate security precautions. For example, you can review who installs external apps, shares numerous files, skips 2-Step Verification, and uses security keys.

Impact:

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 Reporting
- 3. Select Reports
- 4. Select User Reports
- 5. Select security, and a table of results will be displayed with the fields listed in the Recommendation description above.
- 6. Review the displayed users and values for anomalies

Remediation:

The remediation for any anomalies in the various fields varies widely (different sections of the Google Workspace Admin UI). Please refer to Google's documentation for specifics (here).

NOTE: Many of these settings will be remedied by implementing other sections of this Benchmark. For example, an Admin not enrolled in 2-Step Verification can be remedied by implementing the Remediation procedure for the recommendation *Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles.*

Default Value:

The report will display all users and fields.

References:

1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com%2Fa%2Fanswer%2F7492330&assistant-id=generic-unu&product-context=7492330&product-name=UnuFlow&trigger-context=a

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.11 Conduct Audit Log Reviews Conduct reviews of audit logs to detect anomalies or abnormal events that could indicate a potential threat. Conduct reviews on a weekly, or more frequent, basis.		•	•
v7	6.7 Regularly Review Logs On a regular basis, review logs to identify anomalies or abnormal events.		•	•

4.3.2 (L1) Ensure the Security health is reviewed regularly for anomalies (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As an administrator, the security health page enables you to monitor the configuration of your Admin console settings from one location. For example, you can check the status of settings like automatic email forwarding, device encryption, Drive sharing settings, and much more.

Settings reported (Minimum, but could be many more depending on account type):

- Blocking of compromised mobile devices
- Mobile management
- Mobile password requirements
- Device encryption
- Mobile inactivity reports
- Auto account wipe
- Application verification
- Installation of mobile applications from unknown sources
- External media storage
- Two-step verification for users
- Two-step verification for admins
- Security key enforcement for admins

Details on what each of these report entries mean can be found <u>here</u>. This report should be reviewed weekly.

NOTE: The availability of each individual report on the security dashboard depends on your Google Workspace edition. See Google documentation for more details.

Rationale:

The security health page provides visibility into your Admin console settings to help you better understand and manage security risks. If needed, you can make adjustments to your domain's settings based on general security guidelines and best practices, while balancing these guidelines with your organization's business needs and risk management policy.

Impact:

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 Security
- 3. Select Security center
- 4. Select Security health, and a table of results will be displayed with the settings listed in the Recommendation description above.
- 5. Review the displayed values for anomalies

Remediation:

The remediation for any anomalies in the various settings varies widely (different sections of the Google Workspace Admin UI). Please refer to Google's documentation for specifics (here).

NOTE: Many of these settings will be remedied by implementing other sections of this Benchmark. For example, an Admin not enrolled in 2-Step Verification can be remedied by implementing the Remediation procedure for the recommendation *Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles.*

Default Value:

The report will display the status of a predefined group of settings based on your Google Workspace license.

References:

1. https://apps.google.com/supportwidget/articlehome?article_url=https%3A%2F%2 https://apps.google.com/supportwidget/articlehome?article_url=https%3A%2F%2 https://apps.google.com%2Fa%2Fanswer%2F7491656&assistant_id=generic-unu&product_context=7491656&product_name=UnuFlow&trigger_context=a

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.11 Conduct Audit Log Reviews Conduct reviews of audit logs to detect anomalies or abnormal events that could indicate a potential threat. Conduct reviews on a weekly, or more frequent, basis.		•	•
v7	6.7 Regularly Review Logs On a regular basis, review logs to identify anomalies or abnormal events.		•	•

5 Reporting

The Reporting section of the Google Workspace Admin Console.

This area is quite diverse and there is a wide variety of existing reports available and even more, that can be developed by users. The usefulness of these reports are very organizationally specific and CIS urges companies to explore the various reporting capabilities and tailor them to the organization's needs.

This section will cover a few specific security-related reports that CIS feels are applicable to all organizations and that should be reviewed on a regular basis.

NOTE: Some of the reports will ultimately go to other sections of the UI and these same reports can be accessed there. The "Reports" section just is just a way to consolidate them into one area of the Google Workspace admin UI.

5.1 Reports

The Reports sub-section.

5.1.1 User Reports

User Reports sub-section.

5.1.1.1 (L1) Ensure the App Usage Report is reviewed regularly for anomalies (Manual)

Profile Applicability:

Enterprise Level 1

Description:

As an administrator, you can use Apps usage reports to get an in-depth understanding of how your users use Google Workspace apps.

Fields Available:

- User
- Gmail storage used (MB)
- Drive storage used (MB)
- Photos storage used (MB)
- Total storage used (MB)
- Storage used (%)
- · Classroom last used time
- Classes created
- Posts created
- Total emails
- Emails sent
- · Emails received
- Gmail (IMAP) last used time
- Gmail (POP) last used time
- Gmail (Web) last used time
- Files edited
- Files viewed
- Drive last active time
- Files added
- Other types added
- Google Docs added
- · Google Sheets added
- Google Slides added
- Google Forms added
- Google Drawings added
- Posts
- +1s
- +1s received
- Comments
- Comments received
- Reshares
- Reshares received
- Search queries

- Search gueries from web
- Search queries from Android
- Search queries from iOS

Details on what each of these fields mean can be found <u>here</u>. This report should be reviewed weekly.

NOTE: In larger organizations reviewing this entire report weekly may not be possible. At a minimum, all Administrator and Super Administrator users should be reviewed, since they are a higher risk. These can be filtered from the overall user list.

Rationale:

The App usage report can allow administrator to discover user that are potentially using application that they do not have access to and/or using in atypical ways.

Impact:

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 Reporting
- 3. Select Reports
- 4. Select User Reports
- 5. Select App usage, and a table of results will be displayed with the fields listed in the Recommendation description above.
- 6. Review the displayed users and values for anomalies

Remediation:

The remediation for any anomalies in the various fields varies widely (different sections of the Google Workspace Admin UI). Please refer to Google's documentation for specifics (here).

NOTE: Many of these settings will be remedied by implementing other sections of this Benchmark. For example, an Admin showing recent Gmail (IMAP) - last used time and/or Gmail (POP) - last used time can be remedied by implementing the Remediation procedure for the recommendation *Ensure POP and IMAP access is disabled for all users*.

Default Value:

The report will display all users and fields.

References:

1. https://apps.google.com/supportwidget/articlehome?hl=en&article_url=https%3A <a href="mailto:%2F%2Fsupport.google.com%2Fa%2Fanswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https://articlehome?hl=en&article_url=https%3A <a href="mailto:tankenswer%2F4579578%3Fhl%3Den&assis_tant_id=generic-unu&product_url=https://articlehome?hl=en&articlehome?hl=en&articlehome?hl=en&articlehome?hl=en&articlehome?hl=en&articlehome?hl=en&articlehome?hl=en&articlehome?hl=

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.11 Conduct Audit Log Reviews Conduct reviews of audit logs to detect anomalies or abnormal events that could indicate a potential threat. Conduct reviews on a weekly, or more frequent, basis.		•	•
v7	6.7 Regularly Review Logs On a regular basis, review logs to identify anomalies or abnormal events.		•	•

5.1.1.2 (L1) Ensure the Security Report is reviewed regularly for anomalies (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

As your organization's administrator, you can monitor your users' exposure to data compromise by reviewing the security report.

Fields Available:

- User
- External apps
- 2-Step verification enrollment
- 2-Step verification enforcement
- Password length compliance
- Password strength
- User account status
- Admin status
- Security keys enrolled
- Less secure apps access
- Gmail (IMAP) last used time
- Gmail (POP) last used time
- Gmail (Web) last used time
- External shares
- Internal shares
- Public
- Anyone with link
- Outside domain
- Anyone in domain shares
- Anyone in domain with link shares
- Within domain shares
- Private shares

Details on what each of these fields mean can be found <u>here</u>. This report should be reviewed weekly.

NOTE: In larger organizations reviewing this entire report weekly may not be possible. At a minimum, all Administrator and Super Administrator users should be reviewed, since they are a higher risk. These can be filtered from the overall user list.

Rationale:

The Security report provides a comprehensive view of how people share and access data and whether they take appropriate security precautions. For example, you can review who installs external apps, shares numerous files, skips 2-Step Verification, and uses security keys.

Impact:

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 Reporting
- 3. Select Reports
- 4. Select User Reports
- 5. Select Security, and a table of results will be displayed with the fields listed in the Recommendation description above.
- 6. Review the displayed users and values for anomalies

Remediation:

The remediation for any anomalies in the various fields varies widely (different sections of the Google Workspace Admin UI). Please refer to Google's documentation for specifics (here).

NOTE: Many of these settings will be remedied by implementing other sections of this Benchmark. For example, an Admin not enrolled in 2-Step Verification can be remedied by implementing the Remediation procedure for the recommendation *Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles*.

Default Value:

The report will display all users and fields.

References:

- https://apps.google.com/supportwidget/articlehome?hl=en&article_url=https%3A %2F%2Fsupport.google.com%2Fa%2Fanswer%2F6000269%3Fhl%3Den&assis tant_id=generic-
 - <u>unu&product context=6000269&product name=UnuFlow&trigger context=a</u>

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v8	8.11 Conduct Audit Log Reviews Conduct reviews of audit logs to detect anomalies or abnormal events that could indicate a potential threat. Conduct reviews on a weekly, or more frequent, basis.		•	•
v7	6.7 Regularly Review Logs On a regular basis, review logs to identify anomalies or abnormal events.		•	•

6 Rules

The Rules section of the UI.

Note on the Rules section

Google Workspace has a powerful notification capability consolidated in the Rules section of the admin UI. A given organization may want to define a wide variety of rules to notify key people of various security-related events. This section will provide some specific recommendations that CIS feels that should be monitored universally, but it only scratches the surface of possibilities. Admins are encouraged to learn more about how to define new rules specific to their organization's needs and threats and use them to their advantage.

- Google documentation on System defined rules is <u>here</u>.
- Google documentation on create and manage trust rules for drive sharing rules is here.
- Google documentation on admin access to reporting rules & activity rules is here.

6.1 (L1) Ensure User's password changed is configured (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when a user's password has changed.

Rationale:

Ensuring that administrators are alerted when user passwords are changed provides organizations with the ability to detect and halt potential attacks involving credential compromise and account takeover.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select view list.
- 4. Scroll to User's password changed and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Medium
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to User's password changed and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to Medium
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the User's password changed shows an Alert status of on in the list.

Default Value:

User's password changed is OFF

6.2 (L1) Ensure Government-backed attacks is configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google believes your users are being targeted by a government-backed attack.

Rationale:

Ensuring that administrators are alerted that they may be being targeted by a government-backed entity allows them time to check their defenses and potentially up their sensitivity for anomalies.

NOTE: Google sends these out of an abundance of caution — the notice does not necessarily mean that the account has been compromised or that there is a widespread attack. Rather, the notice reflects Goggle's assessment that a government-backed attacker has likely attempted to access the user's account or computer through phishing or malware, for example.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Government-backed attacks and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to High
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Government-backed attacks and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to High
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the Government-backed attacks shows an Alert status of on in the list.

Default Value:

Government-backed attacks is ON

References:

1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com%2Fa%2Fanswer%2F3230421&assistant-id=generic-unu&product-context=3230421&product-name=UnuFlow&trigger-context=a

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v7	16.13 <u>Alert on Account Login Behavior Deviation</u> Alert when users deviate from normal login behavior, such as time-of-day, workstation location and duration.			•

6.3 (L1) Ensure User suspended due to suspicious activity is configured (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google suspended a user's account due to a potential compromise detected.

Rationale:

Ensuring that administrators are alerted when the account was suspended by Google. The reason for this should be investigated ASAP, since it could be a possible indication of malicious activity. In any case, the user's account was suspended and something will need to be done to allow the user to resume work.

Impact:

Emails will be sent to all super administrators when triggered. Also, the user's account will be suspended and something will need to be done about that based on company policy (investigated, re-enabled, etc.).

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to User suspended due to suspicious activity and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the severity is set to High
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to User suspended due to suspicious activity and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to High
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the User suspended due to suspicious activity shows an Alert status of on in the list.

Default Value:

User suspended due to suspicious activity is ON

References:

1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com%2Fa%2Fanswer%2F3230421&assistant-id=generic-unu&product-context=3230421&product-name=UnuFlow&trigger-context=a

6.4 (L1) Ensure User granted Admin privilege is configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when a user has been granted an admin privilege.

Rationale:

Ensuring that administrators are alerted when a user is given increased privileges could be an indication of compromise unless this access has been approved.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to User granted Admin privilege and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Medium
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to User granted Admin privilege and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to Medium
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the User granted Admin privilege shows an Alert status of on in the list.

Default Value:

User granted Admin privilege iS OFF

References:

1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com%2Fa%2Fanswer%2F3230421&assistant-id=generic-unu&product-context=3230421&product-name=UnuFlow&trigger-context=a

6.5 (L1) Ensure Suspicious programmatic login is configured (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google detects suspicious login attempts from applications or computer programs.

Rationale:

Ensuring that administrators are alerted when suspicious login attempts occur. This could be an indication of an active attack on the company by an adversary using previously obtained credentials.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Suspicious programmatic login and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Low
- 7. Ensure that Email Notifications is set to on
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Suspicious programmatic login and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to Low
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the Suspicious programmatic login shows an Alert status of on in the list.

Default Value:

Suspicious programmatic login is ON

References:

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v7	16.13 Alert on Account Login Behavior Deviation Alert when users deviate from normal login behavior, such as time-of-day, workstation location and duration.			•

6.6 (L1) Ensure Suspicious login is configured (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google detects a sign-in attempt that doesn't match a user's normal behavior, such as a sign-in from an unusual location.

Rationale:

Ensuring that administrators are alerted when suspicious login attempts occur. This could be an indication of an active attack on the company by an adversary using previously obtained credentials.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Suspicious login and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Low
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Suspicious login and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to Low
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the Suspicious login shows an Alert status of on in the list.

Default Value:

Suspicious login is ON

References:

1. <a href="https://apps.google.com/supportwidget/articlehome?article_url=https%3A%2F%2Fsupport.google.com%2Fa%2Fanswer%2F3230421&assistant_id=generic-unu&product_context=3230421&product_name=UnuFlow&trigger_context=a

CIS Controls:

Controls Version	Control	IG 1	IG 2	IG 3
v7	16.13 Alert on Account Login Behavior Deviation Alert when users deviate from normal login behavior, such as time-of-day, workstation location and duration.			•

6.7 (L1) Ensure Leaked password is configured (Manual)

Profile Applicability:

• Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google detects compromised credentials requiring a reset of a user's password.

Rationale:

Ensuring that administrators are alerted when Google detects that a user's credentials have been compromised due to a publicized breach. This is usually because the user has reused their credentials at another site that was breached.

Impact:

Emails will be sent to super administrators when triggered and in these cases, the user's password will need to be changed.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Leaked password and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Medium
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Leaked password and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to High
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the Leaked password shows an Alert status of on in the list.

Default Value:

Leaked password is ON

References:

1. <a href="https://apps.google.com/supportwidget/articlehome?article_url=https%3A%2F%2Fsupport.google.com%2Fa%2Fanswer%2F3230421&assistant_id=generic-unu&product_context=3230421&product_name=UnuFlow&trigger_context=a

6.8 (L1) Ensure Gmail potential employee spoofing is configured (Manual)

Profile Applicability:

Enterprise Level 1

Description:

Configuring and enabling the setting that an alert will be generated when Google detects incoming messages are received where a sender's name is in your Google Workspace directory, but the mail is not from your company's domains or domain aliases.

Rationale:

Ensuring that administrators are alerted when the email is being spoofed since this could be an indication of a phishing attempt.

Impact:

This setting should have no impact on the end user but will send emails to super administrators when triggered.

Audit:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Gmail potential employee spoofing and select it.
- 5. Ensure that Alerts is set to on.
- 6. Ensure the Severity is set to Medium
- 7. Ensure that Email Notifications is set to On
- 8. Ensure that Email notification recipients is set to All super administrators

To verify this setting via the Google Workspace Admin Console:

- 1. Log in to https://admin.google.com as an administrator.
- 2. Select Rules
- 3. Under Google protects you by default select View list.
- 4. Scroll to Gmail potential employee spoofing and select it.
- 5. Within the Actions pane, click the edit pencil on the right side of the pane.
- 6. Select Send to alert center (This will result in the alert being set to On).
- 7. Set the alert severity to Medium
- 8. To enable emails when this alert condition is met, select send email notifications. Once enabled, the All super administrators option is selected by default.
- 9. Click Review to confirm the values.
- 10. Click Update Rule.
- 11. Confirm that the Gmail potential employee spoofing shows an Alert status of on in the list.

Default Value:

Gmail potential employee spoofing is ON

References:

1. https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com/supportwidget/articlehome?article-url=https%3A%2F%2-25 https://apps.google.com%2Fa%2Fanswer%2F3230421&assistant-id=generic-unu&product-context=3230421&product-name=UnuFlow&trigger-context=a

Appendix: Summary Table

CIS Benchmark Recommendation			et ectly
		Yes	No
1	Directory		
1.1	Users		
1.1.1	(L1) Ensure more than one Super Admin account exists (Manual)		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist (Manual)		
1.2	Directory Settings		
1.2.1	Sharing Settings		
1.2.1.1	(L1) Ensure directory data access is externally restricted (Manual)		
2	Devices		
3	Apps		
3.1	Google Workspace		
3.1.1	Calendar		
3.1.1.1	Sharing Settings		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured (Manual)		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured (Manual)		
3.1.1.1.3	(L1) Ensure external invitation warnings for Google Calendar are configured (Manual)		
3.1.1.2	General Settings		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured (Manual)		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured (Manual)		
3.1.1.3	Advanced Settings		
3.1.1.3.1	(L2) Ensure calendar web offline is disabled (Manual)		
3.1.2	Drive and Docs	•	
3.1.2.1	Sharing Settings		
3.1.2.1.1	Sharing Options		
3.1.2.1.1.1	(L1) Ensure users are warned when they share a file outside their domain (Manual)		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted (Manual)		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists (Manual)		
3.1.2.1.1.4	(L2) Ensure users are warned when they share a file with users in an allowlisted domain (Manual)		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access (Manual)		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally (Manual)		
3.1.2.1.2	Shared Drive Creation		
3.1.2.1.2.1	(L1) Ensure users can create new shared drives (Manual)		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings (Manual)		

CIS Benchmark Recommendation		_	et ectly	
		Yes	No	
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only (Manual)			
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled (Manual)			
3.1.2.2	Features and Applications			
3.1.2.2.1	(L1) Ensure offline access to documents is disabled (Manual)			
3.1.2.2.2	(L1) Ensure desktop access to Drive is disabled (Manual)			
3.1.2.2.3	(L1) Ensure Add-Ons is disabled (Manual)			
3.1.3	Gmail			
3.1.3.1	User Settings			
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox (Manual)			
3.1.3.1.2	(L1) Ensure offline access to Gmail is disabled (Manual)			
3.1.3.2	Authenticate email			
3.1.3.2.1	(L1) Ensure that DKIM is enabled for all mail enabled domains (Manual)			
3.1.3.2.2	(L1) Ensure the SPF record is configured for all mail enabled domains (Manual)			
3.1.3.2.3	(L1) Ensure the DMARC record is configured for all mail enabled domains (Manual)			
3.1.3.3	Manage Quarantines		'	
3.1.3.3.1	(L1) Enable quarantine admin notifications for Gmail (Manual)			
3.1.3.4	Safety			

CIS Benchmark Recommendation			et ectly
		Yes	No
3.1.3.4.1	Attachments		
3.1.3.4.1.1	(L1) Ensure protection against encrypted attachments from untrusted senders is enabled (Manual)		
3.1.3.4.1.2	(L1) Ensure protection against attachments with scripts from untrusted senders is enabled (Manual)		
3.1.3.4.1.3	(L1) Ensure protection against anomalous attachment types in emails is enabled (Manual)		
3.1.3.4.2	Links and external images		
3.1.3.4.2.1	(L1) Ensure link identification behind shortened URLs is enabled (Manual)		
3.1.3.4.2.2	(L1) Ensure scan linked images for malicious content is enabled (Manual)		
3.1.3.4.2.3	(L1) Ensure warning prompt is shown for any click on links to untrusted domains (Manual)		
3.1.3.4.3	Spoofing and authentication	•	
3.1.3.4.3.1	(L1) Ensure protection against domain spoofing based on similar domain names is enabled (Manual)		
3.1.3.4.3.2	(L1) Ensure protection against spoofing of employee names is enabled (Manual)		
3.1.3.4.3.3	(L1) Ensure protection against inbound emails spoofing your domain is enabled (Manual)		
3.1.3.4.3.4	(L1) Ensure protection against any unauthenticated emails is enabled (Manual)		
3.1.3.4.3.5	(L1) Ensure groups are protected from inbound emails spoofing your domain (Manual)		
3.1.3.5	End User Access		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
3.1.3.5.1	(L2) Ensure POP and IMAP access is disabled for all users (Manual)		
3.1.3.5.2	(L1) Ensure automatic forwarding options are disabled (Manual)		
3.1.3.5.3	(L1) Ensure per-user outbound gateways is disabled (Manual)		
3.1.3.5.4	(L1) Ensure external recipient warnings are enabled (Manual)		
3.1.3.6	Spam, Phishing and Malware		
3.1.3.6.1	(L1) Ensure enhanced pre-delivery message scanning is enabled (Manual)		
3.1.3.6.2	(L1) Ensure spam filters are not bypased for internal senders (Manual)		
3.1.3.7	Compliance		
3.1.3.7.1	(L1) Ensure comprehensive mail storage is enabled (Manual)		
3.1.4	Google Chat and classic Hangouts		
3.1.4.1	Chat File Sharing		
3.1.4.1.1	(L1) Ensure external filesharing in Google Chat and Hangouts is disabled (Manual)		
3.1.4.1.2	(L2) Ensure internal filesharing in Google Chat and Hangouts is disabled (Manual)		
3.1.4.2	External Chat Settings		
3.1.4.2.1	(L1) Ensure warn users in Google Chat and Hangouts is enabled (Manual)		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains (Manual)		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
3.1.4.3	External Spaces		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted (Manual)		
3.1.4.4	Chat Apps		
3.1.4.4.1	(L1) Ensure allow users to install Chat apps is disabled (Manual)		
3.1.4.4.2	(L1) Ensure allow users to add and use incoming webhooks is disabled (Manual)		
3.1.5	Google Meet		
3.1.6	Groups for Business		
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private (Manual)		
3.1.6.2	(L1) Ensure creating groups is restricted (Manual)		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted (Manual)		
3.1.7	Sites		
3.1.7.1	(L1) Ensure service status for Google Sites is set to off (Manual)		
3.1.8	Additional Google services	•	
3.1.8.1	(L1) Ensure access to external Google Groups is OFF for Everyone (Manual)		
3.1.9	Google Workspace Marketplace		
3.1.9.1	Settings		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted (Manual)		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
4	Security		
4.1	Authentication		
4.1.1	2-Step Verification		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles (Manual)		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts (Manual)		
4.1.1.3	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users (Manual)		
4.1.2	Account Recovery	•	
4.1.2.1	(L1) Ensure Super Admin account recovery is enabled (Manual)		
4.1.2.2	(L1) Ensure User account recovery is enabled (Manual)		
4.1.3	Advanced Protection Program		
4.1.3.1	(L2) Ensure Advanced Protection Program is configured (Manual)		
4.1.4	Login Challenges		
4.1.4.1	(L2) Ensure login challenges are enforced (Manual)		
4.1.5	Password Management		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security (Manual)		
4.2	Access and Data Control		
4.2.1	API Controls		

CIS Benchmark Recommendation		_	et ectly
		Yes	No
4.2.1.1	(L2) Ensure application access to Google services is restricted (Manual)		
4.2.1.2	(L2) Review third-party applications periodically (Manual)		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs (Manual)		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically (Manual)		
4.2.2	Context-Aware Access		
4.2.2.1	(L1) Ensure blocking access from unapproved geographic locations (Manual)		
4.2.3	Data Protection		
4.2.3.1	(L1) Ensure DLP policies for Google Drive are configured (Manual)		
4.2.4	Google Session Control		
4.2.4.1	(L1) Ensure Google session control is configured (Manual)		
4.2.5	Google Cloud Session Control		
4.2.5.1	(L2) Ensure Google Cloud session control is configured (Manual)		
4.2.6	Less Secure Apps		
4.2.6.1	(L1) Ensure less secure app access is disabled (Manual)		
4.3	Security Center		
4.3.1	(L1) Ensure the Dashboard is reviewed regularly for anomalies (Manual)		
4.3.2	(L1) Ensure the Security health is reviewed regularly for anomalies (Manual)		

CIS Benchmark Recommendation		Set Correctly	
		Yes	No
5	Reporting		
5.1	Reports		
5.1.1	User Reports		
5.1.1.1	(L1) Ensure the App Usage Report is reviewed regularly for anomalies (Manual)		
5.1.1.2	(L1) Ensure the Security Report is reviewed regularly for anomalies (Manual)		
6	Rules		
6.1	(L1) Ensure User's password changed is configured (Manual)		
6.2	(L1) Ensure Government-backed attacks is configured (Manual)		
6.3	(L1) Ensure User suspended due to suspicious activity is configured (Manual)		
6.4	(L1) Ensure User granted Admin privilege is configured (Manual)		
6.5	(L1) Ensure Suspicious programmatic login is configured (Manual)		
6.6	(L1) Ensure Suspicious login is configured (Manual)		
6.7	(L1) Ensure Leaked password is configured (Manual)		
6.8	(L1) Ensure Gmail potential employee spoofing is configured (Manual)		

Appendix: CIS Controls v7 IG 1 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		
3.1.6.2	(L1) Ensure creating groups is restricted		

Recommendation		Set Correctly	
		Yes	No
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		

Appendix: CIS Controls v7 IG 2 Mapped Recommendations

Recommendation		Set Correctly	
		Yes	No
1.1.1	(L1) Ensure more than one Super Admin account exists		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.1.3.1	(L2) Ensure calendar web offline is disabled		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.2.2.2	(L1) Ensure desktop access to Drive is disabled		
3.1.2.2.3	(L1) Ensure Add-Ons is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		
3.1.3.1.2	(L1) Ensure offline access to Gmail is disabled		

	Recommendation	Se Corre	
		Yes	No
3.1.3.2.1	(L1) Ensure that DKIM is enabled for all mail enabled domains		
3.1.3.2.2	(L1) Ensure the SPF record is configured for all mail enabled domains		
3.1.3.2.3	(L1) Ensure the DMARC record is configured for all mail enabled domains		
3.1.3.4.1.1	(L1) Ensure protection against encrypted attachments from untrusted senders is enabled		
3.1.3.4.1.2	(L1) Ensure protection against attachments with scripts from untrusted senders is enabled		
3.1.3.4.1.3	(L1) Ensure protection against anomalous attachment types in emails is enabled		
3.1.3.4.2.1	(L1) Ensure link identification behind shortened URLs is enabled		
3.1.3.4.2.3	(L1) Ensure warning prompt is shown for any click on links to untrusted domains		
3.1.3.4.3.1	(L1) Ensure protection against domain spoofing based on similar domain names is enabled		
3.1.3.4.3.3	(L1) Ensure protection against inbound emails spoofing your domain is enabled		
3.1.3.4.3.4	(L1) Ensure protection against any unauthenticated emails is enabled		
3.1.3.4.3.5	(L1) Ensure groups are protected from inbound emails spoofing your domain		
3.1.3.5.1	(L2) Ensure POP and IMAP access is disabled for all users		
3.1.3.5.2	(L1) Ensure automatic forwarding options are disabled		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		
3.1.4.4.1	(L1) Ensure allow users to install Chat apps is disabled		
3.1.4.4.2	(L1) Ensure allow users to add and use incoming webhooks is disabled		
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		

	Recommendation	Se Corre	-
		Yes	No
3.1.6.2	(L1) Ensure creating groups is restricted		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.7.1	(L1) Ensure service status for Google Sites is set to off		
3.1.8.1	(L1) Ensure access to external Google Groups is OFF for Everyone		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts		
4.1.1.3	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users		
4.1.3.1	(L2) Ensure Advanced Protection Program is configured		
4.1.4.1	(L2) Ensure login challenges are enforced		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		
4.3.1	(L1) Ensure the Dashboard is reviewed regularly for anomalies		
4.3.2	(L1) Ensure the Security health is reviewed regularly for anomalies		
5.1.1.1	(L1) Ensure the App Usage Report is reviewed regularly for anomalies		
5.1.1.2	(L1) Ensure the Security Report is reviewed regularly for anomalies		

Appendix: CIS Controls v7 IG 3 Mapped Recommendations

	Recommendation	Se Corre	-
		Yes	No
1.1.1	(L1) Ensure more than one Super Admin account exists		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.1.3.1	(L2) Ensure calendar web offline is disabled		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.2.2.2	(L1) Ensure desktop access to Drive is disabled		
3.1.2.2.3	(L1) Ensure Add-Ons is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		
3.1.3.1.2	(L1) Ensure offline access to Gmail is disabled		

	Recommendation	Se Corre	
		Yes	No
3.1.3.2.1	(L1) Ensure that DKIM is enabled for all mail enabled domains		
3.1.3.2.2	(L1) Ensure the SPF record is configured for all mail enabled domains		
3.1.3.2.3	(L1) Ensure the DMARC record is configured for all mail enabled domains		
3.1.3.4.1.1	(L1) Ensure protection against encrypted attachments from untrusted senders is enabled		
3.1.3.4.1.2	(L1) Ensure protection against attachments with scripts from untrusted senders is enabled		
3.1.3.4.1.3	(L1) Ensure protection against anomalous attachment types in emails is enabled		
3.1.3.4.2.1	(L1) Ensure link identification behind shortened URLs is enabled		
3.1.3.4.2.3	(L1) Ensure warning prompt is shown for any click on links to untrusted domains		
3.1.3.4.3.1	(L1) Ensure protection against domain spoofing based on similar domain names is enabled		
3.1.3.4.3.3	(L1) Ensure protection against inbound emails spoofing your domain is enabled		
3.1.3.4.3.4	(L1) Ensure protection against any unauthenticated emails is enabled		
3.1.3.4.3.5	(L1) Ensure groups are protected from inbound emails spoofing your domain		
3.1.3.5.1	(L2) Ensure POP and IMAP access is disabled for all users		
3.1.3.5.2	(L1) Ensure automatic forwarding options are disabled		
3.1.3.6.1	(L1) Ensure enhanced pre-delivery message scanning is enabled		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		
3.1.4.4.1	(L1) Ensure allow users to install Chat apps is disabled		
3.1.4.4.2	(L1) Ensure allow users to add and use incoming webhooks is disabled		

	Recommendation	Se Corre	
		Yes	No
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		
3.1.6.2	(L1) Ensure creating groups is restricted		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.7.1	(L1) Ensure service status for Google Sites is set to off		
3.1.8.1	(L1) Ensure access to external Google Groups is OFF for Everyone		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts		
4.1.1.3	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users		
4.1.3.1	(L2) Ensure Advanced Protection Program is configured		
4.1.4.1	(L2) Ensure login challenges are enforced		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		
4.2.2.1	(L1) Ensure blocking access from unapproved geographic locations		
4.2.3.1	(L1) Ensure DLP policies for Google Drive are configured		
4.3.1	(L1) Ensure the Dashboard is reviewed regularly for anomalies		
4.3.2	(L1) Ensure the Security health is reviewed regularly for anomalies		

	Recommendation		et ectly
		Yes	No
5.1.1.1	(L1) Ensure the App Usage Report is reviewed regularly for anomalies		
5.1.1.2	(L1) Ensure the Security Report is reviewed regularly for anomalies		
6.2	(L1) Ensure Government-backed attacks is configured		
6.5	(L1) Ensure Suspicious programmatic login is configured		
6.6	(L1) Ensure Suspicious login is configured		

Appendix: CIS Controls v7 Unmapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.2.1.1	(L1) Ensure directory data access is externally restricted		
3.1.1.1.3	(L1) Ensure external invitation warnings for Google Calendar are configured		
3.1.2.1.1.1	(L1) Ensure users are warned when they share a file outside their domain		
3.1.2.1.1.4	(L2) Ensure users are warned when they share a file with users in an allowlisted domain		
3.1.2.1.2.1	(L1) Ensure users can create new shared drives		
3.1.2.2.1	(L1) Ensure offline access to documents is disabled		
3.1.3.3.1	(L1) Enable quarantine admin notifications for Gmail		
3.1.3.4.2.2	(L1) Ensure scan linked images for malicious content is enabled		
3.1.3.4.3.2	(L1) Ensure protection against spoofing of employee names is enabled		
3.1.3.5.3	(L1) Ensure per-user outbound gateways is disabled		
3.1.3.5.4	(L1) Ensure external recipient warnings are enabled		
3.1.3.6.2	(L1) Ensure spam filters are not bypased for internal senders		
3.1.3.7.1	(L1) Ensure comprehensive mail storage is enabled		
3.1.4.1.1	(L1) Ensure external filesharing in Google Chat and Hangouts is disabled		
3.1.4.1.2	(L2) Ensure internal filesharing in Google Chat and Hangouts is disabled		
3.1.4.2.1	(L1) Ensure warn users in Google Chat and Hangouts is enabled		
4.1.2.1	(L1) Ensure Super Admin account recovery is enabled		
4.1.2.2	(L1) Ensure User account recovery is enabled		
4.2.4.1	(L1) Ensure Google session control is configured		
4.2.5.1	(L2) Ensure Google Cloud session control is configured		

	Recommendation		et ectly
		Yes	No
4.2.6.1	(L1) Ensure less secure app access is disabled		
6.1	(L1) Ensure User's password changed is configured		
6.3	(L1) Ensure User suspended due to suspicious activity is configured		
6.4	(L1) Ensure User granted Admin privilege is configured		
6.7	(L1) Ensure Leaked password is configured		
6.8	(L1) Ensure Gmail potential employee spoofing is configured		

Appendix: CIS Controls v8 IG 1 Mapped Recommendations

Recommendation		Se	ectly
	T	Yes	No
1.1.1	(L1) Ensure more than one Super Admin account exists		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		

	Recommendation	Se Corre	
		Yes	No
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		
3.1.6.2	(L1) Ensure creating groups is restricted		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		
4.2.4.1	(L1) Ensure Google session control is configured		
4.2.5.1	(L2) Ensure Google Cloud session control is configured		

Appendix: CIS Controls v8 IG 2 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.1.1	(L1) Ensure more than one Super Admin account exists		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.1.3.1	(L2) Ensure calendar web offline is disabled		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.2.2.1	(L1) Ensure offline access to documents is disabled		
3.1.2.2.2	(L1) Ensure desktop access to Drive is disabled		
3.1.2.2.3	(L1) Ensure Add-Ons is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		

	Recommendation	Se Corre	
		Yes	No
3.1.3.1.2	(L1) Ensure offline access to Gmail is disabled		
3.1.3.2.1	(L1) Ensure that DKIM is enabled for all mail enabled domains		
3.1.3.2.2	(L1) Ensure the SPF record is configured for all mail enabled domains		
3.1.3.2.3	(L1) Ensure the DMARC record is configured for all mail enabled domains		
3.1.3.4.1.1	(L1) Ensure protection against encrypted attachments from untrusted senders is enabled		
3.1.3.4.1.2	(L1) Ensure protection against attachments with scripts from untrusted senders is enabled		
3.1.3.4.1.3	(L1) Ensure protection against anomalous attachment types in emails is enabled		
3.1.3.4.2.1	(L1) Ensure link identification behind shortened URLs is enabled		
3.1.3.4.2.3	(L1) Ensure warning prompt is shown for any click on links to untrusted domains		
3.1.3.4.3.1	(L1) Ensure protection against domain spoofing based on similar domain names is enabled		
3.1.3.4.3.3	(L1) Ensure protection against inbound emails spoofing your domain is enabled		
3.1.3.4.3.4	(L1) Ensure protection against any unauthenticated emails is enabled		
3.1.3.4.3.5	(L1) Ensure groups are protected from inbound emails spoofing your domain		
3.1.3.5.1	(L2) Ensure POP and IMAP access is disabled for all users		
3.1.3.5.2	(L1) Ensure automatic forwarding options are disabled		
3.1.4.1.1	(L1) Ensure external filesharing in Google Chat and Hangouts is disabled		
3.1.4.1.2	(L2) Ensure internal filesharing in Google Chat and Hangouts is disabled		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		

	Recommendation	Se Corre	
		Yes	No
3.1.4.4.1	(L1) Ensure allow users to install Chat apps is disabled		
3.1.4.4.2	(L1) Ensure allow users to add and use incoming webhooks is disabled		
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		
3.1.6.2	(L1) Ensure creating groups is restricted		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.7.1	(L1) Ensure service status for Google Sites is set to off		
3.1.8.1	(L1) Ensure access to external Google Groups is OFF for Everyone		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts		
4.1.1.3	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users		
4.1.3.1	(L2) Ensure Advanced Protection Program is configured		
4.1.4.1	(L2) Ensure login challenges are enforced		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		
4.2.4.1	(L1) Ensure Google session control is configured		
4.2.5.1	(L2) Ensure Google Cloud session control is configured		
4.3.1	(L1) Ensure the Dashboard is reviewed regularly for anomalies		

Recommendation		Se Corre	
		Yes	No
4.3.2	(L1) Ensure the Security health is reviewed regularly for anomalies		
5.1.1.1	(L1) Ensure the App Usage Report is reviewed regularly for anomalies		
5.1.1.2	(L1) Ensure the Security Report is reviewed regularly for anomalies		

Appendix: CIS Controls v8 IG 3 Mapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.1.1	(L1) Ensure more than one Super Admin account exists		
1.1.2	(L1) Ensure no more than 4 Super Admin accounts exist		
3.1.1.1.1	(L1) Ensure external sharing options for primary calendars are configured		
3.1.1.1.2	(L2) Ensure internal sharing options for primary calendars are configured		
3.1.1.2.1	(L1) Ensure external sharing options for secondary calendars are configured		
3.1.1.2.2	(L2) Ensure internal sharing options for secondary calendars are configured		
3.1.1.3.1	(L2) Ensure calendar web offline is disabled		
3.1.2.1.1.2	(L1) Ensure users cannot publish files to the web or make visible to the world as public or unlisted		
3.1.2.1.1.3	(L2) Ensure document sharing is being controlled by domain with allowlists		
3.1.2.1.1.5	(L1) Ensure Access Checker is configured to limit file access		
3.1.2.1.1.6	(L1) Ensure only users inside your organization can distribute content externally		
3.1.2.1.2.2	(L1) Ensure manager access members cannot modify shared drive settings		
3.1.2.1.2.3	(L1) Ensure shared drive file access is restricted to members only		
3.1.2.1.2.4	(L2) Ensure viewers and commenters ability to download, print, and copy files is disabled		
3.1.2.2.1	(L1) Ensure offline access to documents is disabled		
3.1.2.2.2	(L1) Ensure desktop access to Drive is disabled		
3.1.2.2.3	(L1) Ensure Add-Ons is disabled		
3.1.3.1.1	(L1) Ensure users cannot delegate access to their mailbox		

	Recommendation	Se Corre	
		Yes	No
3.1.3.1.2	(L1) Ensure offline access to Gmail is disabled		
3.1.3.2.1	(L1) Ensure that DKIM is enabled for all mail enabled domains		
3.1.3.2.2	(L1) Ensure the SPF record is configured for all mail enabled domains		
3.1.3.2.3	(L1) Ensure the DMARC record is configured for all mail enabled domains		
3.1.3.4.1.1	(L1) Ensure protection against encrypted attachments from untrusted senders is enabled		
3.1.3.4.1.2	(L1) Ensure protection against attachments with scripts from untrusted senders is enabled		
3.1.3.4.1.3	(L1) Ensure protection against anomalous attachment types in emails is enabled		
3.1.3.4.2.1	(L1) Ensure link identification behind shortened URLs is enabled		
3.1.3.4.2.3	(L1) Ensure warning prompt is shown for any click on links to untrusted domains		
3.1.3.4.3.1	(L1) Ensure protection against domain spoofing based on similar domain names is enabled		
3.1.3.4.3.3	(L1) Ensure protection against inbound emails spoofing your domain is enabled		
3.1.3.4.3.4	(L1) Ensure protection against any unauthenticated emails is enabled		
3.1.3.4.3.5	(L1) Ensure groups are protected from inbound emails spoofing your domain		
3.1.3.5.1	(L2) Ensure POP and IMAP access is disabled for all users		
3.1.3.5.2	(L1) Ensure automatic forwarding options are disabled		
3.1.3.6.1	(L1) Ensure enhanced pre-delivery message scanning is enabled		
3.1.4.1.1	(L1) Ensure external filesharing in Google Chat and Hangouts is disabled		
3.1.4.1.2	(L2) Ensure internal filesharing in Google Chat and Hangouts is disabled		
3.1.4.2.2	(L1) Ensure Google Chat externally is restricted to allowed domains		

	Recommendation	Se Corre	-
		Yes	No
3.1.4.3.1	(L1) Ensure external spaces in Google Chat and Hangouts are restricted		
3.1.4.4.1	(L1) Ensure allow users to install Chat apps is disabled		
3.1.4.4.2	(L1) Ensure allow users to add and use incoming webhooks is disabled		
3.1.6.1	(L1) Ensure accessing groups from outside this organization is set to private		
3.1.6.2	(L1) Ensure creating groups is restricted		
3.1.6.3	(L1) Ensure default for permission to view conversations is restricted		
3.1.7.1	(L1) Ensure service status for Google Sites is set to off		
3.1.8.1	(L1) Ensure access to external Google Groups is OFF for Everyone		
3.1.9.1.1	(L1) Ensure users access to Google Workspace Marketplace apps is restricted		
4.1.1.1	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users in administrative roles		
4.1.1.2	(L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts		
4.1.1.3	(L1) Ensure 2-Step Verification (Multi-Factor Authentication) is enforced for all users		
4.1.3.1	(L2) Ensure Advanced Protection Program is configured		
4.1.4.1	(L2) Ensure login challenges are enforced		
4.1.5.1	(L1) Ensure password policy is configured for enhanced security		
4.2.1.1	(L2) Ensure application access to Google services is restricted		
4.2.1.2	(L2) Review third-party applications periodically		
4.2.1.3	(L1) Ensure internal apps can access Google Workspace APIs		
4.2.1.4	(L2) Review domain-wide delegation for applications periodically		
4.2.3.1	(L1) Ensure DLP policies for Google Drive are configured		
4.2.4.1	(L1) Ensure Google session control is configured		

Recommendation			Set Correctly	
		Yes	No	
4.2.5.1	(L2) Ensure Google Cloud session control is configured			
4.3.1	(L1) Ensure the Dashboard is reviewed regularly for anomalies			
4.3.2	(L1) Ensure the Security health is reviewed regularly for anomalies			
5.1.1.1	(L1) Ensure the App Usage Report is reviewed regularly for anomalies			
5.1.1.2	(L1) Ensure the Security Report is reviewed regularly for anomalies			

Appendix: CIS Controls v8 Unmapped Recommendations

	Recommendation	Se Corre	
		Yes	No
1.2.1.1	(L1) Ensure directory data access is externally restricted		
3.1.1.1.3	(L1) Ensure external invitation warnings for Google Calendar are configured		
3.1.2.1.1.1	(L1) Ensure users are warned when they share a file outside their domain		
3.1.2.1.1.4	(L2) Ensure users are warned when they share a file with users in an allowlisted domain		
3.1.2.1.2.1	(L1) Ensure users can create new shared drives		
3.1.3.3.1	(L1) Enable quarantine admin notifications for Gmail		
3.1.3.4.2.2	(L1) Ensure scan linked images for malicious content is enabled		
3.1.3.4.3.2	(L1) Ensure protection against spoofing of employee names is enabled		
3.1.3.5.3	(L1) Ensure per-user outbound gateways is disabled		
3.1.3.5.4	(L1) Ensure external recipient warnings are enabled		
3.1.3.6.2	(L1) Ensure spam filters are not bypased for internal senders		
3.1.3.7.1	(L1) Ensure comprehensive mail storage is enabled		
3.1.4.2.1	(L1) Ensure warn users in Google Chat and Hangouts is enabled		
4.1.2.1	(L1) Ensure Super Admin account recovery is enabled		
4.1.2.2	(L1) Ensure User account recovery is enabled		
4.2.2.1	(L1) Ensure blocking access from unapproved geographic locations		
4.2.6.1	(L1) Ensure less secure app access is disabled		
6.1	(L1) Ensure User's password changed is configured		
6.2	(L1) Ensure Government-backed attacks is configured		
6.3	(L1) Ensure User suspended due to suspicious activity is configured		

Recommendation		Set Correctly	
		Yes	No
6.4	(L1) Ensure User granted Admin privilege is configured		
6.5	(L1) Ensure Suspicious programmatic login is configured		
6.6	(L1) Ensure Suspicious login is configured		
6.7	(L1) Ensure Leaked password is configured		
6.8	(L1) Ensure Gmail potential employee spoofing is configured		

Appendix: Change History

Date	Version	Changes for this version
Nov 27, 2022	1.1.0	NEW - (L1) Ensure users are warned when they share a file outside their domain (Ticket 17089)
Nov 27, 2022	1.1.0	NEW - (L1) Ensure Access Checker is configured to limit file access (Ticket 17091)
Nov 27, 2022	1.1.0	NEW - (L1) Ensure offline access to documents is disabled (Ticket 16316)
Nov 27, 2022	1.1.0	NEW - (L1) Ensure spam filters are not bypased for internal senders (Ticket 16241)
Nov 27, 2022	1.1.0	NEW - (L1) Ensure comprehensive mail storage is enabled (Ticket 16240)
Nov 30, 2022	1.1.0	NEW - (L2) Ensure viewers and commenters ability to download, print, and copy files is disabled (Ticket 17084)
Nov 30, 2022	1.1.0	NEW - (L1) Ensure blocking access from unapproved locations (Ticket 16012)
Dec 5, 2022	1.1.0	NEW - (L1) Ensure external recipient warnings are enabled (Ticket 16243)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure more than one Super Admin account exists (Ticket 17283)
Jan 8, 2023	1.1.0	DELETE - (L1) Ensure link sharing default settings are configured (Ticket 17085)
Jan 8, 2023	1.1.0	UPDATE - (L1) Ensure manager access members cannot modify shared drive settings (Ticket 17302)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure desktop access to Drive is disabled (Ticket 17303)
Jan 8, 2023	1.1.0	UPDATE - (L2) Ensure Google Cloud session control is configured (Ticket 15977)

Date	Version	Changes for this version
Jan 8, 2023	1.1.0	NEW - (L2) Ensure calendar web offline is disabled (Ticket 17083)
Jan 8, 2023	1.1.0	DELETE - (L1) Ensure Gmail labs is not enabled (Ticket 16165)
Jan 8, 2023	1.1.0	UPDATE - (L1) Ensure password policy is configured for enhanced security (Ticket 15975)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure enhanced pre-delivery message scanning is enabled (Ticket 16242)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure offline access to Gmail is disabled (Ticket 17129)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure no more than 4 Super Admin accounts exist (Ticket 17284)
Jan 8, 2023	1.1.0	NEW - (L2) Ensure hardware security keys are used for all users in administrative roles and other high-value accounts (Ticket 17285)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Super Admin account recovery is enabled (Ticket 17286)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure User account recovery is enabled (Ticket 17287)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure internal apps can access Google Workspace APIs (Ticket 17288)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure the Dashboard is reviewed regularly for anomalies (Ticket 17289)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Gmail potential employee spoofing is configured (Ticket 17300)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Leaked password is configured (Ticket 17299)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Suspicious login is configured (Ticket 17298)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Suspicious programmatic login is configured (Ticket 17297)

Date	Version	Changes for this version
Jan 8, 2023	1.1.0	NEW - (L1) Ensure User granted Admin privilege is configured (Ticket 17296)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure User suspended due to suspicious activity is configured (Ticket 17295)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Government-backed attacks is configured (Ticket 17294)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure User's password changed is configured (Ticket 17293)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure the Security Report is reviewed regularly for anomalies (Ticket 17292)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure the App Usage Report is reviewed regularly for anomalies (Ticket 17291)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure the Security health is reviewed regularly for anomalies (Ticket 17290)
Jan 8, 2023	1.1.0	NEW - (L2) Ensure users are warned when they share a file with users in an allowlisted domain (Ticket 17301)
Jan 8, 2023	1.1.0	NEW - (L1) Ensure Add-Ons is disabled (Ticket 17305)
Jan 30, 2023	1.1.0	UPDATE - (L2) Ensure document sharing is being controlled by domain with allowlists (Ticket 17090)
Jan 30, 2023	1.1.0	UPDATE - (L1) Ensure 2-Step Verification (Multi- Factor Authentication) is enforced for all users (Manual) (Ticket 17468)
Jan 30, 2023	1.1.0	UPDATE - (L1) Ensure automatic forwarding options are disabled (Manual) (Ticket 17467)
Feb 2, 2023	1.1.0	NEW - (L1) Ensure external filesharing in Google Chat and Hangouts is disabled (Ticket 17127)
Feb 2, 2023	1.1.0	NEW - (L2) Ensure internal filesharing in Google Chat and Hangouts is disabled (Ticket 17128)