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Audit logs for Google Workspace



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This document provides a conceptual overview of the audit logs that Google Workspace provides as a part of Cloud Audit Logs.

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If you don't enable Google Workspace data sharing with Google Cloud, then you can't see audit logs for Google Workspace in Google Cloud.

★ **Note:** Some Enterprise Groups Audit membership changes automatically populate the `principalEmail` field in the audit log with `cloud-support@google.com`. For example, an audit log might show `cloud-support@google.com` as the principal removing a user from the group, when the removal of the user is automatic due to the expiration of a user's membership.

Types of audit logs

[Admin Activity audit logs](#) contain log entries for API calls or other actions that modify the configuration or metadata of resources. For example, these logs record when users create VM instances or change Identity and Access Management (IAM) permissions.

[Data Access audit logs](#) contain API calls that read the configuration or metadata of

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captured in the Google Workspace Enterprise Groups Audit logs. When you use the Google Admin console, changes to Group settings are captured in the Google Workspace Admin Audit logs. For example, if you changed a Group email address in groups.google.com, then those changes are captured in Google Workspace Enterprise Groups Audit logs.

- **Google Workspace Enterprise Groups Audit:** Enterprise Groups Audit logs provide a record of actions performed on groups and group memberships. For example, you can see when an administrator added a user or when a group owner deleted their group.

Enterprise Groups Audit writes Admin Activity audit logs only.

- **Google Workspace Login Audit:** Login Audit logs track user sign-ins to your domain. These logs only record the login event. They don't record which system was used to perform the login action.

Login Audit writes Data Access audit logs only.



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Google Workspace Admin Activities



Google Workspace Admin Audit audit logs use the resource type `audited_resource` for all audit logs.

Google Workspace Admin Audit audit logs use the service name `admin.googleapis.com`.

Google Workspace Admin Audit writes Admin Activity audit logs only. The following are the audited operations:

Activity type	AuditLog.method_name
AI_CLASSIFICATION_SETTINGS	<code>google.admin.AdminService.aiClassificationInsufficientTrainingE</code> <code>google.admin.AdminService.aiClassific</code> <code>google.admin.AdminService.aiClassific</code>

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CALENDAR_SETTINGS

google.admin.AdminService.createManag
google.admin.AdminService.deleteManag
google.admin.AdminService.updateManag
google.admin.AdminService.
flashlightEduNonFeaturedServicesSelec

google.admin.AdminService.createBuild
google.admin.AdminService.deleteBuild
google.admin.AdminService.updateBuild
google.admin.AdminService.createCalen
google.admin.AdminService.deleteCalen
google.admin.AdminService.createCalen
google.admin.AdminService.deleteCalen
google.admin.AdminService.updateCalen
google.admin.AdminService.renameCalen
google.admin.AdminService.updateCalen
google.admin.AdminService.changeCalen
google.admin.AdminService.cancelCalen
google.admin.AdminService.releaseCalen

CHAT_SETTINGS

google.admin.AdminService.meetInteron

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	<div>google.admin.AdminService.createRole</div> <div>google.admin.AdminService.deleteRole</div> <div>google.admin.AdminService.addPrivilege</div> <div>google.admin.AdminService.removePrivilege</div> <div>google.admin.AdminService.renameRole</div> <div>google.admin.AdminService.updateRole</div> <div>google.admin.AdminService.unassignRole</div>
DEVICE_SETTINGS	<div>google.admin.AdminService.deleteDevice</div> <div>google.admin.AdminService.moveDeviceTo</div>
DOCS_SETTINGS	<div>google.admin.AdminService.transferDoc</div> <div>google.admin.AdminService.driveDataRe</div> <div>google.admin.AdminService.changeDocsS</div>
DOMAIN_SETTINGS	<div>google.admin.AdminService.changeAccou</div> <div>google.admin.AdminService.addApplicat</div> <div>google.admin.AdminService.addApplicat</div> <div>google.admin.AdminService.changeAdver</div> <div>google.admin.AdminService.createAlert</div> <div>google.admin.AdminService.changeAlert</div>

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```
google.admin.AdminService.toggleSsoEn
google.admin.AdminService.changeCusto
google.admin.AdminService.
changeDataLocalizationForRussia
google.admin.AdminService.changeDataL
google.admin.AdminService.
changeDataProtectionOfficerContactInfo
google.admin.AdminService.deletePlayFi
google.admin.AdminService.viewDnsLogi
google.admin.AdminService.changeDomain
google.admin.AdminService.changeDomain
google.admin.AdminService.changeDomain
google.admin.AdminService.toggleEnabl
google.admin.AdminService.changeDomain
google.admin.AdminService.addTrustedDo
google.admin.AdminService.removeTrust
google.admin.AdminService.changeEduTy
google.admin.AdminService.toggleEnabl
google.admin.AdminService.toggleSsoEn
google.admin.AdminService.toggleSsl
google.admin.AdminService
```

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EMAIL_SETTINGS

google.admin.AdminService.createRule
google.admin.AdminService.changeRuleC
google.admin.AdminService.deleteRule
google.admin.AdminService.renameRule
google.admin.AdminService.ruleStatusCl
google.admin.AdminService.addSecondary
google.admin.AdminService.removeSecon
google.admin.AdminService.skipSeconda
google.admin.AdminService.verifySecon
google.admin.AdminService.verifySecon
google.admin.AdminService.updateDomain
google.admin.AdminService.changeSsoSe
google.admin.AdminService.generatePin
google.admin.AdminService.updateRule

google.admin.AdminService.dropFromQua
google.admin.AdminService.emailLogSea
google.admin.AdminService.emailUndele
google.admin.AdminService.changeEmail
google.admin.AdminService.chanqeGmail

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LICENSES_SETTINGS

google.admin.AdminService.labelPermis
google.admin.AdminService.labelPermis
google.admin.AdminService.labelPublis
google.admin.AdminService.labelCreate
google.admin.AdminService.labelUpdate

google.admin.AdminService.orgUsersLic
google.admin.AdminService.orgAllUsers
google.admin.AdminService.userLicense
google.admin.AdminService.changeLicen
google.admin.AdminService.userLicense
google.admin.AdminService.orgLicenseR
google.admin.AdminService.userLicense
google.admin.AdminService.updateDynam
google.admin.AdminService.licenseUsag

MOBILE_SETTINGS

google.admin.AdminService.actionCance
google.admin.AdminService.actionReque
google.admin.AdminService.addMobileCe
google.admin.AdminService.companyDevi

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ORG_SETTINGS

google.admin.AdminService.
enrollForGoogleDeviceManagement
google.admin.AdminService.useGoogleMol
google.admin.AdminService.
useGoogleMobileManagementForNonIos
google.admin.AdminService.
useGoogleMobileManagementForIos
google.admin.AdminService.mobileAccou
google.admin.AdminService.
mobileDeviceCancelWipeThenApprove
google.admin.AdminService.
mobileDeviceCancelWipeThenBlock

google.admin.AdminService.chromeLicen
google.admin.AdminService.
chromeApplicationLicenseReservationCro
google.admin.AdminService.
chromeApplicationLicenseReservationDe
google.admin.AdminService.
chromeApplicationLicenseReservationUp

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```
google.admin.AdminService.  
securityInvestigationChartCreate  
google.admin.AdminService.  
securityInvestigationContentAccess  
google.admin.AdminService.  
securityInvestigationDownloadAttachment  
google.admin.AdminService.  
securityInvestigationExportActionResult  
google.admin.AdminService.  
securityInvestigationExportQuery  
google.admin.AdminService.  
securityInvestigationObjectCreateDraft  
google.admin.AdminService.  
securityInvestigationObjectDeleteInvestigation  
google.admin.AdminService.  
securityInvestigationObjectDuplicateInvestigation  
google.admin.AdminService.  
securityInvestigationObjectOwnershipTransfer  
google.admin.AdminService.  
securityInvestigationObjectSaveInvestigation  
google.admin.AdminService.
```



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SITES_SETTINGS

```
google.admin.AdminService.  
changeTwoStepVerificationGracePeriodD  
google.admin.AdminService.  
changeTwoStepVerificationStartDate  
google.admin.AdminService.disallowSer  
google.admin.AdminService.  
enableNonAdminUserPasswordRecovery  
google.admin.AdminService.enforceStro  
google.admin.AdminService.removeFromT  
google.admin.AdminService.sessionCont  
google.admin.AdminService.toggleCaaEn  
google.admin.AdminService.trustDomain  
google.admin.AdminService.unblockOnDe  
google.admin.AdminService.untrustDoma  
google.admin.AdminService.  
updateErrorMsgForRestrictedOauth2Apps  
google.admin.AdminService.  
weakProgrammaticLoginSettingsChanged  
  
google.admin.AdminService.addWebAddre  
google.admin.AdminService.deleteWebAd
```

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google.admin.AdminService.changeUserO
google.admin.AdminService.changeUserPl
google.admin.AdminService.changeRecov
google.admin.AdminService.changeRecov
google.admin.AdminService.changeUserR
google.admin.AdminService.changeUserA
google.admin.AdminService.createEmail
google.admin.AdminService.createDataT
google.admin.AdminService.grantDelega
google.admin.AdminService.deleteAccou
google.admin.AdminService.deleteEmail
google.admin.AdminService.deleteMailb
google.admin.AdminService.changeFirstl
google.admin.AdminService.gmailResetU
google.admin.AdminService.changeLastN
google.admin.AdminService.mailRoutingl
google.admin.AdminService.mailRoutingl
google.admin.AdminService.addNickname
google.admin.AdminService.removeNickn
google.admin.AdminService.changePassw

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google.admin.AdminService.
userPutInTwoStepVerificationGracePeriod
google.admin.AdminService.renameUser
google.admin.AdminService.unenrollUser
google.admin.AdminService.suspendUser
google.admin.AdminService.unarchiveUser
google.admin.AdminService.undeleteUser
google.admin.AdminService.unsuspendUser
google.admin.AdminService.upgradeUser
google.admin.AdminService.usersBulkUp
google.admin.AdminService.
usersBulkUploadNotificationSent

Google Workspace Enterprise Groups



Google Workspace Login Audit





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Audit log format

Google Workspace audit log entries include the following objects:

- The log entry itself, which is an object of type `LogEntry`. When examining audit logging data, you might find the following useful:
 - `logName` contains the organization ID and audit log type.
 - `resource` contains the target of the audited operation.
 - `timeStamp` contains the time of the audited operation.
 - `protoPayload` contains the Google Workspace audit log in its `metadata` field.

The `protoPayload.metadata` field holds the audited Google Workspace information. The following is an example of a Login Audit log:



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```
    },
    {
      "name": "login_challenge_method",
      "type": "TYPE_STRING",
      "label": "LABEL_REPEATED",
      "multiStrValue": [
        "password",
        "idv_preregistered_phone",
        "idv_preregistered_phone"
      ]
    },
  ],
}
],
"activityId": {
  "uniqQualifier": "358068855354",
  "timeUsec": "1632500217183212"
},
"@type": "type.googleapis.com/ccc_hosted_reporting.ActivityProto"
}
```


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Route audit logs

You can route Google Workspace audit logs from Cloud Logging to supported destinations, including other Logging buckets.

Here are some applications for routing audit logs:

- To use more powerful search capabilities, you can route copies of your audit logs to Cloud Storage, BigQuery, or Pub/Sub. Using Pub/Sub, you can route to other applications, other repositories, and to third parties.
- To manage your audit logs across an entire organization, you can create [aggregated sinks](#) that combine and route logs from all the Google Cloud projects, billing accounts, and folders contained by your organization. For instance, you might aggregate and route audit log entries from an organization's folders to a Cloud Storage bucket.

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You can configure Cloud Logging to retain the logs in the `_Default` logs bucket for a period ranging from 1 day to 3650 days.

To update the retention period for the `_Default` logs bucket, see [Custom retention](#).

You can't change the retention period on the `_Required` bucket.

Quotas and limits

The same quotas apply to audit logs for Google Workspace and Cloud Audit Logs.

For details about these usage limits, including the maximum sizes of audit logs, see [Quotas and limits](#).

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Multicloud		Smart analytics	Google Cloud Marketplace	Events
Global infrastructure		Artificial Intelligence	Learn about cloud computing	Podcasts
Customers and case studies		Security	Support	Developer Center
		Productivity & work		Press Corner
				Google Cloud on YouTube



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