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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	google.admin.AdminService. aiClassificationInsufficientTrainingE: google.admin.AdminService.aiClassific: google.admin.AdminService.aiClassific:

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

CALENDAR_SETTINGS

```
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.releaseCale
```

CHAT_SETTINGS   google.admin.AdminService.meetInterop

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	google.admin.AdminService.createRole
	google.admin.AdminService.deleteRole
	google.admin.AdminService.addPrivilege
	google.admin.AdminService.removePrivil
	google.admin.AdminService.renameRole
	google.admin.AdminService.updateRole
	google.admin.AdminService.unassignRole
DEVICE_SETTINGS	google.admin.AdminService.deleteDevic
	google.admin.AdminService.moveDeviceT
DOCS_SETTINGS	google.admin.AdminService.transferDocu
	google.admin.AdminService.driveDataRe
	google.admin.AdminService.changeDocsS
DOMAIN_SETTINGS	google.admin.AdminService.changeAccou
	google.admin.AdminService.addApplicati
	google.admin.AdminService.addApplicati
	google.admin.AdminService.changeAdver
	google.admin.AdminService.createAlert
	google.admin.AdminService.changeAlert

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https://cloud.google.com/logging/docs/audit/gsuite-audit-logging#3

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```
google.admin.AdminService.toggleSecur
google.admin.AdminService.changeCustor
google.admin.AdminService.
changeDataLocalizationForRussia
google.admin.AdminService.changeDataLo
google.admin.AdminService.
changeDataProtectionOfficerContactInfo
google.admin.AdminService.deletePlayFo
google.admin.AdminService.viewDnsLogin
google.admin.AdminService.changeDomain
google.admin.AdminService.changeDomain
google.admin.AdminService.changeDomain
google.admin.AdminService.toggleEnable
google.admin.AdminService.changeDomain
google.admin.AdminService.addTrustedDo
google.admin.AdminService.removeTruste
google.admin.AdminService.changeEduTyp
google.admin.AdminService.toggleEnable
google.admin.AdminService.toggleSsoEna
google.admin.AdminService.toggleSsl
google.admin.AdminService.
```

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google.admin.AdminService.ruleActions
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

EMAIL_SETTINGS   google.admin.AdminService.dropFromQua
google.admin.AdminService.emailLogSea
google.admin.AdminService.emailUndele
google.admin.AdminService.changeEmailS
google.admin.AdminService.changeGmailS

```
google.admin.AdminService.labelPermiss
google.admin.AdminService.labelPermiss
google.admin.AdminService.labelPublisl
google.admin.AdminService.labelCreated
google.admin.AdminService.labelUpdated
```

LICENSES_SETTINGS

```
google.admin.AdminService.orgUsersLic
google.admin.AdminService.orgAllUsersl
google.admin.AdminService.userLicense/
google.admin.AdminService.changeLicen:
google.admin.AdminService.userLicensel
google.admin.AdminService.orgLicenseR
google.admin.AdminService.userLicensel
google.admin.AdminService.updateDynam:
google.admin.AdminService.licenseUsag
```

MOBILE_SETTINGS

```
google.admin.AdminService.actionCancel
google.admin.AdminService.actionReques
google.admin.AdminService.addMobileCe
google.admin.AdminService.companyDevi
```

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google.admin.AdminService.removeMobile
google.admin.AdminService.
enrollForGoogleDeviceManagement
google.admin.AdminService.useGoogleMob
google.admin.AdminService.
useGoogleMobileManagementForNonIos
google.admin.AdminService.
useGoogleMobileManagementForIos
google.admin.AdminService.mobileAccou
google.admin.AdminService.
mobileDeviceCancelWipeThenApprove
google.admin.AdminService.
mobileDeviceCancelWipeThenBlock

ORG_SETTINGS
google.admin.AdminService.chromeLicens
google.admin.AdminService.
chromeApplicationLicenseReservationCr
google.admin.AdminService.
chromeApplicationLicenseReservationDe
google.admin.AdminService.
chromeApplicationLicenseReservationUp

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google.admin.AdminService.
securityInvestigationChartCreate
google.admin.AdminService.
securityInvestigationContentAccess
google.admin.AdminService.
securityInvestigationDownloadAttachmer
google.admin.AdminService.
securityInvestigationExportActionResu
google.admin.AdminService.
securityInvestigationExportQuery
google.admin.AdminService.
securityInvestigationObjectCreateDraf
google.admin.AdminService.
securityInvestigationObjectDeleteInve
google.admin.AdminService.
securityInvestigationObjectDuplicateI
google.admin.AdminService.
securityInvestigationObjectOwnershipT
google.admin.AdminService.
securityInvestigationObjectSaveInvest
google.admin.AdminService.

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```
google.admin.AdminService.
changeTwoStepVerificationGracePeriodD
google.admin.AdminService.
changeTwoStepVerificationStartDate
google.admin.AdminService.disallowServ
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
```

SITES_SETTINGS

```
google.admin.AdminService.addWebAddre
google.admin.AdminService.deleteWebAd
```
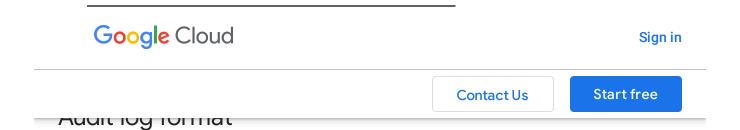
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```
google.admin.AdminService.changeUserL
google.admin.AdminService.changeUserO
google.admin.AdminService.changeUserPl
google.admin.AdminService.changeRecove
google.admin.AdminService.changeRecove
google.admin.AdminService.changeUserR
google.admin.AdminService.changeUserA
google.admin.AdminService.createEmaill
google.admin.AdminService.createDataT
google.admin.AdminService.grantDelega
google.admin.AdminService.deleteAccou
google.admin.AdminService.deleteEmaill
google.admin.AdminService.deleteMailbo
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.
userPutInTwoStepVerificationGracePeri
google.admin.AdminService.renameUser
google.admin.AdminService.unenrollUse
google.admin.AdminService.suspendUser
google.admin.AdminService.unarchiveUs
google.admin.AdminService.undeleteUse
google.admin.AdminService.unsuspendUs
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:

```
          },
          {
            "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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Cloud

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Global
infrastructure

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case studies

Analyst reports

Whitepapers

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Workspace
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Infrastructure
modernization

Databases

Application
modernization

Smart analytics

Artificial
Intelligence

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work
transformation

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