Ministerie van Justitie en Veiligheid

Updated verification report Google Workspace Enterprise

Verification of agreed remediation measures

Public version

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Colophon

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Summary

In July 2021 the Dutch government strategic vendor manager for Microsoft, Google Cloud and Amazon Web Services Rijk (hereafter: SLM Rijk[1]) negotiated an improved agreement with Google for Workspace Enterprise, with an amendment on the data processing agreement (the Google Cloud Master Agreement with the Dutch government). SLM has collaborated closely with SURF[2] and SIVON[3], the IT cooperations for schools, universities and research institutions in the Netherlands. In August 2021 they published an Update DPIA report with agreed remediation measures to mitigate the remaining high risks.

At the request of SLM Rijk Privacy Company has verified if Google has taken the agreed remediation measures. In June 2023 Privacy Company concluded that Google had effectively mitigated the high risks, or reduced them to a low risk. The identification and mitigation of two risks related to transfers of personal data to (subprocessors in) third countries was postponed until after the summer of 2023. SLM Rijk have analysed those transfer risks in a separate project with Google, together with SURF and SIVON. This has resulted in a separate Data Transfer Impact Assessment (DTIA) on the use of the videoconferencing tool Meet (one of the core applications in Workspace Enterprise).

During the verification of the implementation of the agreed remediation measures, the researchers came across a number of potential new risks. The Dutch government and education sector have discussed these issues separately with Google as part of a structural dialogue about compliance. This has resulted in a separate report about the new findings. Since Google has implemented or committed to implement mitigating measures, these five findings do not result in a high risk if government organisations take the recommended mitigating measures.

Conclusion: 9 high risks mitigated or reduced to low risk
The table below gives an assessment in colours. All boxes are green, including the two boxes with regard to transfers of personal data to third countries.

Table 1:initial 9 high risks identified in the Update DPIA, agreed measures Google, and verification results

No.	Risk	Agreed mitigating measure Google	Factual measure
1, 2	**Lack of purpose limitation Customer and Service Data**	Google will only process Customer Personal Data and Diagnostic Data (including Account Data) as data processor, for three purposes, when necessary: *1. to provide, maintain and improve the Services and Technical Support Services (TSS) subscribed to by Customer;* *2. to identify, address and fix security threats, risks, bugs and other anomalies* 3. *to develop, deliver and install updates to the Services subscribed to*	Risk mitigated by contractual measures in Google Cloud Master Agreement with the Dutch government.

[1] SLM Microsoft, Google Cloud en Amazon Web Services, URL: https://slmmicrosoftrijk.nl/.
[2] SURF, Google Workspace in Education, URL: https://www.surf.nl/en/google-workspace-in-education .
[3] SIVON, Update Google Workspace for Education, URL: https://sivon.nl/update-google-workspace-for-education/ .

		by Customer (including new functionality related to the Services subscribed to by Customer).	
		Google will not process Customer Personal Data and/or Service Data for advertising purposes or for profiling, data analytics and market research.	Risk mitigated by contractual measures in Google Cloud Master Agreement with the Dutch government.
		7 purposes identified for which Google may further process Diagnostic Data as independent data controller. 1. billing and account management and customer relationship management and related correspondence with Customers and Customer Administrators; 2. improving and optimizing the performance and core functionality of accessibility, privacy, security and IT infrastructure efficiency of the Cloud Services and TSS; 3. internal reporting, financial reporting, revenue planning, capacity planning and forecast modelling (including product strategy); 4. abuse detection, prevention and protection (such as automatic scanning for matches with identifiers of CSAM, virus scanning and scanning to detect AUP violations); 5. processing of Personal Data in support tickets and support requests (including corresponding with Customers and Customer Administrators, and any attachments thereto) sent by Administrators to Google; 6. receiving and using Feedback; and 7. complying with legal obligations. For clarity, **the rendering of TSS is a processor activity**. Google will ensure that **the 17 purposes in the Google Cloud Privacy Notice will not apply to the use of Workspace by Dutch government organisations.** With regard to content scanning for Child Sexual Abuse Material (CSAM) and reporting 'hits' to NCMEC, Google will comply with applicable regulatory guidance from the EDPB.	* **Note**: Google writes in the GCPN addendum that it may use Service Data to make recommendations about related products (i.e. products that are not subscribed to by the Customer), which is not allowed under the Privacy Amendment. Low risk because the terms in the Privacy Amendment prevail over information from Google.
		Google assures that machine learning to improve the contents of data collected with the Spelling and Grammar check are limited to within the customer's own domain.	Google writes in its Workspace for Enterprise Data Protection Implementation Guide: "*It is important to highlight that your Customer Data is not used to improve Spelling & grammar services for other customers' accounts*."
		Definition of anonymisation included in the Google Cloud Master Agreement with the Dutch government, in accordance with WP29 guidance on anonymisation techniques.	Risk mitigated by contractual measures in Google Cloud Master Agreement with the Dutch government.
		The framework contract specifies how Google deals with *gagging orders* when ordered to disclose Content and	In Google Cloud Master Agreement with the Dutch government and information in public whitepaper.

		Diagnostic Data to law enforcement authorities.	
		Google will switch the default setting for Ads Personalization to Off for new end users (relevant for the use of *Additional Services*).	Correct default setting in Workspace for Enterprise for new users.
3, 4, 7[4]	**Lack of transpa-rency Customer and Service Data**	Google will develop an inspection tool to provide access for admins to the Telemetry Data, including use of Features	Google has developed a Diagnostic Information Tool (DIT) that shows telemetry events (which may include Content Data). The time period of access only covers the last 24 hours, due to long recovery time. Additionally, Dutch admins can ask for older Telemetry Data in reply to a data subject access request.
		Google will publish a Help Center article detailing categories and purposes of the processing of diagnostic data (including data collected from cloud servers and telemetry events (atoms) from Android	Google has published a new explanation page about the DIT and the contents of the Telemetry Data. This page includes a general description of the retention periods. "*We retain most types of Service Data for a set period of up to 180 days*. (...) *In practice, diagnostic information is retained for shorter periods of between 30 to 63 days.* Google also refers to its Google Cloud Privacy Notice. This describes the 3 criteria Google applies to retain Service Data longer. These are: 1. *Security, fraud and abuse prevention,* 2. *Complying with legal or regulatory requirements and* 3. *Complying with tax, accounting or financial requirements*
		Google confirmed that all subprocessors that process Diagnostic Data also process Customer Data and are therefore already included in the list of subprocessors for Customer Data. Google will provide details about its subprocessors, in particular for the Diagnostic Data. Google will specify ○ full entity name, ○ relevant Service(s), ○ location(s) where the data are processed, ○ activity (i.e., what does the subprocessor do, ○ whether the subprocessor processes Service Data in temporary, personal and/or archive logs.	Google has expanded the information about its subprocessors and affiliates, what personal data they can access for what purposes. The list of subprocessors includes companies and affiliates in two lists of third countries. Google has provided the agreed extra information about the subprocessors to SLM Rijk and has cooperated with the DTIA to assess the risks of transfer to third countries. The DTIA concludes that there are no high transfer risks for any personal data via Meet, provided that government organisations select storage in the EU of Content Data. If they want to exchange special categories of data via Meet, they must apply Client Side Encryption to exclude the risk of unauthorised access to these data in 7 third countries.

[4] The risks were: Lack of Transparency Customer Data, Lack of Transparency Diagnostic Data, Lack of control third parties / processors.

		Google will show an end user profile picture on the landing page for all Workspace Core Services (both web and mobile). This picture will disappear when the end user leaves the privacy protected Workspace services. Google commits to automatically log out regular Workspace-accounts when they visit disabled *Additional Services*.	Google has applied the agreed measures.
		Google will make all relevant legal information about the Google Workspace-account permanently available in an end user notice.	The pop-up is improved and personalised. However, the relevant legal information is not permanently available through log-in or the (general) Google Account menu. Google has committed to make certain UI changes by [**date confidential**].
		Google will develop a Domain Wide Takeout capability to individual user level/org unit level.	Google has published information about the organisational Data Export at https://support.google.com/a/answer/12940323 and https://support.google.com/a/answer/100458 Data must be exported to the Google Cloud Platform. Google has ensured that the admin must accept the (processor) conditions from the (Google) Cloud Data Processing Addendum. For this use case GCP is not a Workspace *Additional Service*.
		Google provides a new warning to end users in the Feedback form not to share sensitive data with Google	Google shows a pop-up with a warning.
		Google will improve its explanation to admins in the Data Protection Implementation Guide that Google processes Account Data as a processor when the Google Account is used in the Core Services.	Google does offer an explanation.
		Google will expand the availability of admin audit logs to cover all Core Services.	Google provides many more audit logs, in conformity with remediation plan, to the extent tested by Privacy Company.
5, 6	**No legal ground for Google and schools/universities + Missing privacy controls**	With regard to the (separate) legal ground for the reading of cookie and telemetry data from end-user devices, as defined in the ePrivacy Directive, Google will follow regulatory guidance.	Google explains the necessity of the inclusion of Content Data in telemetry events about Spelling and grammar telemetry events in a separate topic on the new DIT information page, under *Spelling and grammar suggestions*. It is plausible that this data collection is exempted from consent under the Dutch analytical consent-exception.
		Google agrees contractually that end user consent is not applicable as ground for sharing Service Data with third parties when those parties' services are disabled by Customer (including Google as 3d party for *Additional Services*).	Included in the Google Cloud Master Agreement with the Dutch government.
		Google will automatically log-out Workspace end users when they access (**enabled**) *Additional Services*.	Admins can disable access to all *Additional Services*.
		Google has become a data processor for the Diagnostic Data, and for	Google is data processor for the provision of TSS according to

		providing support, but not for the Feedback Data. Government organisations are advised to warn their employees not to use Feedback, to prevent becoming joint controllers.	Google Cloud Master Agreement with the Dutch government, but may also *further* process Support Data as data controller. Both the processing of Feedback Data and the further processing of Support Data are agreed legitimate business purposes.
		Admins can prohibit the use of *Additional Services* when logged in with a Workspace Enterprise account.	Admins can disable access to all *Additional Services*.
8	**No access for data subjects**	Google to develop individual TakeOut tool	Google offers 3 different tools for admins and end users to export personal data (Data Export, Google Vault and Google Takeout). These tools are focussed on Content Data, with some activity logs (*Data owned by users*). These self-service tools do not provide access to all Service Data, but admins can export Diagnostic and Telemetry Data, and end users can use Google's DSAR form to request access to personal data Google processes as data controller.
		Google does not provide individualised access to Diagnostic Data, Telemetry Data and webserver access logs/cookie data (Google calls these data Service Data). Admins can collect some Diagnostic Data by exporting the expanded audit logs, and query for individual user data. The DIT only provides access to the last 24 hours.	Admins need to use BigQuery to export audit logs. Google has ensured that the admin must accept the (processor) conditions of the (Google) Cloud Data Processing Addendum. For this use case GCP is not a Workspace *Additional Service.* Google also enables super admins to request access to historical Telemetry Data.
		Google will publish details why it generally cannot provide access to Telemetry Data, Website Data and personal data from Google's SIEM security logs. Google has confirmed it will consider each request under Article 15 GDPR (i.e. no rejection by default).	Google has published a new explanation at Information not provided in response to an access request.
		The design of Google's DSAR form is not user friendly: users do not know what categories of data Google processes	Government organisations can use the explanations in this report to help employees request access to all of their personal data, through self-service tools, through their admin, and through Google's DSAR form.
9	**Transfer of personal data to the USA + lack of control over subprocessors**		The risks of transfer of the six categories of personal data are assessed in the separate DTIA. The DTIA concludes that there are no high transfer risks for any personal data via Meet, if government organisations select storage in the EU of Content Data. If they want to exchange special categories of data via Meet, they must apply Client Side Encryption to exclude the risk of unauthorised access to these data in 7 third countries.

Introduction

At the request of SLM Rijk Privacy Company has verified if Google has taken the agreed remediation measures due on 9 June 2023 relating to Google Workspace Enterprise, in response to the risks described in the June 2021 update DPIA.[5]

In June 2023 Privacy Company concluded that Google had effectively mitigated the high risks, or reduced them to a low risk. The identification and mitigation of two risks related to transfers of personal data to (subprocessors in) third countries was postponed until after the summer of 2023. SLM Rijk has analysed those transfer risks in a separate project with Google, together with SURF and SIVON. This has resulted in a separate Data Transfer Impact Assessment (DTIA) on the use of the videoconferencing tool Meet (one of the core applications in Workspace Enterprise).

During the verification of the implementation of the agreed remediation measures, the researchers came across a number of potential new risks. The Dutch government and education sector have discussed these issues separately with Google as part of a structural dialogue about compliance. This has resulted in a separate report about five new findings. Since Google has implemented or committed to implement mitigating measures, these five findings do not result in a high risk if government organisations follow the recommended mitigating measures.

Structure of this report

The table below first repeats the risks identified in June 2021 and the proposed mitigating measures. Not all proposed measures were necessary when assessed in combination. Those measures are not repeated in the table below.

Nine separate sections below assess for each risk (by type of personal data) what measures Google has actually taken, and whether those measures are effective.

Terminology

In August 2021 SLM Rijk negotiated an improved agreement with Google. The Google Cloud Master Agreement with the Dutch government identifies two types of personal data: *Customer Data* and *Service Data*. Customer Data are the personal data that customers actively enter, receive and create themselves, such as file and email content. In the DPIA these data are called 'Content Data'. Service Data are any other personal data that are generated when using Google Workspace for Education. In total the verification report and DTIA describe six types of personal data:

1. Content Data
2. Account Data
3. Support Data
4. Diagnostic Data / log files created on Google's servers containing data on individual use of the services (service generated server logs). Google calls these data Service Data. This includes the subcategory of Telemetry Data, messages containing data about user actions that are regularly sent from the user's devices including their browsers to Google via the Internet. Google refers to these data as Diagnostic Data.6
5. Website Data

[5] The Google Workspace Enterprise and Education DPIA is published at Rijksoverheid, at https://www.rijksoverheid.nl/documenten/publicaties/2021/02/12/google-workspace-dpia-for-dutch-dpa . SURF has published the Update DPIA at URL: https://www.surf.nl/files/2021-08/update-dpia-report-2-august-2021.pdf.

[6] Google does not classify these four types of Service Data as separate data categories.

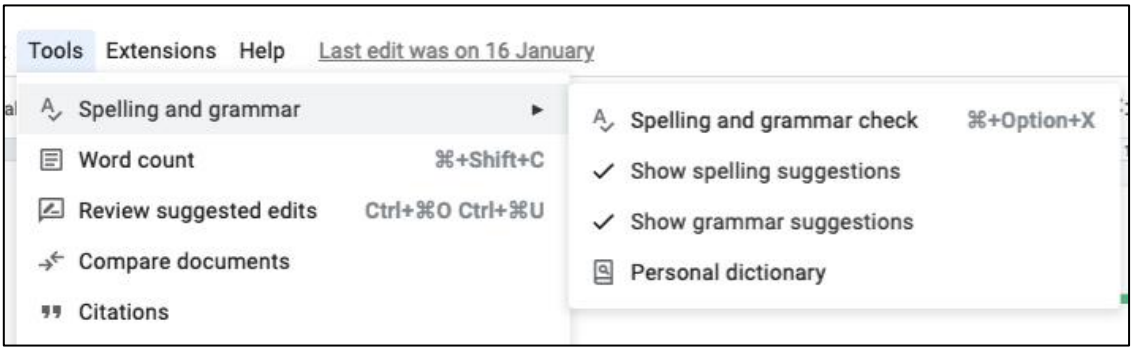
6. Trust & Security Data: data generated or processed by Google's central Trust & Security team in the USA in case of individual flags or complaints for security risks, fraud or abuse.

Google offers two types of services: *Core Services*, which are part of the Workspace for Education package, such as Docs, Sheets, Slides, Sync and Classroom, and *Additional Services*, which are outside of the agreement, such as YouTube and Search.[7] Based on the negotiated Google Cloud Master Agreement with the Dutch government, Google processes all personal data from the Core Services as data processor. However, Google remains a data controller for the *Additional Services*.

This report uses the term *'Spelling and grammar check'*. This is a built-in Feature in Google Workspace that processes Customer Data (Content Data) on Google's cloud servers. Google acts as a data processor for Features in Workspace. End users can choose not to have *Spelling and grammar check* suggestions displayed by Google, but system administrators cannot centrally disable the use of Workspace *Spelling and grammar check*.

The DPIA Update explained that Google offers a total of three different spell checkers, also two different ones in the Chrome browser, a local and a cloud service. Those two types of spell checker in the Chrome browser are outside the scope of this verification report.

Figure 1: Screenshot of Workspace Spelling and grammar check in Google Docs



Scope of this verification report

This verification report covers data processing through the Core services of Workspace Enterprise. There is no 'free' version of this software (different from Education).

Out of scope

This verification report does not include a new legal assessment of the amended agreement that Google reached with the Dutch government for Workspace Enterprise.

This verification report equally does not repeat the measures that government organisations must take to mitigate high risks, such as turning off access to the so-called *Additional Services*. These are services that Google offers in a role as data controller. There are more than 50 of these services. Well-known examples are YouTube, the Google search engines (Google Search and Google Scholar) and Google Maps.[8] In Workspace Enterprise environments, access to these services is enabled by

[7] Google Workspace Services Summary, URL: https://workspace.google.com/intl/en/terms/user_features.html (undated, last accessed 13 June 2023).

[8] Google, Turn on or off additional Google Services, URL: https://support.google.com/a/answer/181865.

default for existing users, but administrators can centrally disable access. Google does disable access for new users.

Meanwhile, Google offers one new public processor agreement for both Workspace services and the Google Cloud Platform, the (Google) Cloud Data Processing Addendum.[9] The contractual arrangements between Google and the Dutch government for Workspace Enterprise explicitly prevail over this new processor agreement.

Based on the Google Cloud Master Agreement with the Dutch government, Dutch government organisations can rely on appropriate transfer mechanisms under Chapter V GDPR, both for the Content Data (*Customer Data)* and all other categories of personal data *(Service Data)*. The DTIA and verification report distinguish between 6 categories of personal data, as explained above. The transfer mechanism is discussed under the 9th high risk in this report, with the results of the separate Data Transfer Impact Assessment (DTIA).

Finally, this report does not address the use of Chromebooks and the Chrome browser. At the request of SIVON, Privacy Company has performed a separate verification analysis on the new processor version of the Chrome OS for Dutch schools. This Chrome OS report will be published on the website of SIVON.

Workspace test environments
To check Google's remediation measures, Privacy Company primarily used a test environment with Google Workspace for Education Plus. The license was set to K-12, i.e., Google's most privacy-protective setting for children under 18. Privacy Company tested on 23 and 26 January 2023, and repeated some tests during the transfer assessment, between 4 October and 10 November 2023.

Privacy Company checked the differences with the default settings and capabilities for admins in the regular Google Workspace for Education Plus (which was not set to K-12). Privacy Company has requested and received additional information and screenshots from a commercial organisation that uses Google Workspace Enterprise, and asked Google if there were meaningful differences.

[9] Google, Cloud Data Processing Addendum, last modified 20 September 2022, URL: https://console.cloud.google.com/tos?id=dpast#dpst_customers.

High risk 1: Lack of purpose limitation Customer (Content) Data

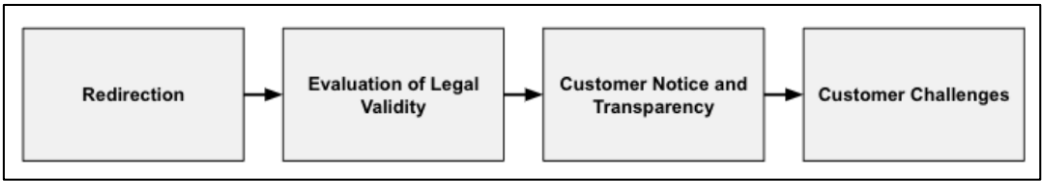
Google has agreed to contractual guarantees to mitigate the data protection risks resulting from the lack of purpose limitation for the processing of the Customer Data. Google may only process the Customer Data for three purposes:

1. *to provide, maintain and improve the Services and Technical Support Services (TSS) subscribed to by Customer;*
2. *to identify, address and fix security threats, risks, bugs and other anomalies*
3. *to develop, deliver and install updates to the Services subscribed to by Customer (including new functionality related to the Services subscribed to by Customer).*

These purposes are included in the Google Cloud Master Agreement with the Dutch government with SLM Rijk.

When it comes to Google's handling of government orders for compelled disclosure, Google published a whitepaper explaining the steps it takes when it receives an order.[10] This whitepaper is limited to 'Customer Data', but under the Google Cloud Master Agreement with the Dutch government, these safeguards also apply to claims for other personal data, such as Telemetry Data and Diagnostic Data from service-generated cloud server logs. Other commitments with regard to disclosure are discussed in Section 9 of this report.

Figure 2: Diagram Google handling government requests for customer information



Conclusion: first high risk mitigated
Google has mitigated the first high risk through contractual measures.

High risk 2: Lack of purpose limitation Diagnostic Data

Similar to the measures to impose purpose limitation for Customer Data, Google has agreed to contractual measures to mitigate the data protection risks for Diagnostic Data. Google has agreed to become a data processor for the Diagnostic Data (service generated server logs and Telemetry data), the Support Data and the Account Data. The Google Cloud Master Agreement with the Dutch government (via SLM Rijk) amends the Google Cloud Privacy Notice in which Google lists different processing purposes for the Service Data.[1]

The Google Cloud Master Agreement states that Google may process the (broadly defined) Service Data as a processor for the agreed three processor purposes. The Google Cloud Master Agreement also includes an exhaustive list of 7 agreed further

[10] Google whitepaper, February 2022, Government Requests for Cloud Customer Data, URL: https://services.google.com/fh/files/blogs/government_access_technical_whitepaper.pdf.
[1] Google Cloud Privacy Notice, version 25 January 2023, URL: https://cloud.google.com/terms/cloud-privacy-notice.

processing purposes, when Google is permitted to process some Diagnostic Data as a controller for its own legitimate business purposes, when necessary.

The list of agreed legitimate business purposes is included in Table 1. However, in a separate mailing to school administrators in the Netherlands about the processing of Service Data (the GCPN addendum)[11] Google explains that it processes Service Data to make recommendations and provide information to users about new or related products and functionalities of Cloud Services to which customers subscribe and that it evaluates the responses to these recommendations.[12] The Google Cloud Master Agreement allows Google to use Service Data to provide updates and other notifications about the subscribed Cloud Services, and to evaluate responses if those are provided to Google in the form of Feedback (in accordance with the legitimate business purposes, see High risk 3, item 2).

However, the explanation in the GCPN addendum is broader, as Google states it may also make recommendations or provide information about related products (in order words: products not subscribed to by the Customer). This qualifies as advertising, which is not allowed under the Google Cloud Master Agreement.

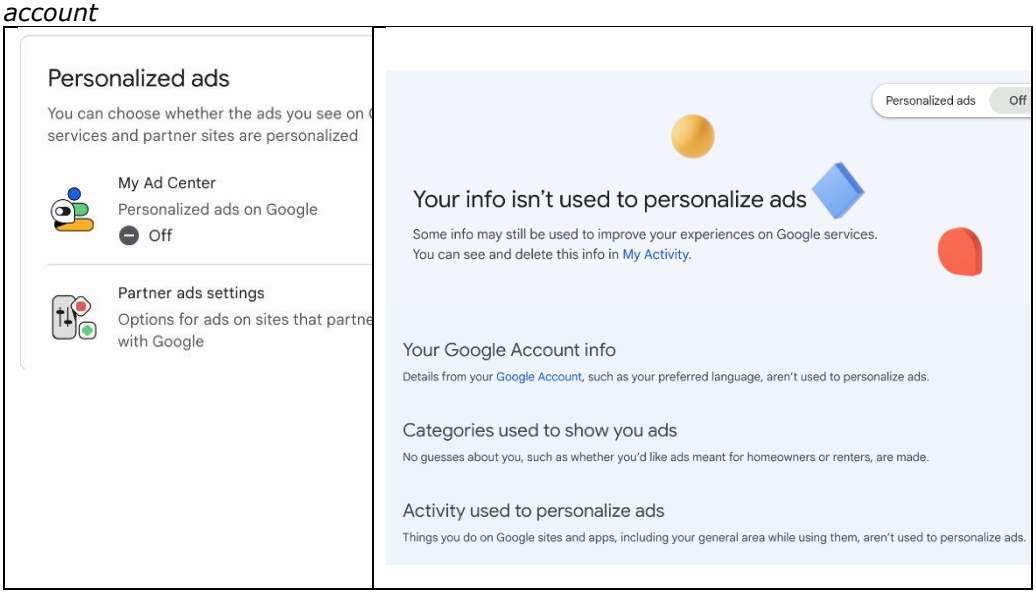
The differences in the information provided by Google are qualified as a low risk because the terms of the Google Cloud Master Agreement prevail over any information Google publishes or otherwise provides to government organisations in the Netherlands.

The agreement explicitly states that Google may not seek consent from end users to share Service Data with third parties if those services are disabled by government administrators. This includes Google as a third party controller for the *Additional Services*.

Privacy Company checked the default settings in a new Google Workspace account in a university tenant. There too, ads personalisation was off by default, in accordance with the agreed remediation measure. Privacy Company has no reason to assume this would be different in Google Workspace for Enterprise environments.

[11] Google for Education, **confidential** addendum on the Google Cloud Privacy Notice, as negotiated by SURF and SIVON.
[12] Idem, p. 2.

Figure 3: Screenshot default setting ads personalisation in university Workspace account



Conclusion: second high risk mitigated

Google has mitigated the second high risk through a combination of contractual and technical measures.

High risk 3: Lack of transparency Customer (Content) Data

Google had agreed to implement five technical measures to mitigate the risk of loss of control through a lack of transparency about the Customer (Content) Data.

1. Develop a tool to view Telemetry Data.
2. Show a new warning in the Feedback form not to share sensitive data.
3. Provide a visual reminder to end users using a profile icon whether they are working in the protected Workspace for Education environment, or outside it.
4. Make all relevant legal information about the managed Google Workspace account permanently accessible.
5. Explain in the Workspace Data Protection Implementation Guide that Google processes the Account Data as a processor.

1. Development of a tool to view Telemetry Data.

The first measure was the development of a tool to view the contents of the Telemetry Data. Google has developed a tool for system administrators called the Diagnostic information tool (DIT).[13] [**Confidential**] See Figure 4 below.

*Figure 4: [**Confidential** - screenshot of DIT]*

Privacy Company tested the tool and analysed the telemetry events. In some telemetry events, Customer (Content) Data were visible, from the Workspace Spelling and grammar check. See the full content of such a message in the Annex with this

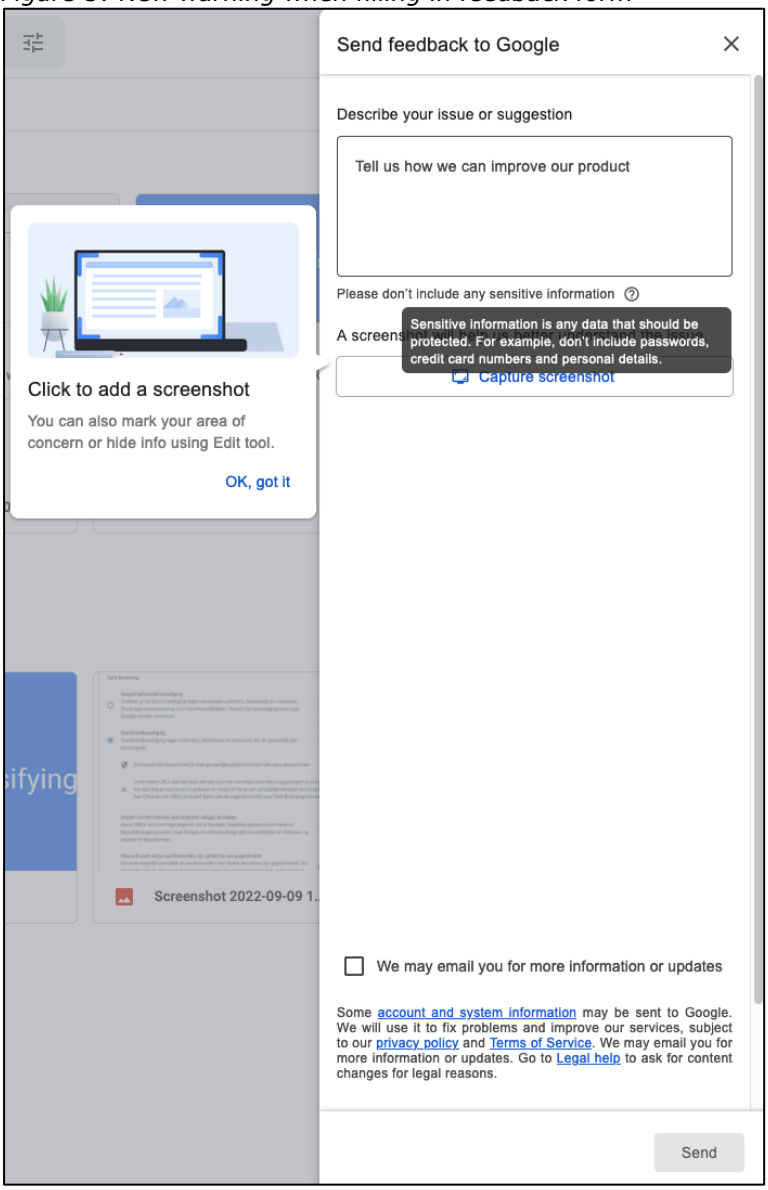
[13] Google, Diagnostic Information Tool, URL: https://support.google.com/a/answer/12830816

report. The functioning of the DIT and its assessment are discussed in more detail under high risk No 4, below.

2. New warning in the Feedback form not to share sensitive data.

The second measure was a new warning in the Feedback tool to users not to share sensitive data with Google. The warning is necessary because the Google Cloud Master Agreement allows Google to *further* process the (voluntary) input from end users in the Feedback form for its own legitimate business purposes as controller. Google did include such a warning as shown in Figure 5 below.

Figure 5: New warning when filling in feedback form



3. Visual reminder to end users with the profile icon

The third technical measure was a visual reminder to end users with a profile icon whether they are working in the protected Workspace environment, or outside of it, in, for example, in a Google *Additional Service* such as YouTube or Search. As shown in Figure 6 below, Google does remove the icon when a user accesses an *Additional*

Service. If access to these services is centrally disabled, employees are automatically logged-out from their Workspace account, and the profile icon disappears.

Figure 6: Screenshot of profile icon in top bar browser when logged in using Core Services

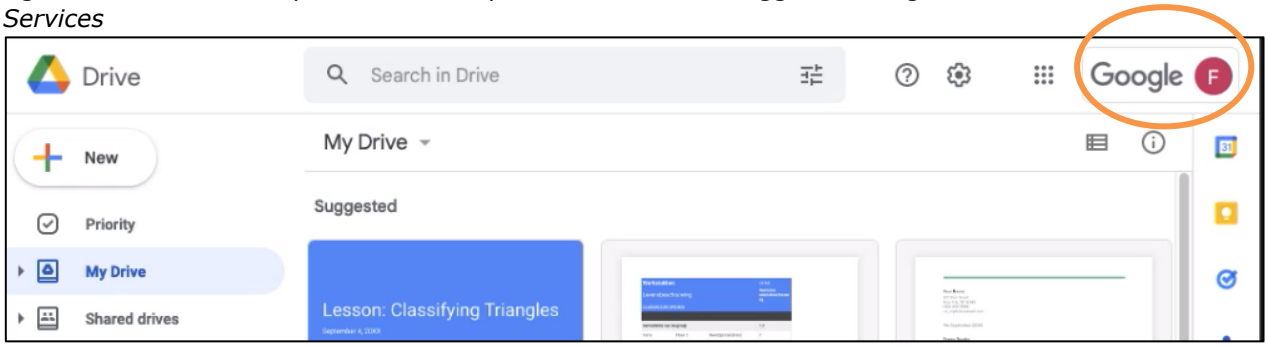


Figure 7: Screenshot of disappeared profile icon in top bar browser when using 'disabled' Additional Service Search

This practice is consistent with Google's public explanation on the use of *Additional Services*. Indeed, Google explains in its *Google Workspace data protection implementation guide*[14] that users can still use some *Additional Services* such as YouTube if the administrator has centrally disabled access, but the user is then automatically logged out ("*use in a logged out state*").

[14] Google Cloud Whitepaper December 2020, Google Workspace data protection implementation guide, p. 9, URL: https://services.google.com/fh/files/misc/google_workspace_data_protection_guide_en_dec2020.pdf

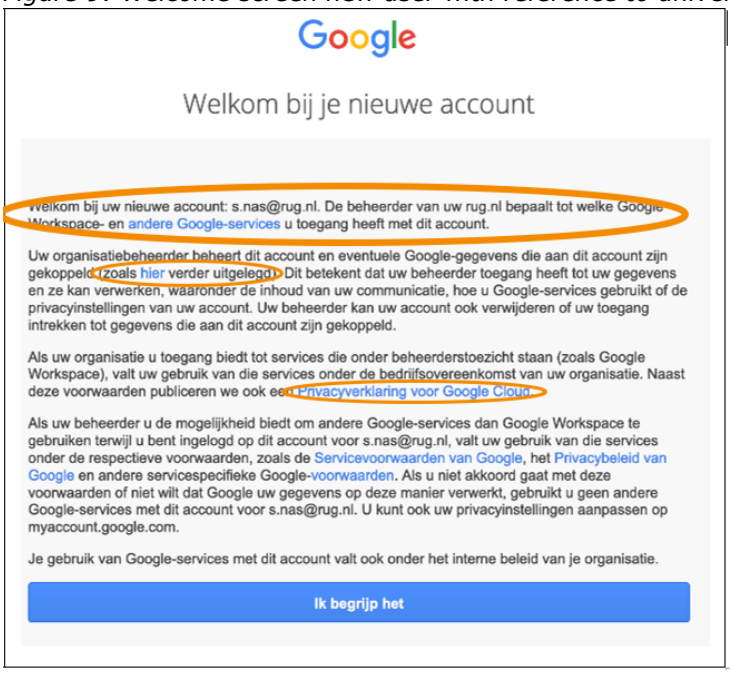
Figure 8: Screenshot explaining Google about using Additional Services in Workspace Enterprise [15]

> **Note:** Even if a Google Workspace admin has disabled signed-in access to Additional Services, users may still access and use Additional Services in an unauthenticated state. For example, if the admin has disabled YouTube in the Admin console for the organization, a user can still visit YouTube and use the service in a logged out state, but login using their organization managed Google Account will fail. In this case, Google will not process data that can be linked to the user's organization managed Google Account.

4. Relevant legal information permanently accessible

The fourth technical measure was the promise to make all relevant legal information about the Google Workspace account permanently accessible. End users can only read that information once, after the creation of a new account, in a pop-up screen with hyperlinks to a variety of legal documents. See Figure 9 below. The middle link, to the 'Privacyverklaring voor Google Cloud', leads to a separate Google Cloud Privacy Notice. See Figure 10 below.

Figure 9: Welcome screen new user with reference to university role [16]



[15] Idem, p. 11.

[16] Privacy Company has no reason to believe this is different in Workspace Enterprise.

Figure 10: Google Cloud Privacy Notice[17]

Home > Documenten > Was this helpful?

Google Cloud Privacyverklaring

Datum van Inwerkingtreding: 25 januari 2023

Deze Google Cloud Privacyverklaring beschrijft hoe we uw persoonlijke informatie verzamelen en verwerken met betrekking tot Google Workspace (inclusief Google Workspace for Education), Google Cloud Platform, Cloud Identity (indien afzonderlijk verkocht) en Implementatieservices (samen "Cloudservices").

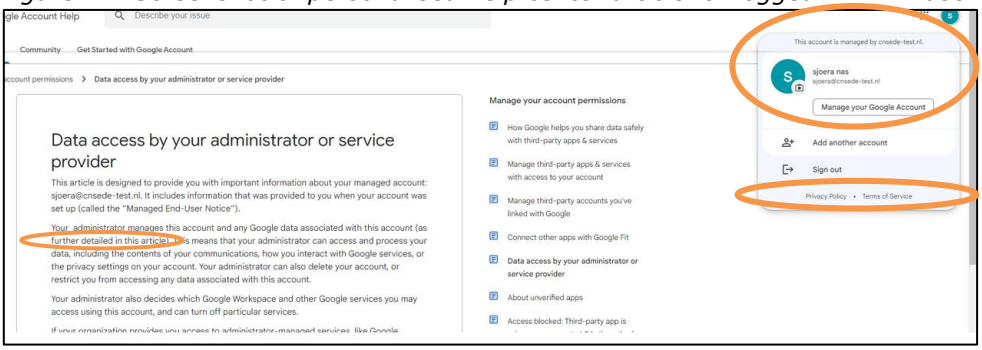
We bieden onze klanten rechtstreeks of via onze geautoriseerde partners Cloudservices aan. Waar we in deze verklaring naar onze klanten verwijzen, bedoelen we ook onze partners en hun klanten.

Als de gegevensbeschermingswetgeving van de Europese Unie (EU), het Verenigde Koninkrijk of Zwitserland van toepassing is op de verwerking van Servicegegevens die op u betrekking hebben, kunt u het gedeelte 'EU-privacynormen en AVG' hieronder lezen voor meer informatie over uw rechten en de naleving door Google van deze wetten.

Alles uitvouwen

As a result of the negotiations with SLM Rijk, Google has changed the information in the help center article that is referred to by the second hyperlink, *'zoals hier uitgelegd'*.[18] If a user is logged-in, the text in this article is now personalised and refers to the (1) Managed End User Notice, (2) (Google) Cloud Privacy Notice. See Figure 11 below.[19]

Figure 11: Screenshot of personalised help center article for logged-in K-12 user



Google did not (yet) make the information about the privacy rules for the managed accounts permanently accessible, or to remove the (incorrect) references to Google's (consumer) Privacy Policy and Terms of Service in the pop-up when a user clicks on the profile settings (see the right side of Figure 11 above). Google did add a new line on top of the screen

> *"This account is managed by [in this case:] cnsede-test.nl".*

[17] Google Cloud Privacy Notice, URL: https://cloud.google.com/terms/cloud-privacy-notice Google has since updated the Statement, but this does not materially affect the negotiated privacy terms.

[18] Google, Data access by your administrator or service provider, URL: https://support.google.com/accounts/answer/181692 .

[19] When Privacy Company tested the new information flow on 12 and 13 June 2023, the Dutch version of this text had not been updated, and was not yet personalised.

The pop-up continues to refer to two standard Google documents (i) Google's general privacy policy and (ii) Terms of Service, where Google acts as a data controller. In the university environment, Single Sign-on is used, and Google's legal information could not be found at all.

Figure 12: Login screen for new users in University Workspace environment

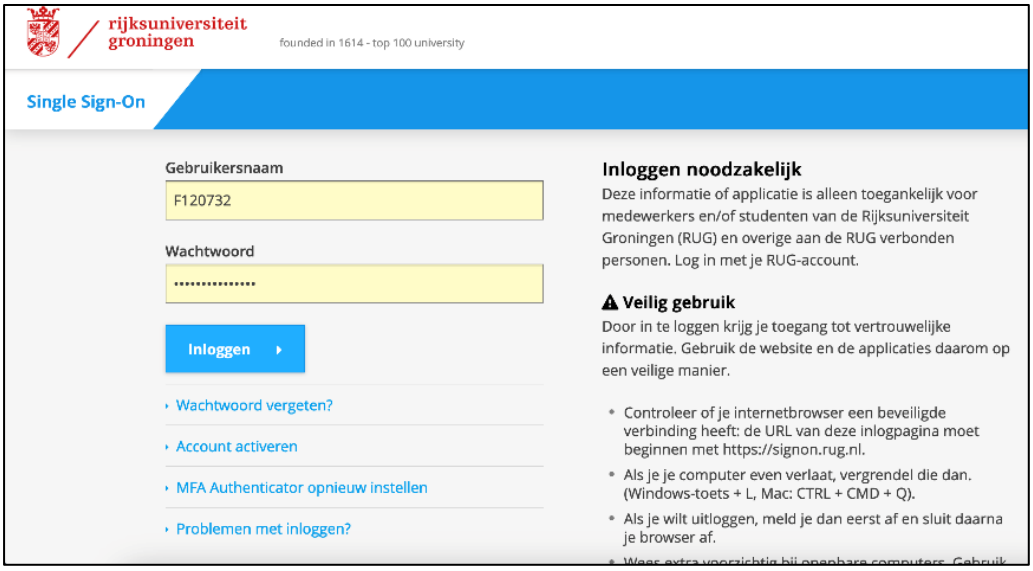
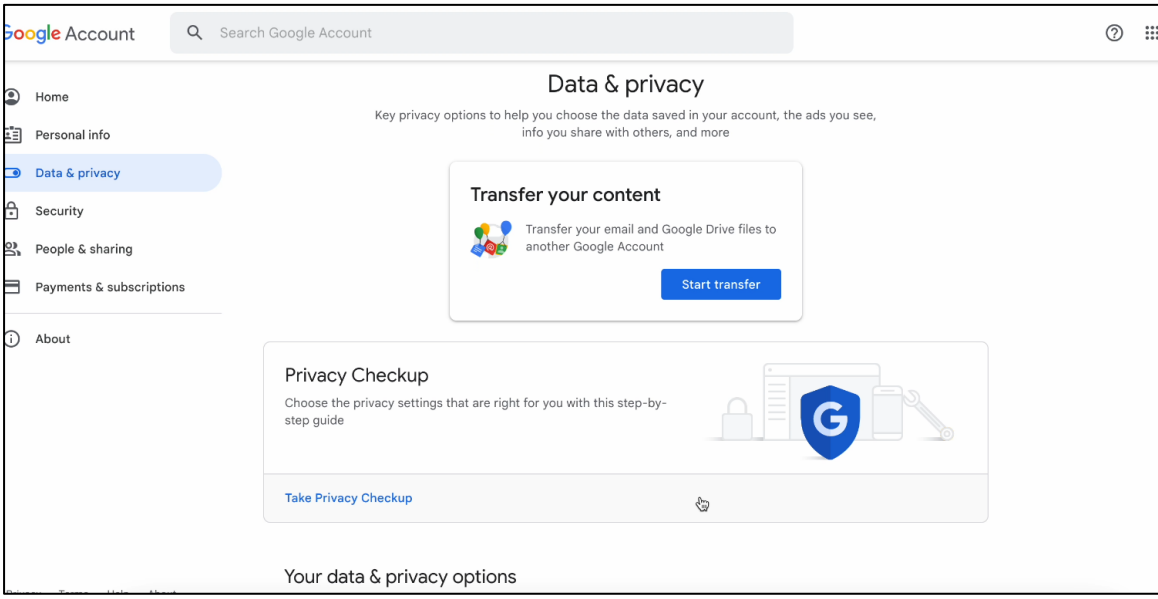
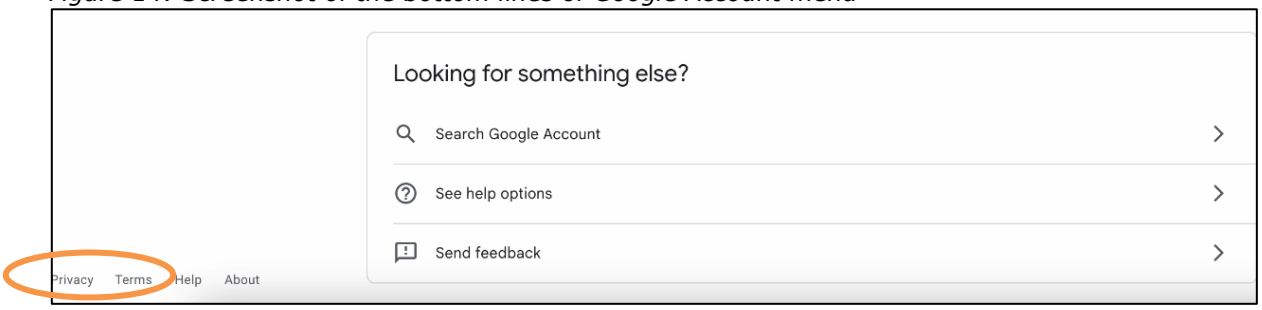


Figure 13: Screenshot Google Account menu for university Workspace account holders



(...)

Figure 14: Screenshot of the bottom lines of Google Account menu



Even in the Google Account menu, that contains all kinds of settings for the (managed Workspace Enterprise) Google account, there is no overview of the relevant legal sources. On the contrary, as depicted in Figure 14 above, Google shows links to its general privacy policy and terms and conditions at the bottom of this long page (thus acting as the data controller).

As a result of the negotiations with SLM Rijk, Google has committed to make certain UI changes in the future. In view of the interim solution to personalise the information about the access of the admins, and Google's commitment to deploy a permanent solution in [**Confidential**], this element of this high risk is sufficiently mitigated.

5. Explain that Google processes the Account Data as a processor

The fifth measure was the commitment to explain that Google processes the Account Data as a processor when the Google Account is used in the Core Services. Google explains the Account Data in this guide, but you have to read between the lines to understand that Google can also process the Account Data as an independent controller for all the purposes in its general privacy statement when users log into the *Additional Services* with their account.

Google writes:

> *"Users can provide information directly, when providing a name and profile picture, or indirectly, when Google collects information about when and for what purposes and in what context (app/web, platform and device) a user signs in. When a user signs in to their new organization managed Google Account you created, they receive a notice explaining how their data is collected and accessed by their admin, and how their use of Google Workspace Core Services are governed by your organization's Google Workspace terms. The notice also explains that use of Additional Services when used with the organization managed Google Account are governed by Google Privacy Policy and Google Terms of Service, and applicable service-specific terms "*[20]

The term Account Data falls under Service Data and also includes device/browser data and unique identifiers, as well as, for example, log-in and log-out times or the times a user enters an incorrect password.

> *"[**Confidential**]"*[21]

[20] Google Workspace Enterprise data protection implementation guide, December 2020, p. 9, URL: https://services.google.com/fh/files/misc/google_workspace_data_protection_guide_en_dec2020.pdf .

[21] Google Cloud Master Agreement with the Dutch government.

Without a clear explanation from Google, users might also think that Account Data is part of Customer Data. This is the case with many paid services from other cloud providers. That explanation does appear in the Google Cloud Privacy Notice[22] , but it is not easy for end users to find, as the link to it appears only once in the pop-up screen after account creation.

Because the agreement with SLM Rijk allows Google to further process the Service Data, which includes the Account Data, for 7 of its own purposes, it is important that Google clearly informs the organisations what it does and does not do with the names and e-mail addresses of end users. For example, that Google does not send users unsolicited emails with 'information' "*about new or related products and features related to Cloud services to which our customers subscribe*", as Google mentions in its information to schools and universities.[23] Based on the Google Cloud Master Agreement with the Dutch government, Google may not use either Content or Service Data for profiling, for advertising, data analytics and market research.

To ensure employees are correctly informed about the scope and purposes of the processing by Google, government organisations should explain to employees that Google is a processor for the Account Data. Because government organisations are the data controllers, they are in charge of the information obligations. As long as they use the correct information, the risk is sufficiently mitigated.

Conclusion: third high risk mitigated

Google has taken four successful measures to mitigate the third high risk, and has committed to take a fifth measure. The four successful measures are: the creation of the DIT tool, the warning in the Feedback tool, the visual reminder with the profile icon and the information about Google's role as processor for the Account Data. Government organisations are responsible to inform their employees about the purposes for which Google may process the Account Data. With regard to the fifth measure, Google has committed to make the relevant legal information permanently accessible for end-users by [**date confidential**]. Until then, government organisations can inform their employees with the information in the public DPIA and this (updated) verification report.

High risk 4: Lack of transparency Diagnostic Data

Google promised seven technical measures:

1. Public documentation of Telemetry Data;
2. Development of a tool to view Telemetry Data;
3. Expanded administrator access to Diagnostic Data via audit logs;
4. A Domain Wide Takeout tool that allows system administrators to easily answer a data subject's (pupil, student or employee) data subject access request;
5. List of subprocessors with their subsidiaries, and Google affiliates processing both Content and Diagnostic Data, with detailed information on the types of personal data they can process;
6. A visual reminder to end users using a profile icon whether they are working in the protected Workspace Enterprise environment, or outside it.

[22] Google Cloud Privacy Notice, 25 January 2023, URL: https://cloud.google.com/terms/cloud-privacy-notice

[23] Google's (wrong) information is available at [**confidential URL**].

7. Make all relevant legal information about the managed Google Workspace account permanently accessible.

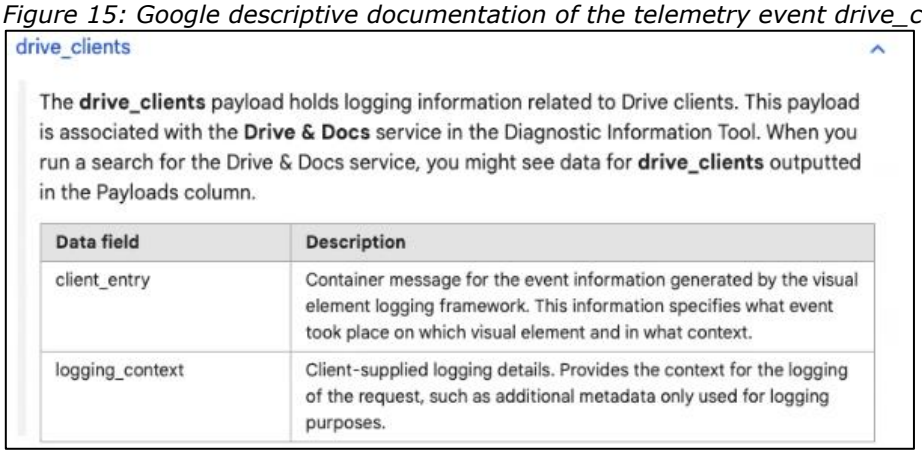
The last two measures have already been discussed above, and will not be repeated here.

1. Public documentation of Telemetry Data

Google implemented **the first measure** in two phases. In December 2022, Google only published brief documentation with a description of some events. For example, Google's documentation on drive_clients only described only two fields. It was intransparent that the logging_context field could also contain Content Data. As shown in the Annex with this report, the telemetry event included a misspelled sentence, with the correct spelling.

> *"context: \""ididunt ut labore et dolore magna aliqua homework splelling"" suggestion: \"spelling".*

Figure 15: Google descriptive documentation of the telemetry event drive_clients



drive_clients

The **drive_clients** payload holds logging information related to Drive clients. This payload is associated with the **Drive & Docs** service in the Diagnostic Information Tool. When you run a search for the Drive & Docs service, you might see data for **drive_clients** outputted in the Payloads column.

Data field	Description
client_entry	Container message for the event information generated by the visual element logging framework. This information specifies what event took place on which visual element and in what context.
logging_context	Client-supplied logging details. Provides the context for the logging of the request, such as additional metadata only used for logging purposes.

On 9 June 2023, the second phase, Google has significantly expanded its documentation about Telemetry Data. The information page about the Diagnostic Information Tool[24] contains two sources of information: a general description with non-exhaustive examples of telemetry events,[25] and detailed examples with the full payload of a representative browser telemetry event for each Workspace Core Service.[26]

In reply to the specific observations from December 2022, Google provided a paragraph with explanation why it is necessary for Google to collect Content Data in Telemetry Data about its Spelling and grammar check,[27] and a complete sample of the payload of the common_event_logging event that accompanies each event as envelope.

Google explained that there is a mixture of processing that takes place both on the server-side and client-side to provide the Spelling & Grammar functionality to users. Google logs data for Spelling & Grammar on the user's client because users interact

[24] Google, Diagnostic Information Tool, URL: https://support.google.com/a/answer/12830816.
[25] Idem, 'Understand your search results'.
[26] Google, Payload examples for the Diagnostic Information Tool, URL: https://support.google.com/a/answer/13675570?sjid=5964413579470267587-EU
[27] Google also referred to a blog from 2019 about the use of AI in the Spelling and grammar check, at URL: https://workspace.google.com/blog/productivity-collaboration/everyday-ai-beyond-spell-check-how-google-docs-is-smart-enough-to-correct-grammar

with the feature (e.g. user clicks accept/reject spelling or grammar suggestions) on the client side. As quoted in the Figure 17 below, Google has programmed the client (browser) to send the data to its own cloud servers to be able to verify that the feature is working properly. Google publicly explains:

> "*Without this information, the spelling & grammar check feature would degrade over time and provide incorrect/sub-standard spelling & grammar suggestions which would adversely impact the reliability, effectiveness and functioning of this feature.*"[28]

Google has also explained that there are further scenarios such as when a user's client is in offline mode where the logging necessarily must happen on the client.

Figure 16: New Google samples of representative events in Drive & Docs[29]

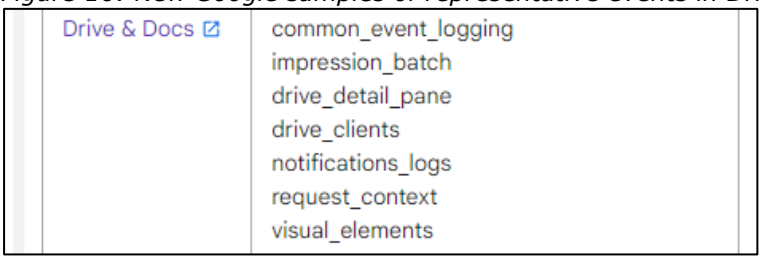


Figure 17: Google new explanation about the Spelling and grammar check[30]

Suggestions are presented to the user on their client device by underlining a word or phrase. When a user selects any of the spelling and grammar suggestions, the service presents them with one or more suggested edits and the option to ignore the suggestion. The service logs the user's selection on the client along with the relevant portion of the content used to make the suggestion. This logged data is sent to the server where it is then processed to ensure that this feature is working properly; logging which suggestions are accepted, rejected, or ignored is essential for the reliability, effectiveness. and functioning of this feature.

[28] Google explanation provided to SLM Rijk.
[29] Google, Diagnostic Information Tool, URL: https://support.google.com/a/answer/12830816
[30] Idem, https://support.google.com/a/answer/12830816#associations&zippy=%2Cwhich-google-workspace-services-are-included-in-the-diagnostic-information-tool%2Cwho-can-use-the-diagnostic-information-tool%2Cretention-of-diagnostic-information%2Cdata-aggregation-and-similar-measures%2Cexample-of-diagnostic-information-outputted-in-the-payloads-column%2Cspelling-and-grammar-suggestions.

Figure 18: New Google example of the full contents of common_event_logging[31]


```
{"common_event_logging":"'{\"clientInfo\":{\"androidClientInfo\":
{\"applicationBuild\":\"2019999948\",\"board\":\"bluejay\",\"brand\":\"goog
le\",\"country\":\"US\",\"device\":\"bluejay\",\"deviceFingerprint\":\"goog
le/bluejay/bluejay:13/TP1A.XXXXX.004.A2/XXXXX:user/release-
keys\",\"extensionVersion\":[{\"extension\":33,\"version\":3},
{\"extension\":30,\"version\":3},
{\"extension\":31,\"version\":3}],\"gmscoreVersion\":223316044,\"hardware\"
:\"bluejay\",\"locale\":\"en\",\"manufacturer\":\"Google\",\"mccMnc\":\"404
49\",\"model\":\"Pixel6a\",\"osBuild\":\"TP1A.222093.004.A2\",\"product\":\
"bluejay\",\"radioVersion\":\"i12345-102852-220720-B-
321321321\",\"sdkVersion\":33},\"clientType\":\"ANDROID\"},\"clientTimestam
pMillis\":\"1664529600759\",\"deviceStatus\":
{\"isXXXXXDevice\":true},\"logSource\":\"CALENDAR_CLIENT\",\"timestampMilli
s\":\"1664529600760\",\"timezoneOffsetSeconds\":19800}'","calendar_client_e
vents": "'{\"visualElementEntry\":{\"ancestryVisualElement\":
{\"elementId\":92131},\"visualElementMetadata\":{\"clientMetadata\":
{\"channel\":\"PROD\",\"orientation\":\"PORTRAIT\",\"versionName\":\"2022.3
6.0-472143158-release\"},\"userMetadata\":
{\"userType\":\"EXTERNAL\"},\"userNotificationMetadata\":
{\"userNotificationContentState\":\"ORIGINAL\",\"userNotificationSource\":\
"EVENT\"}}}}'"}
```


As additional mitigating measure Google explained that the maximum retention period of the Telemetry Data about the use of the Spelling and grammar check was 30 days.

As shown in the Annex, the event with the Spelling and grammar check contains a lot of so called 'experiment ID's'. It is not clear what these experiments are.

[**Confidential**]

Under statutory law, Google is bound to comply with the ePrivacy rules. The Google Cloud Master Agreement contains specific arrangements in this respect.

Privacy Company also found other Content Data in the telemetry in two other telemetry events: the email address of the researcher in the entry "user_jid". Google documents this occurrence in the representative payload example about Meet as: redacted-email@redacted-domain.com and explains:

> *user_jid : The user JID of the participant. In this case, it is redacted-email@redacted-domain.com.*

Google does not document the occurrence of the collection of the name of the Bluetooth wireless earphones of the researcher. This lack of explanation is likely due to the fact that Google has chosen to document the Telemetry Data from the browser, and not from an Android device. See the Annex.

Contractually, Google is bound to provide sufficiently adequate documentation about the telemetry events to enable an auditor to compare the documentation with the collected data.

With the expanded information, Google has successfully implemented the first agreed measure and mitigated the high risk. The public documentation enables auditors to

[31] Idem.

verify if the Telemetry Data that Google collects fit within the documentation. The public documentation also allows admins and data subjects to understand what data Google collects, and compare this documentation with the output of a Data Subject Access Request for Telemetry Data (through the DIT tool and additional form for (super)admins, see below). As a result, government organisations can fulfil their GDPR transparency obligations as data controllers in relation to the Telemetry Data.

2. Development of a tool to view Telemetry Data;
The second measure is the tool to view Telemetry Data, the DIT. The DIT does indeed provide insight into telemetry data, for a list of Core Services, but only for up to the past 24 hours. Google explained it uses this short look-back period to be able to provide a reply within a relatively short time period. Admins can use the DIT every 24 hours if they want, to get a broader picture of Telemetry Data.

Google has explained that DIT shows telemetry from the following services, for both web, iOS and Android:

- Assignments (Google Workspace for Education only) (web only)
- Calendar
- Chat
- Classroom (Google Workspace for Education only)
- Cloud
- Search
- Contacts (web)
- Drive & Docs (Docs, Drive, Forms, Sheets, Slides)
- Gmail
- Groups (web only)
- Jamboard
- Keep
- Meet
- Sites (web only)
- Tasks
- Voice [out of scope DPIA]

*Figure 19: [**Confidential -** screenshot DIT]*

*Figure 20: [**Confidential -** screenshot DIT]*

Due to the short time frame for the DIT (maximum access only to the last 24 hours), the DIT cannot function as a data subject access request tool, as it does not provide full insights in all Telemetry Data Google processes. Most users do not use all Workspace services every day. The 24 hour period also does not provide insights in the factual data retention periods.

As a result of the dialogue with SLM Rijk, Google developed two additional measures to mitigate this risk:

1. a description of retention periods, and
2. a manual process for super admins to ask for access to older Telemetry Data in reply to a data subject access request.

These two measures are described in more detail below.

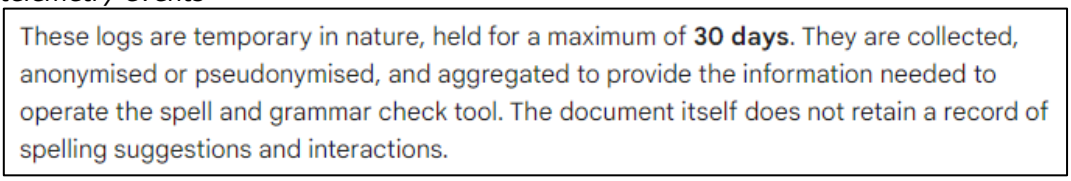
New description of retention periods

The page about the Diagnostic Information Tool includes a description of the average retention periods of the Telemetry Data.

> *"We retain most types of Service Data for a set period of up to 180 days. (...) In practice, diagnostic information [Telemetry Data in this report] is retained for shorter periods of between 30 to 63 days.*[32]

With regard to the Content Data that may be part of some Telemetry events about the use of the Spelling and grammar check, Google applies the shortest retention period, of maximum 30 days.

Figure 21: Google explanation of retention period for Spelling and grammar telemetry events[33]


These logs are temporary in nature, held for a maximum of **30 days**. They are collected, anonymised or pseudonymised, and aggregated to provide the information needed to operate the spell and grammar check tool. The document itself does not retain a record of spelling suggestions and interactions.

Google also refers to its Google Cloud Privacy Notice.[34]

In this document Google writes:

> *"We retain Service Data for different periods of time, depending on the type of data, how we use it and how you configure your settings. When we no longer need Service Data, we delete or anonymise it. For each type of Service Data and processing operation, we set retention periods based on the purposes for which we process it, and ensure that Service Data is not kept longer than necessary.* ***We retain most types of Service Data for a specified period of up to 180 days (the exact number depends on the specific type of data).*** *However, some Service Data may be retained for longer periods if there is a business need to do so. We generally have longer retention periods (which may be more than one year) for Service Data retained for the following purposes: (...). "*

Google describes 3 criteria when Service Data are retained for longer periods. These are:

1. *Security, fraud and abuse prevention,*
2. *Complying with legal or regulatory requirements and*
3. *Complying with tax, accounting or financial requirements.*

By publishing the average retention period of 180 days for Service Data, and providing the criteria Google applies to determine a longer retention period, Google has mitigated this element of the risk of a lack of transparency of the Diagnostic Data. Google now enables the controllers (government organisations) to comply with the (minimum) requirements of the transparency obligation about personal data indirectly collected from data subjects. Article 14(2) sub a of the GDPR specifies that controllers may suffice with explaining the criteria, if it not possible to provide the specific periods

[32] Google, Diagnostic Information Tool, URL: https://support.google.com/a/answer/12830816.
[33] Idem, under 'Spelling and grammar suggestions'.
[34] Google Cloud Privacy Notice, 25 January 2023, URL: https://cloud.google.com/terms/cloud-privacy-notice [The page was recently updated, on 24 January 2024, but this does not materially affect the negotiated privacy conditions].

for which the data will be stored. In all cases, Google has to comply with the agreed purpose limitations as processor, or as controller, when contractually permitted to process some personal data for its own legitimate business purposes, when proportionate.

New manual access to historical Telemetry Data

On [**date confidential**], Google enabled super admins from Dutch government organisations to ask for available historical Telemetry Data. In the future all super admins will be able to make such requests via the Admin Console [**confidential**].

Google insists that admins must send Google a copy of the access request of their employee, to prove that they need access to the historical Telemetry Data.

Google explains:

> "[**Confidential**]."[35]

With the request to super admins to provide a copy of a Data Subject Access Request, Google wants to ensure that it provides the Telemetry Data in reply to a request of a verified data subject. Google is apparently concerned that an admin would randomly pick names of employees. This extra hurdle by itself does not lead to a (new) high risk, as long as the super admins carefully scrub individual data subject access requests from any non-necessary data.

Google states it will be able to provide the requested data within a period of maximum 30 calendar days. The specific response time in each case will depend on the complexity of the request and the volume of diagnostic information to be produced.

*Figure 22: [**Confidential** - screenshot form]*

In sum, with the capability for super admins from Dutch government organisations to ask for available historical Telemetry Data Google has mitigated this component of the high risk of lack of transparency about the Diagnostic Data.

3. Expanded administrator access to Diagnostic Data via audit logs

The third agreed measure was expanding the availability of audit logs for system administrators. Google has implemented this measure, and makes 30 audit logs available (as tested on 23 January 2023). In the list below, the names of the new logs are highlighted in green. Privacy Company did not test all Services for this verification report, which is why some logs were empty. For examples of logs with content, see the Annex.

Table 2: Overview of available audit logs

1. Access Transparency log events	2. Admin log events	3. Assignments log events
4. Calendar log events	5. Chat log events	6. Chrome log events
7. Chrome Sync log events	8. Classroom log events	9. Cloud Search log events
10. Contacts log events	11. Context-aware access log events	12. Currents log events
13. Device log events	14. Directory Sync log events	15. Drive log events

16. Google profiles log events	17. Graduation log events	18. Groups enterprise log events
19. Groups log events	20. Keep log events	21. LDAP log events
22. Looker Studio log events	23. Meet log events	24. Oauth log events
25. Password Vault log events	26. Rule log events	27. SAML log events
28. Takeout log events	29. Tasks log events	30. User log events

Google has terminated five audit logs: Login audit log, Token log, Hangout Chat log, Google+ log and Voice logs (Voice is out of scope of the DPIA).

The available audit logs contain all kinds of Content Data, such as file names and paths, or email subject lines, but that does not pose any additional data protection risks now that Google acts as a processor for these service-generated server logs.

As shown in Figure 23 below, Google publicly documents the retention periods for audit logs.[36] Google explains how long it can take for logs to become visible (between a few minutes and period of 1 to 3 days), and lists retention periods for all specific logs. In general, Google keeps audit logs for 180 days (six months). System administrators can extend that retention period by exporting them to their own storage space. If they use Google Cloud to store these exported data, for Google these data then become Content Data.

[36] Google, Data retention and lag times, URL: https://support.google.com/a/answer/7061566?hl=en.

Figure 23: Google retention periods audit logs

Log events name	Lag time
Access Transparency log events	Near real time (couple of minutes)
Admin log events	Near real time (couple of minutes)
Assignments log events	Near real time (couple of minutes)
Calendar log events	Tens of minutes (can also go up to a couple of hours)
Chat log events	1–3 days
Chrome log events	Near real time (couple of minutes)
Classroom log events	1–3 days
Cloud Search log events	Up to a few hours
Context Aware Access log events	Near real time (couple of minutes)
Currents log events	1–3 days
Devices log events	Near real time (couple of minutes)
Directory Sync log events	Near real time (couple of minutes)
Drive log events	Near real time (couple of minutes)
Gmail log events	Near real time (couple of minutes)
Groups log events	Tens of minutes (can also go up to a couple of hours)
Jamboard log events	Near real time (couple of minutes)
Keep	Near real time (couple of minutes)
LDAP log events	Near real time (couple of minutes)
Looker Studio log events	Near real time (couple of minutes)
Meet log events	Near real time (couple of minutes)
Meet quality	Near real time (couple of minutes)
OAuth	Up to a few hours
Rules log events	Near real time
SAML log events	Up to a few hours
Takeout log events	Event when Takeout process starts: Near real time Event when the Takeout process finishes: Depends on the size of the data, up to many days
Tasks log events	Near real time (couple of minutes)
Token log events	A couple of hours
User log events	Login events: Up to a few hours User account events: Tens of minutes
Voice log events	Near real time

Google has made another improvement with regard to the audit logs: the ability for administrators to more easily store and search audit logs in a private data space at Google Cloud via the BigQuery export tool.

Google does not offer a standard option to export log data from one individual via the Domain Wide Takeout tool, only for the organisation or groups within the organisation.

When system administrators receive a Data Subject Access Request from a student or employee, they have to export all audit logs and search them for data on one person. Selecting the audit log data relating to 1 specific individual is much easier with BigQuery.

Figure 24: Screenshot of (switching on) BigQuery export

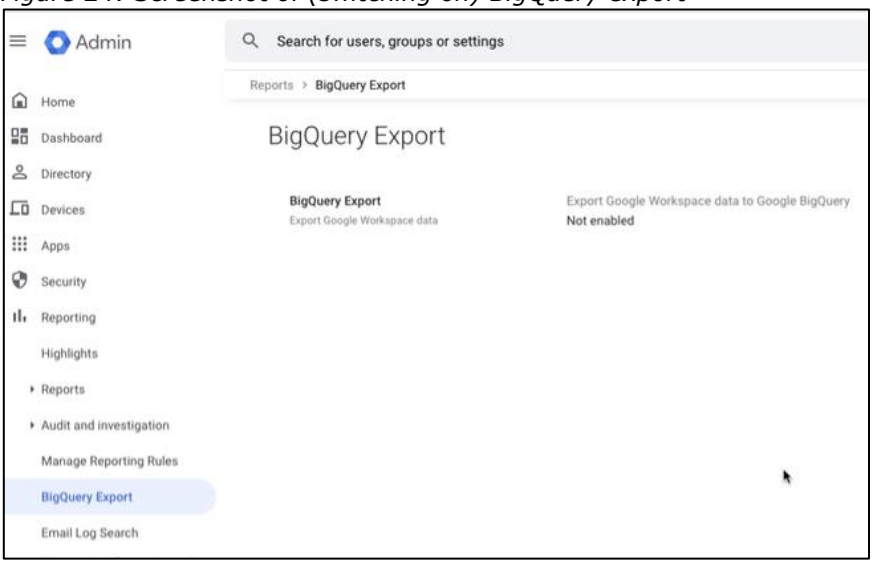
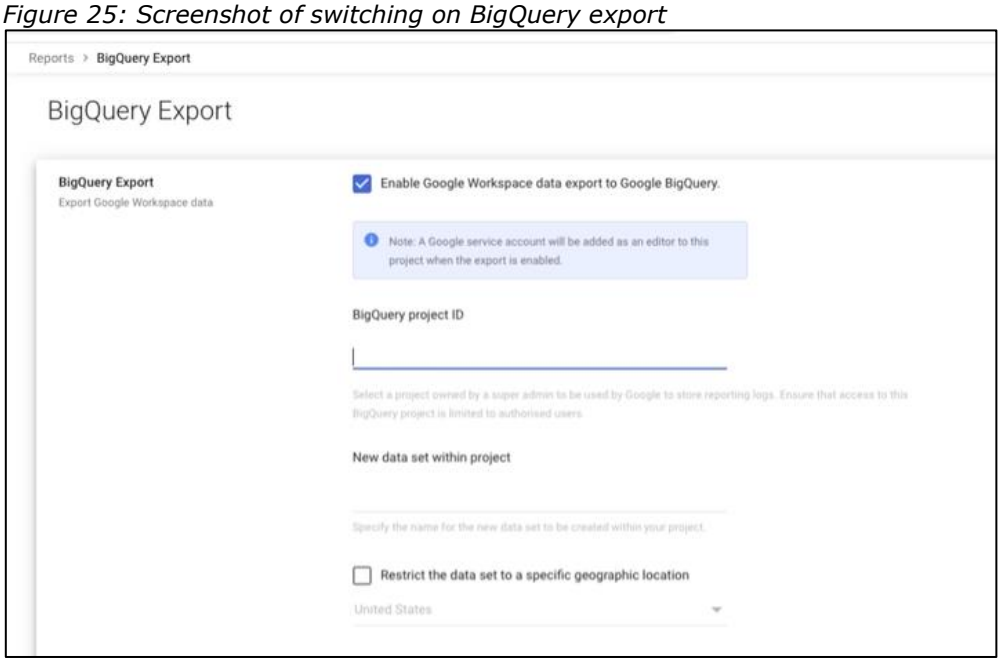


Figure 25: Screenshot of switching on BigQuery export



BigQuery is Google's database (hosted MySQL). To enable BigQuery, the administrator must first enable the *Additional Service* 'Google Developers'. Since Google is a data controller for the Workspace *Additional Services*, the BigQuery data processing would be outside of the agreed Google Cloud Master Agreement with the Dutch government. However, Google has mitigated this risk by ensuring that an admin needs to click & accept the Google Cloud Platform Terms of Service (which incorporate the (Google) Cloud Data Processing Addendum) before the admin is able to use the GCP service BigQuery for the first time. As explained above, all data stored by customers on the cloud platform are Content Data for Google. The (Google) Cloud

Data Processing Addendum clarifies that Google will process these Content Data as processor for the purposes included in its own global Cloud Data Processing Addendum.

Figure 26: Google Cloud Terms for export of audit logs[37]

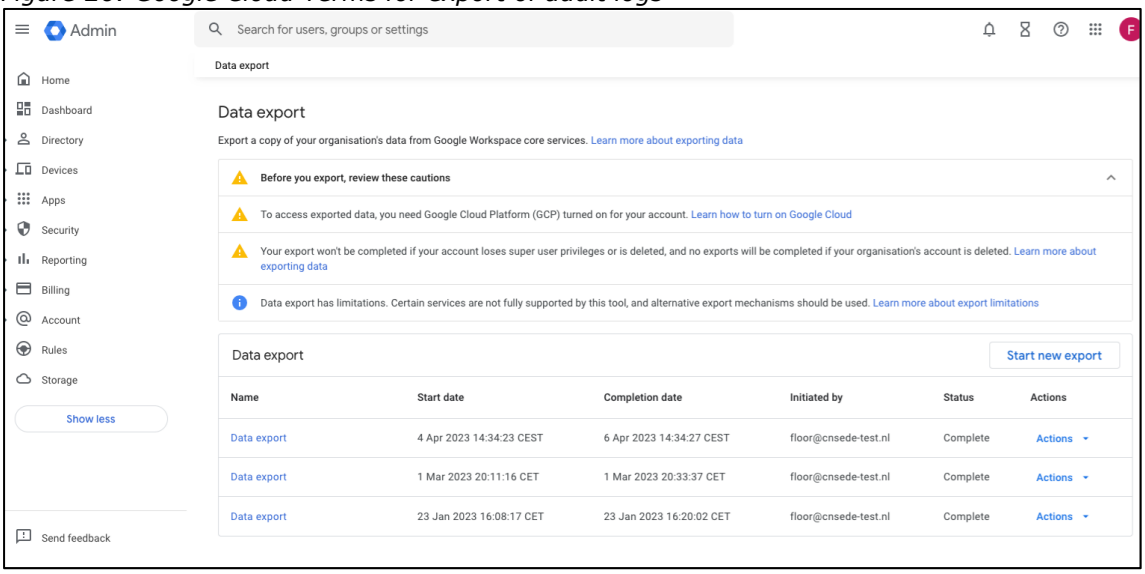
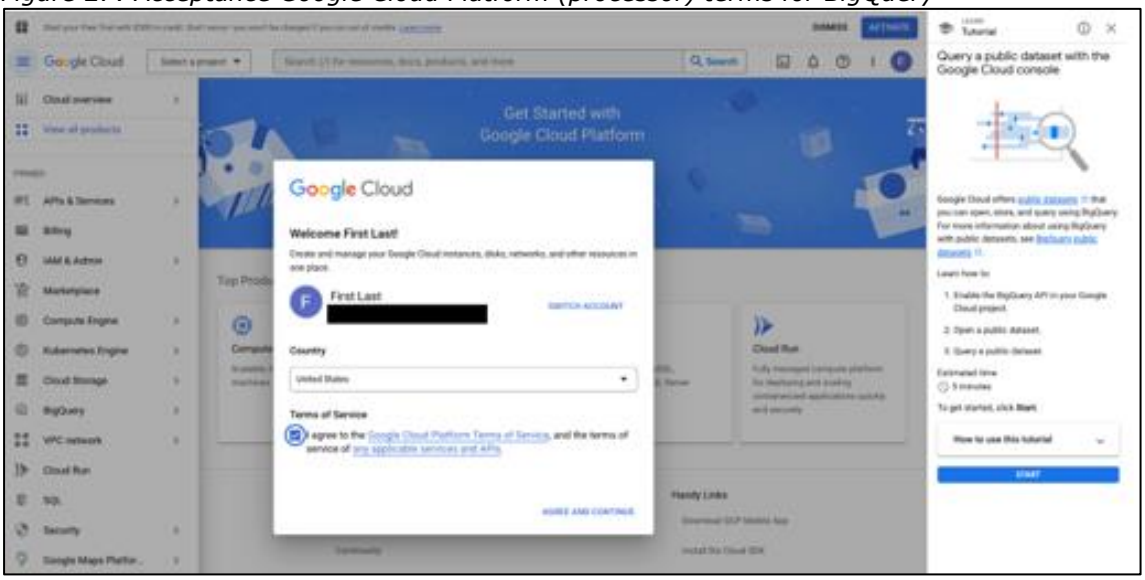


Figure 27: Acceptance Google Cloud Platform (processor) terms for BigQuery[38]



4. Domain Wide Takeout tool for admins to answer data subjects access requests

The fourth measure is the Domain Wide Take Out Tool, which allows administrators to export Content Data from a group, faculty or from the entire organisation. Google also offers administrators the ability to enable individual Take Out for end users, allowing them to download their own Content Data from Drive, Gmail, Calendar and Contacts. Both tools do not provide access to log data.

[37] Screenshot from the CNS-ede test environment, 12 June 2023. Admins are directed to visit the URL https://console.cloud.google.com/ to accept the Google Cloud Platform terms.
[38] Screenshot provided by Google, 9 June 2023.

In the test in the K-12 domain with Google Workspace for Education Plus, two things went wrong: firstly, the administrator had to turn on the *Additional Service* Google Cloud Platform for the Domain Wide Take Out tools, and secondly, the Take Out Tool did not work in environments with more than 1,000 accounts, as the Rijksuniversiteit Groningen has.

Figure 28: Mandatory use of Google Cloud Platform for data export

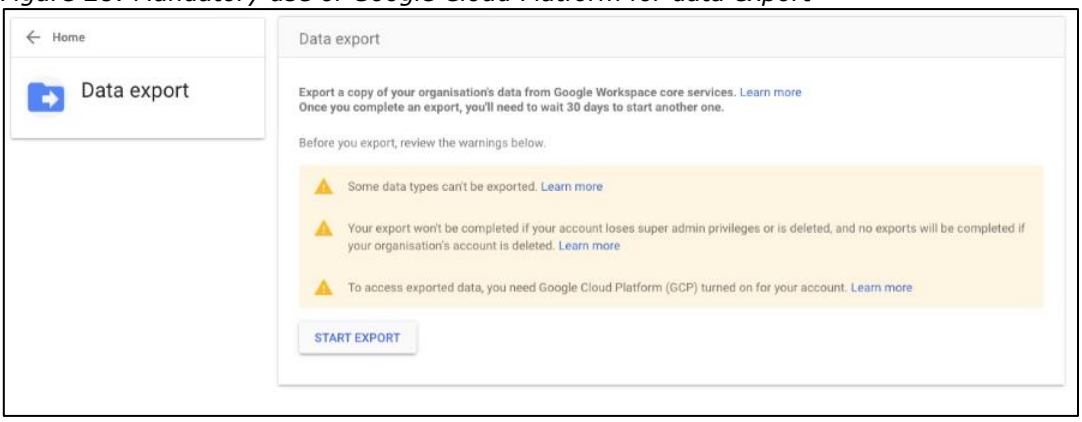
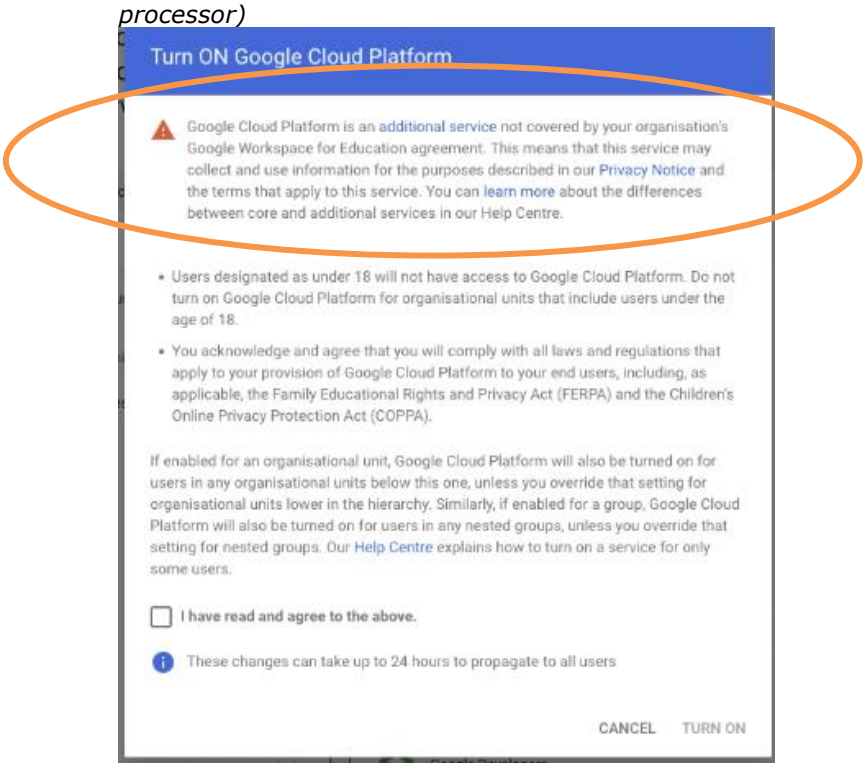
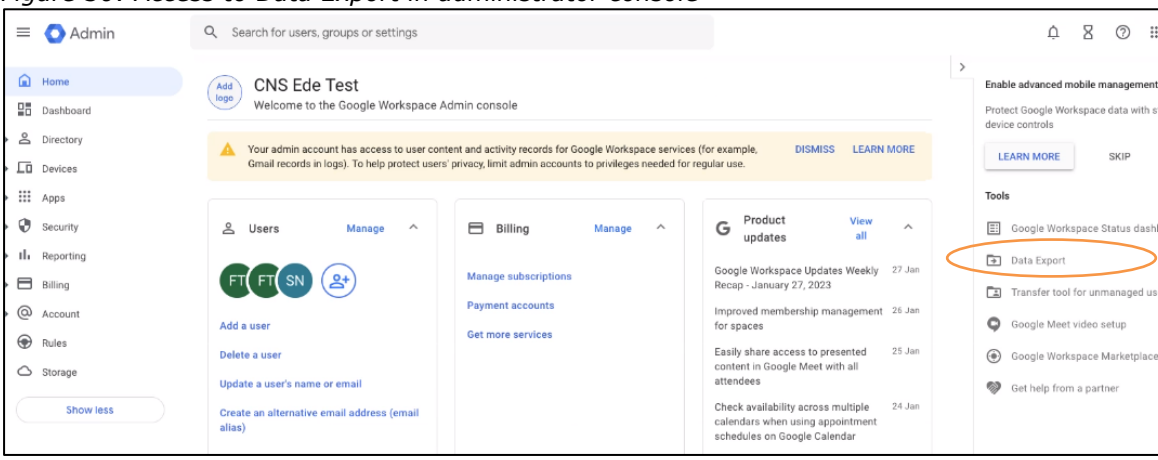


Figure 29: Privacy terms Google Cloud Platform (Google as controller instead of processor)



The Domain Wide Data export is not easy to find in the central Admin console. Access is not in the menu, but in a pop-up on the right.

Figure 30: Access to Data Export in administrator console



After the administrator determines the form of the export, Google emails when the results are available. In the tiny test environment, the export was ready within a few minutes, but it may take longer if there are more users of this tool, or if the tool is used in a larger *tenant*.

Figure 31: Data export menu administrator

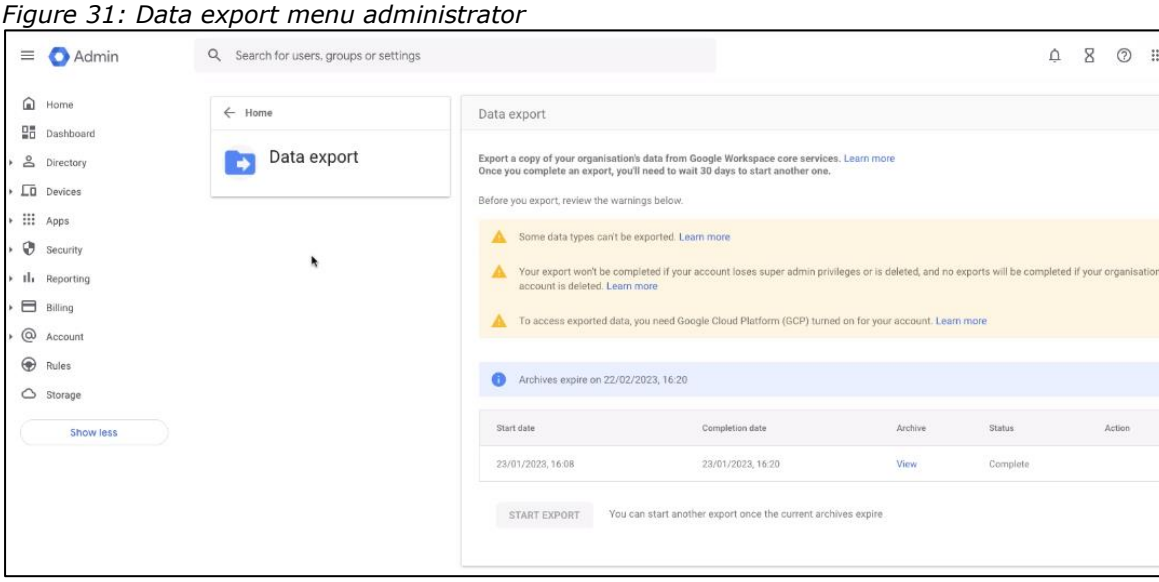
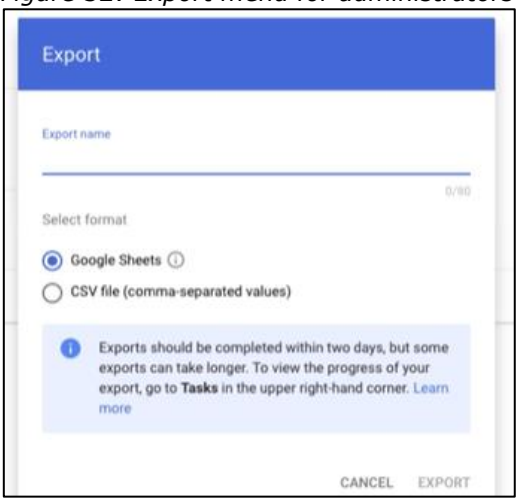


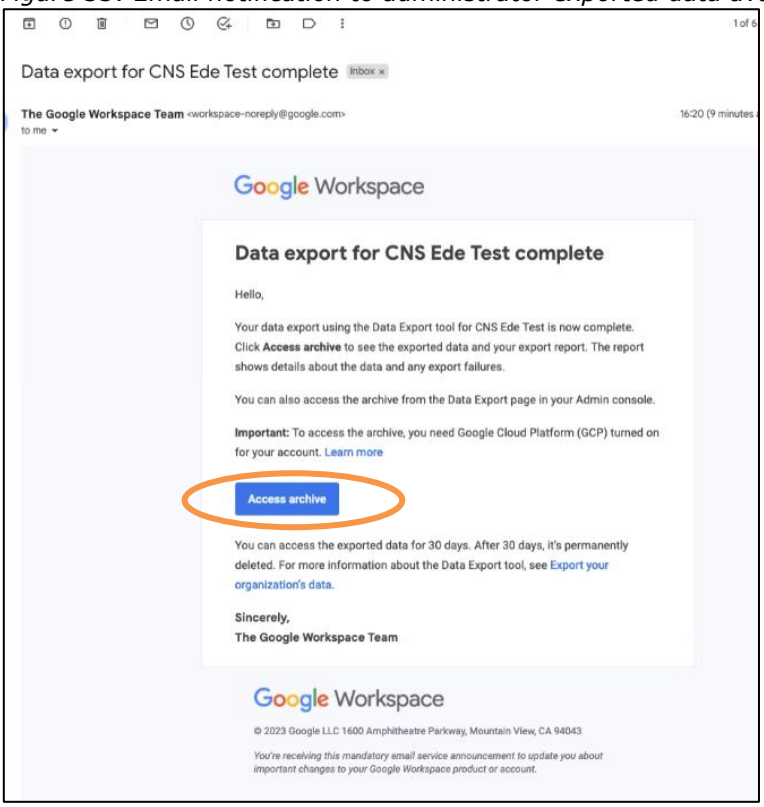
Figure 32: Export menu for administrators



In the university's Workspace for Education environment, the Domain Wide Data Export did not work because the university has more than 1,000 Google accounts. Google explained in the error message that administrators in that kind of large environment should contact Google Support.

> "*Your organisation should not have more than 1,000 users. If you have more than 1,000 users, you can request temporary access to the Data Export tool by contacting Google Workspace support*."[39] See Figure 34 below.

Figure 33: Email notification to administrator exported data available

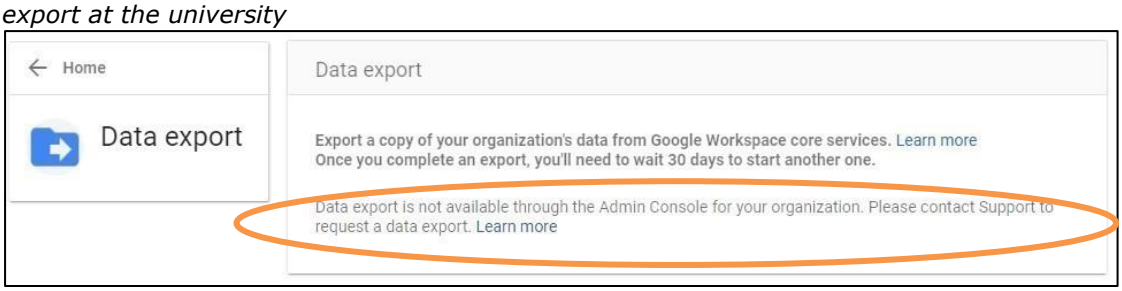


[39] Google, Export all your organization's data, URL: https://support.google.com/a/answer/100458?hl=en

In reply to questions from Privacy Company about the data protection measures for these data when Google Support accesses these data, Google has updated its public documentation, including the statement:

> *"The Google Workspace support team does not access or process the data that will be exported via the Data Export tool."*[40]

Figure 34: Screenshot of the error message in the administrator interface data export at the university



In the educational tenants, the administrator was able to enable the individual Takeout. Privacy Company has no reason to assume this wouldn't work in the Enterprise environment. The results of this individual TakeOut are discussed under the eighth risk (data subject access rights).

In sum, the Data Export contributes to the mitigation of the high risk of lack of data subject access. Admins can store the exported data in the Google Cloud, and query the export with BigQuery without risking further processing by Google of these Content Data for its own purposes as data controller. For large government organisations Google's assurance is essential that assistance from support employees does not change the purpose limitation agreed in the processor role of Google. The export does not change the data into Service Data which Google may also process for its own purposes..

5. Exhaustive list of subprocessors with their subsidiaries, and Google affiliates

The fifth agreed measure was the commitment to provide a limitative list of subprocessors and affiliates to the Dutch government, with details about their access to the personal data from government organisations. Google publishes a public version of that list[41] at and will make the list with extra information available to government organisations when they procure the Enterprise licenses. Both lists distinguish between (i) external companies and their affiliates, and (ii) Google affiliates, and describe their activities, such as technical support or maintenance. Both lists also include (the same) companies in third countries. The risks of transfer are separately assessed in the section about the 9th high risk, with the results of the DTIA.

Google explains that the subprocessors that provide technical support do not have access to Content Data unless the customer knowingly grants access to data stored in their own environment:

> *"These Subprocessors do not have access to Customer Data stored or processed by the Services. They only have access to Customer Data if Customer explicitly elects to enable such access in the course of a support*

[40] Idem.

[41] Google Workspace and Cloud Identity Subprocessors, Last updated: 18 August 2022, URL: https://workspace.google.com/terms/subprocessors.html.

> *case (e.g., by granting access to a Google Doc, Google Sheet, or Google Drive folder)."*[42]

Google explains that the second list of companies, which are part of the Google group, can process personal data for three types of work:

1. *Data Center Operations: Operates and maintains the Google data center and equipment that stores Customer Data. Subprocessor personnel do not require access to Customer Data to perform this activity.*
2. *Service Maintenance: Software and systems engineering, maintenance and troubleshooting. In the course of performing this activity the Subprocessor may require limited, authorized access to Customer Data e.g. to remediate technical issues.*
3. *Technical Support: Customer-initiated technical support: (...) In the course of performing this activity, the Subprocessor may require limited, authorized access to Customer Data to respond to Customer-initiated requests."*[43]

In the new list for Dutch government organisations, Google provides an extra explanation about the purposes for which its subprocessors and affiliates may process the Service Data for support purposes:

- *triage Customer's request and assign relevant personnel. For example, to perform this activity, the Subprocessor will process Customer's designated priority level for the request and information provided by the Customer about the issue specified in the request.*
- *diagnose and investigate the issue specified in the Customer's request (including, as appropriate, attempting to reproduce the issue and/or troubleshooting the issue with Customer), and identify potential ways to address it. For example, to perform this activity, the Subprocessor may need to process error logs impacting Customer's projects, account or environment, or Customer's settings and configurations for the Services.*[44]

Google also provides an extra explanation about access to Service Data for Service Maintenance purposes:

> *"In the course of performing this activity, the Subprocessor may require limited, authorized access to Service Data to identify, address and fix security threats, and to remediate technical issues. For example, the Subprocessor may process:*
>
> - *Aggregated Service usage log data to assess the operational status of the Services for Customer and detect anomalies.*
> - *Aggregated diagnostic information to identify technical issues that may occur, such as application crashes."*[45]

With these extra explanations, Google has complied with the fifth agreed measure. With the extra information about the subprocessors, Google has also remedied the seventh high risk (see below).

<u>The sixth and seventh agreed measures are discussed under High risk 3.</u>

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[42] Idem.

[43] Idem.

[44] Specific subprocessor page provided by Google to SURF and SIVON. soon to be published.

[45] Idem.

Conclusion: fourth high risk mitigated

Google has mitigated the high risk of lack of transparency of the Diagnostic Data by a number of measures. Google has developed a tool to view the last 24 hours of Telemetry Data as well as a tool for super admins to access historical Telemetry Data, expanded the admin access to Diagnostic Data via audit logs and ensured admins can securely export data from the Domain Wide Takeout tool to Google Cloud services, including BigQuery, with Google in a processor role (not an *Additional Service*). On 9 June 2023 Google has also completed the agreed measure to publish adequate documentation about the Telemetry Data and updated its documentation about its subprocessors and subsidiaries.

High risk 5: Lack of legal ground

This risk originated from Google's role as controller, and had three components:

1. Additional Services
2. Support tickets
3. Reading of non-necessary data from end user devices (cookies and Telemetry Data)

1. Additional Services

The first part of this risk was about the legal ground for Google's own purposes as a data controller for the processing of personal data of pupils and students through *Additional Services* such as YouTube and Search.

It is a fact that Google Search has a huge market share in the general search engine market, while YouTube is a highly popular video platform also used by government organisations to show recorded meetings and speeches. It is therefore plausible that government employees will (want to) use this service on a daily basis. Therefore, there will be great pressure on system administrators to enable access to these *Additional Services*.

Contractually, Google is prohibited from relying on consent from employees. Google agrees contractually that end user consent is not applicable as ground for sharing Service Data with third parties when those parties' services are disabled by the Customer (including Google as third party for *Additional Services*).

Government organisations should instruct employees to pay attention to the profile icon in the top right corner of the screen. As soon as that profile icon disappears, the negotiated privacy protections no longer apply. Additionally, system administrators should tell end users not to set Google Search as the default search engine in their browser of users, and to only visit YouTube in the browser's incognito or private mode.

2. Support tickets

The second part of this risk, about Google's role for support tickets with attachments, has also been mitigated. Based on the Google Cloud Master Agreement with the Dutch government, Google has become a processor for the Technical Support Services, and thus also for any attached Content Data. Based on the agreement Google may also *further* process these data for the limited agreed legitimate business purposes, when necessary.

3. Reading of non-necessary data from end user devices (cookies and Telemetry Data)

The third risk relates to the legal consent requirement for cookies and Telemetry Data. Under statutory law, Google must comply with the locally implemented rules from the ePrivacy Directive.. This means that Google must seek consent for non-functional

cookies and other information it reads from the end user's device. While most of the Telemetry Data Privacy Company has seen through the DIT contain information that may fall under the specific Dutch exception for analytical information, the appearance of Content Data in events related to the Grammar and spell check appeared to require consent. As explained in the section about the fourth high risk, and shown in Figure 17 above, Google has convincingly explained why this data collection is strictly necessary for the functioning of the requested Spelling and grammar check service, as the entire processing takes place in the browser on the end user device, and Google has no other way of collecting information about the accuracy of the service. Google has also explained it applies the shortest retention period of 30 days to these Content Data.

Conclusion: fifth high risk mitigated

Google has mitigated all three identified components of the fifth high risk through a combination of contractual and technical measures, provided that government organisations block access to the Additional Services.

High risk 6: Missing privacy controls

Google has taken the three agreed mitigation measures to mitigate the sixth high risk.

1. Administrators can centrally prohibit the use of Additional Services with a Workspace for Education account.
2. Google has changed the default ads personalisation setting for new Workspace Enterprise users: it is now off by default.
3. While there is no way for administrators to centrally disable Workspace Spelling and grammar check, Google has committed not to reuse content from the Spelling and grammar check outside the tenant. This is not explicitly stated in the Workspace Enterprise agreement, but it is in two of Google's public documents: the Workspace Data Protection Implementation Guide and the Security whitepaper. Because Google makes public commitments, Google is also beholden to compliance under US law.

Conclusion: sixth high risk mitigated

Google has mitigated the three components of the sixth high risk through technical and contractual measures.

Conclusion: sixth high risk mitigated

In Table 1 in this report, the fifth and sixth risk have been merged.

High risk 7: Lack of control subprocessors and affiliates

As explained under the fourth high risk, Google now publishes an exhaustive list of subprocessors with their affiliates, and subsidiaries (members of the Google group). [46] For the Dutch government organisations, the list has been expanded with information about the access from these parties to Service Data.

[46] Google Workspace and Cloud Identity Subprocessors, URL: https://workspace.google.com/terms/subprocessors.html Google explains: "*They only have access to Customer Data if Customer explicitly elects to enable such access in the course of a*

The two lists are different, because Google normally does not process the Service Data as processor. Hence in its global communication Google cannot call the companies it engages for support and maintenance subprocessors. The list for the Dutch government organisations begins with the following explanation:

While the subprocessors listed in each resource are exactly the same, the resources are different because Google normally does not process the Service Data asprocessor. Hence in its global communication Google cannot call the companies it engages for support and maintenance "sub-processors". The list for the Dutch government organisations begins with the following explanation:

> *"This webpage only applies where, under the applicable agreement for the Google Workspace and Cloud Identity Services, Customer has elected to instruct Google to process Service Data as a processor. In all other cases, the information about Subprocessors for Google Workspace and Cloud Identity Services is available at https://workspace.google.com/terms/subprocessors.html."*

Google has ensured that all subprocessors, including their affiliates, and Google's subsidiaries are bound by Google's contractual arrangements with government organisations.

> "[**Confidential**]*"*[47]

[**Confidential**].

Google has clarified that subprocessors and subsidiaries that are given access to Content Data (Customer Data) also have access to Service Data. Google describes in its public documentation (the list of subprocessors) that staff at subprocessors can only access Content Data if the customer gives permission, for example by granting access to a Google Drive folder. This limited access for support purposes (only in reply to a request from a customer) also applies to subsidiaries:

> *"In the course of performing this activity, the Subprocessor may require limited, authorized access to Customer Data to respond to Customer-initiated requests".*

Google has also explained the limitations of access to Service Data. For support issues, employees can access error logs impacting Customer's projects, account or environment, or Customer's settings and configurations for the Services, but only in reply to a reported problem. With regard to maintenance, generally staff only gains access to aggregated data. The probability of such access to personal data by subprocessors in third countries is discussed in the separate DTIA (see the section below about the 9th high risk).

Conclusion: seventh high risk mitigated

Google has expanded its documentation about its subprocessors and subsidiaries. The risks of transfers of personal data to subprocessors and subsidiaries in third countries are assessed in the separate DTIA, as summarised in the section about high risk 9 (below in this report).

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support case (e.g., by granting access to a Google Doc, Google Sheet, or Google Drive folder)."

[47] Google Cloud Master Agreement with the Dutch government.

High risk 8: Lack of data subject access to personal data

The Update DPIA identified a high risk relating to (lack of) data subject access, in particular to the Diagnostic Data (including Telemetry Data, data from Google's security logs and data related to webserver access logs and cookies). In reply, Google referred to

1. Existing self-service tools for end-users
2. New access tools for admins
3. Google's own Data Subject Access Request form, and
4. A new explanation with legitimate reasons to refuse access to some personal data.

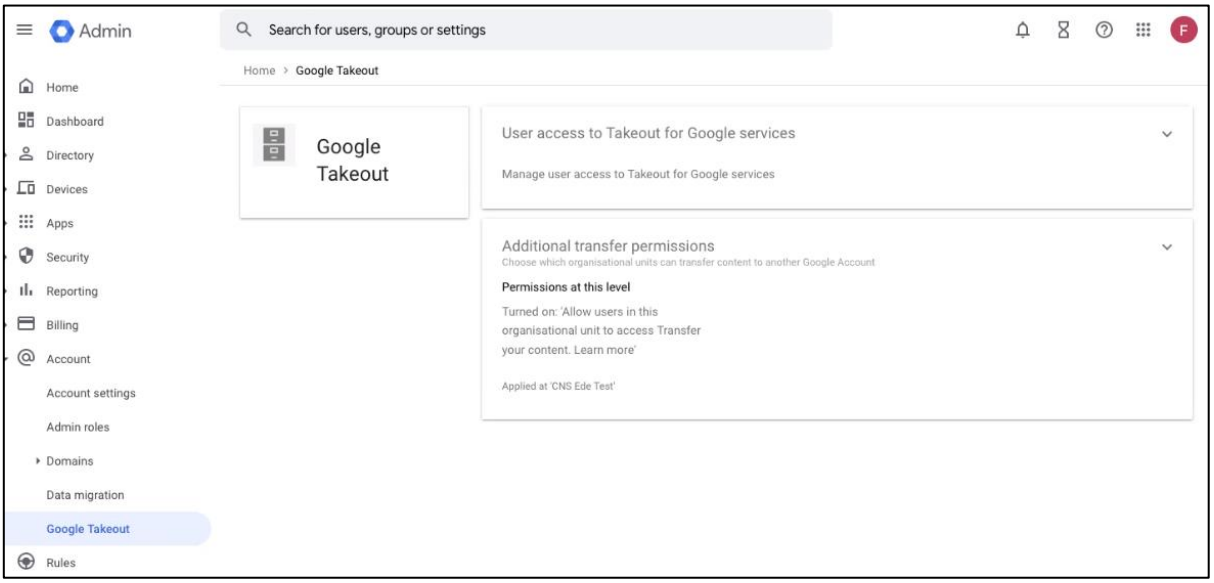
1. Self-service tools for end users

Google describes in its Workspace Data Subjects Requests Guide that users have access to several self-service tools to download their data, and can ask admins for an export of data.[48] Google also provides a help center article with hyperlinks.[49]

2. Access tools for admins

Google has developed an individual TakeOut tool that administrators of Workspace for Education environments can enable. As shown in Figure 35 below, the admin can give users permission to takeout their own personal data.

Figure 35: Screenshot administrator interface university for individual Takeout Gmail and Drive files

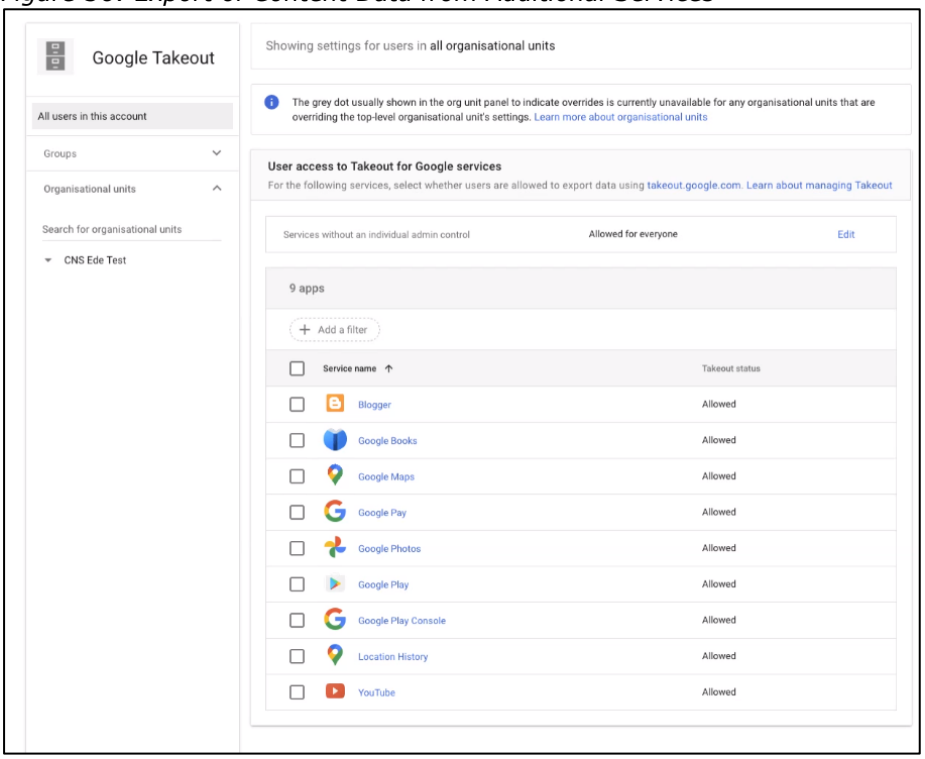


The administrator can also authorise users to export data from some specific *Additional Services*: but these should be disabled.

[48] Google Workspace Data Subject Requests (DSR) Guide, last updated February 2022, URL: https://services.google.com/fh/files/misc/gsuite_dsr_customer_guide.pdf.

[49] Google Privacy Help Center, URL: https://support.google.com/policies/answer/9581826?hl=en.

Figure 36: Export of Content Data from Additional Services



Privacy Company tested the individual export via https://takeout.google.com. Users can also export limited individual log activity data via this tool. The export is limited to the same data that are also available via https://myactivity.google.com/myactivity.

Figure 37: Screenshot of individual TakeOut: choice of log files

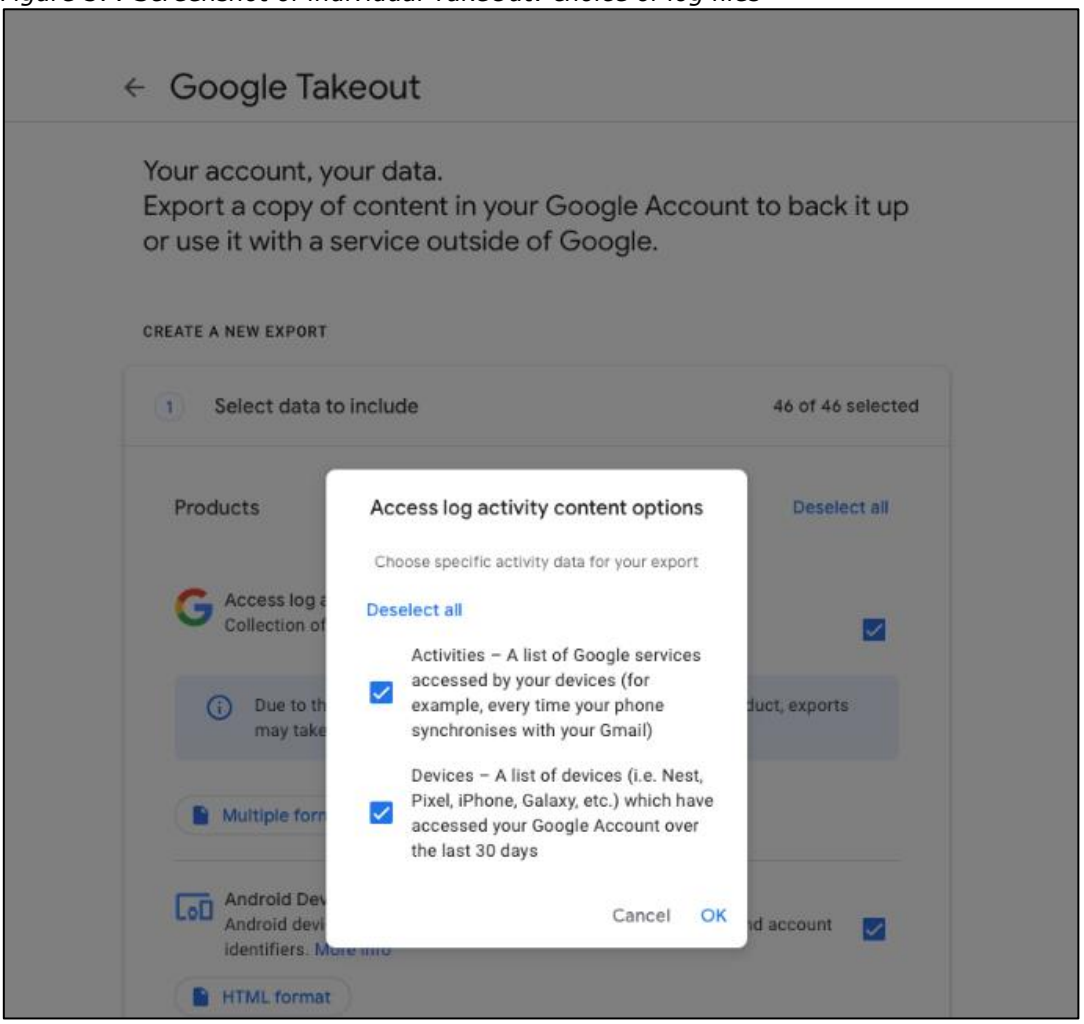


Figure 38: Screenshot of individual TakeOut: choice for additional information about Drive files

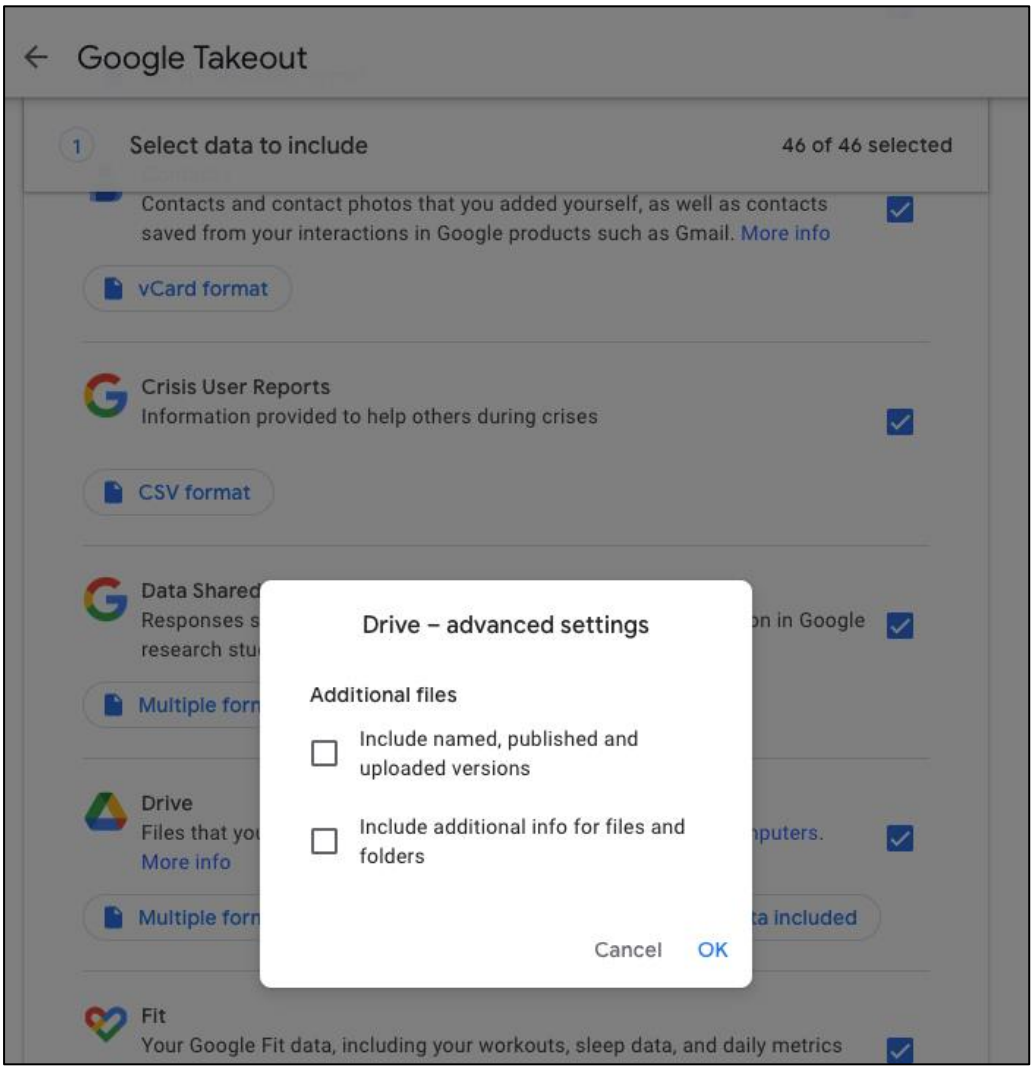
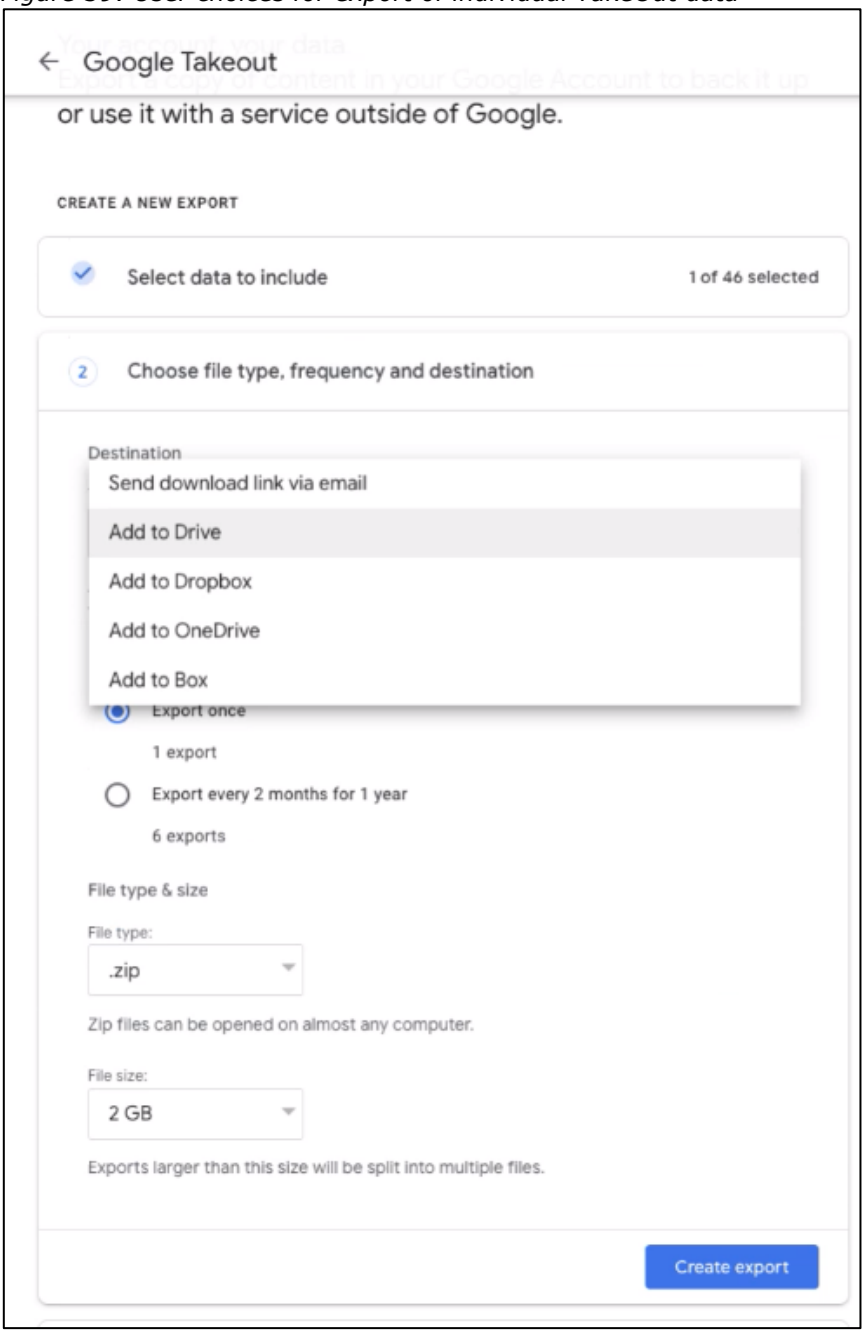
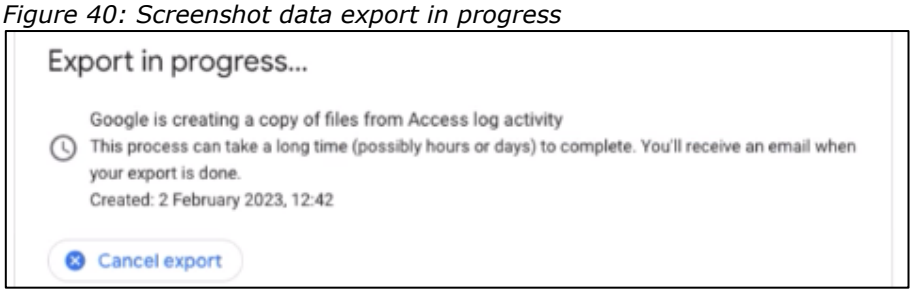


Figure 39: User choices for export of individual TakeOut data



Google explains that exporting the individual logs can take hours or days.

Figure 40: Screenshot data export in progress



The exported activity logs are also available via the Google Account Dashboard and Activity Dashboard. These logs provide insight into which Google services a user has used recently, and for example, who viewed a shared file when, but no detailed log data.

Figure 41: Screenshot activity logs via Google Dashboard

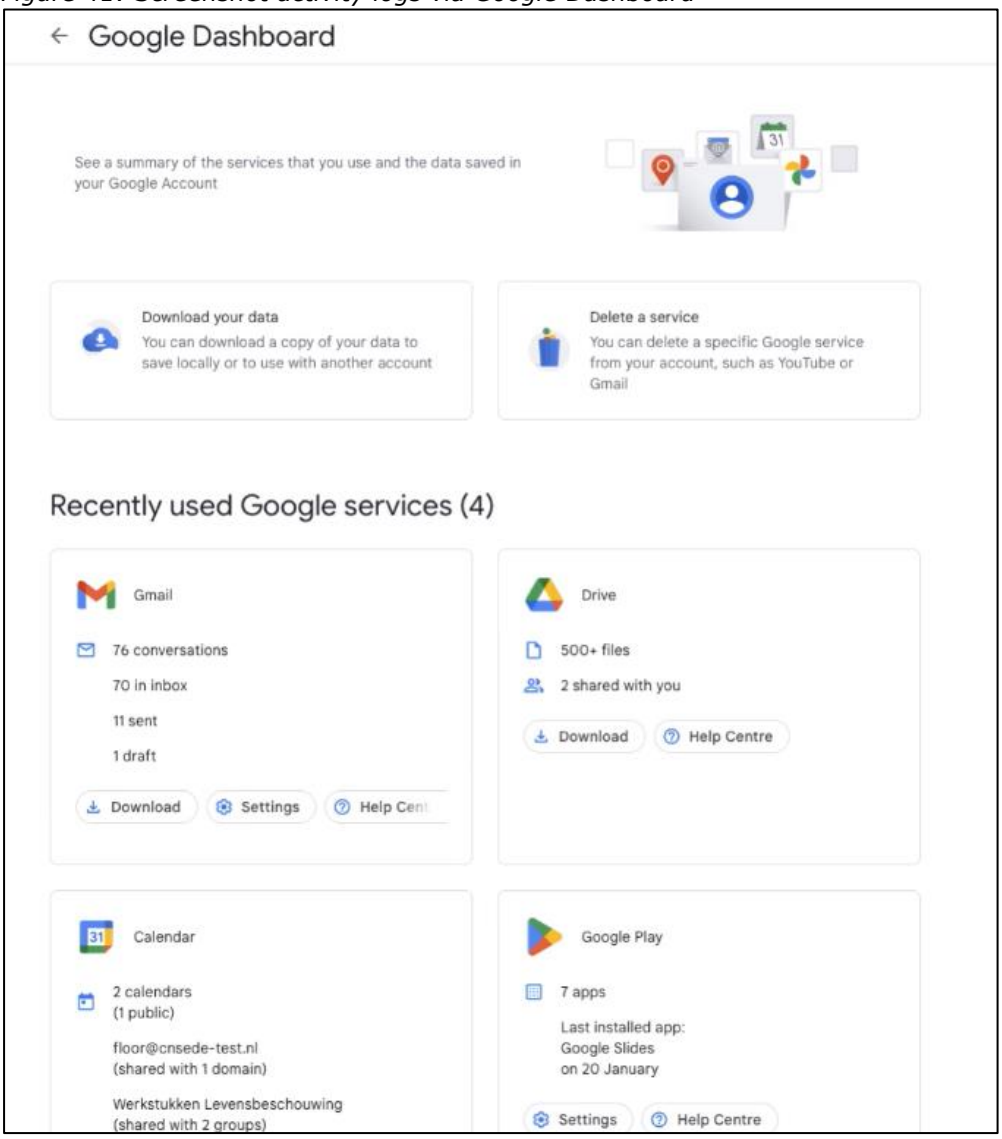
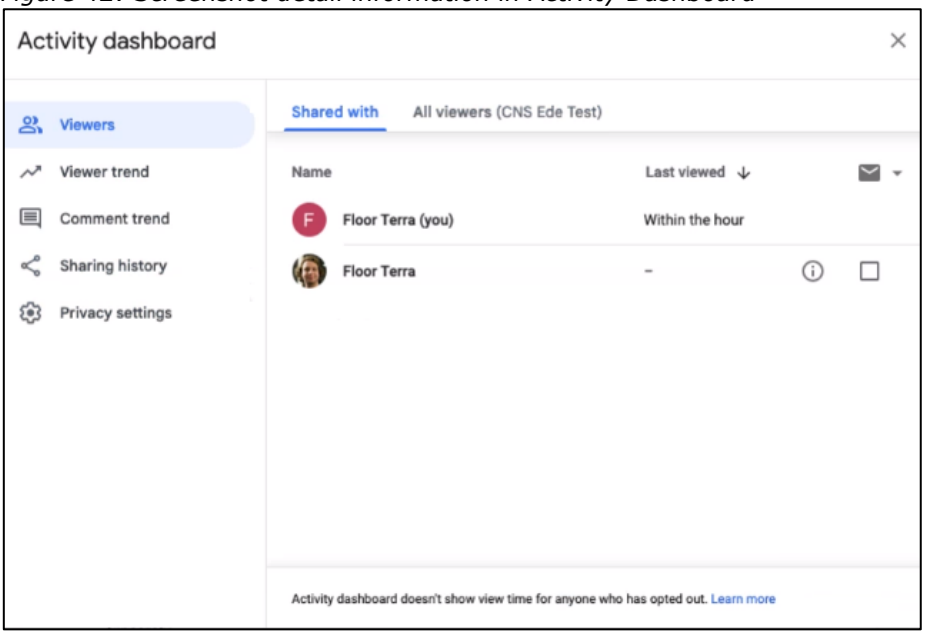


Figure 42: Screenshot detail information in Activity Dashboard



Though the individual Takeout tool is a very helpful tool for end users to obtain access to their Content Data, and to gain some insights in the types of activities processed by Google, the tool does not provide access to the Diagnostic and Telemetry Data processed by Google.

As described above, under High risk 4, Google has developed the Diagnostic Information Tool and a process for super admins to obtain access to historical Telemetry Data. Google has also expanded the availability of audit logs for admins, which they can export to query for individual log data.

The only other personal Diagnostic Data that were missing in reply to the Data Subject Access Request filed by Privacy Company were personal data relating to Google's security logs, and personal data relating to webserver access logs and cookies. Google's reasons to refuse access to these data are discussed below.

3. Google's DSAR form

To complete the list of tools to obtain access to personal data, Google has a DSAR form.[50] Users can use this form when Google processes data as data controller (including the 7 agreed Legitimate Business Purposes). This form is not very user friendly. A user must (still) type in their own description of data categories, rather than being able to select categories from a drop-down menu. Users cannot be expected to know or accurately describe the available data categories.

Therefore, government organisations are advised to provide guidance to students and employees about the different tools to access personal data, and how to use the DSAR form.

Table 3: Overview of data subject access tools

Type of Data Subject Access tool	Output data
Download Content Data by logging in to the Google account	Content Data

[50] Access via Google after log-in, URL: https://support.google.com/policies/contact/sar?hl=en

My Activity (saved activity)	Activity Data such as browsing history and searches
Download data via individual Google Takeout (if enabled by admin)	Content Data, Account data, Play Store and Access Log Activity, also relating *to Additional Services* when enabled.
Diagnostic Information Tool (via admin)	Telemetry Data limited to the last 24 hours
Organisation Data Export (via admin)	Content and Diagnostic Data
Historical Telemetry Data (via super admin)	All available historical telemetry data, through the super admin of the organisation
Google Data Access Form	Request all available personal Google processes as data controller in relation to the Workspace for Education account, except for the Content Data and activity logs that the user can download via the self-service tools.

Google has committed to providing an individual answer if an end user uses the DSAR form, even though it explains it will automatically reply with a reference to the self-service tools in its first response, while it is still querying for specific data.

Google has also committed to inform end users and provide access to an appeal procedure if they are flagged in a copyright complaint or, for example, a CSAM filter, unless legally prohibited.

4. Google's reasons to refuse access

Google has updated its information page with general explanations on reasons why it does not provide access.[51] These reasons include:

1. Information relating to someone else
2. Anonymised data
3. Data Google cannot reliably relate to the requesting data subject
4. Data that could be used to undermine the security of Google's systems
5. Data that could infringe on the rights and freedoms of others (for example, legal privilege)[52]

The reasons Google does not provide separate access to logged data about cookies is that Google maintains it cannot reliably identify the person behind a cookie. Google explains in its Privacy Help Center:

> "*A user's knowledge or possession of information (e.g. forwarded emails, details of IP addresses from which an account was accessed or cookie IDs), taken alone, is generally insufficient to verify that the user making a request is the individual to whom such data relates.*
>
> *For example, emails, IP addresses or device information could be obtained by third parties through various means, such as a spouse/partner that shares a*

[51] Google, Information not provided in response to an access request, URL: https://support.google.com/policies/answer/10972441.
[52] Idem.

> *device or gains access to an account of their partner forwarding emails to themselves which they subsequently submit in order to hijack an account. Similarly, third parties could alter the contents of automated emails so that they appear to relate to a different account. Similarly, IP addresses and cookie ID, taken alone, are generally inadequate for verification purposes for many reasons, including because they can be shared by a number of different people at the same time.*"[53]

With regard to the Security Data, Google explains that it does not categorically refuse access to personal data processed in security logs, as many of these data, such as device fingerprints and IP addresses are available in other copies of the data, used for other purposes. Google only refuses to provide access to what it calls

> "*sensitive configuration details, commercially sensitive indications of our approach to backup and archiving, and, most importantly, embodies architectural information about our approach to defense-in-depth.*"[54]

Google explains:

> "*If certain detailed information, about our system defenses, and the data we process through them, such as how low-level data structures are laid out in memory, were to become known, it could give potential bad actors valuable signals that could be used to exploit our systems.*"[55]

Privacy Company did not perform a retest of filing a data subject access request. As established in the Update DPIA report, it is up to the supervisory authority, the Dutch Data Protection Authority, to assess whether Google (in its role as data controller) complies with the requirements of the GDPR in reply to data subject access requests, if a user complains that the access would be insufficient.

Conclusion: eighth high risk mitigated

Google's different access tools provide access to many personal data. Google allows end users to download many data via self-service tools, and has taken measures to allow admins much more access to, and export of, the Diagnostic Data available in audit logs. These measures mitigate the high risk of a lack of data subject access when Google acts as processor.

As data controller (for the agreed 7 legitimate business purposes, and for the *Additional Services*) Google has provided an expanded explanation of possible refusal reasons, and has committed to provide an individual answer to each request filed through its controller DSAR form. As established in the Update DPIA report, it is up to the Dutch Data Protection Authority, when they receive a complaint) to assess whether Google (as a controller) complies with the requirements of the GDPR.

High risk 9: Transfer to third countries

SLM Rijk has analysed the transfer risks in a separate project with Google, together with SURF and SIVON in the context of a Data Transfer Impact Assessment (DTIA).

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[53] Google Privacy Help Center, URL: https://support.google.com/policies/answer/9581826?hl=en, under 'Can I use other information related to or from a Google account to access data associated with that Google account?'

[54] Google, Information not provided in response to an access request.

[55] Idem.

Google has provided many assurances about the very low probability of compelled disclosure. However, the probability of unauthorised access is not zero, since Google does not disclose statistics about disclosure to security services/intelligence agencies in the USA or the third countries.

The conclusion of the DTIA is that the transfers do not lead to high data protection risks for users of Google Meet, except when they exchange sensitive or special categories of data. Unauthorised access to these data in readable format has a very high impact on the data subjects. Therefore, the data protection risk must be qualified as high, in spite of the very low probability that the risk will materialise. To mitigate this risk, government organisations can encrypt these conversations with self-controlled keys. However, the use of Client Side Encryption (CSE) for Meet requires non-trivial system operator skills and perseverance of end-users. That is why the DTIA assumes that most government organisations will not apply CSE.

Contents of the DTIA and collaboration with Google

Since 10 July 2023, based on the new adequacy decision from the European Commission for the USA, the USA no longer have to be treated as a third country, for participants to the EU US Data Privacy Framework. SLM has been informed by Google that it has self-certified as participant to the EU US Data Privacy Framework (DPF).[56]

[**Confidential**]

The DTIA consists of 6 separate risk assessments, for

1. Content Data
2. Account Data
3. Support Data
4. Diagnostic Data
5. Security Data (including complaints to the Trust & Security Team), and
6. Website Data.

These six categories were chosen because the nature of these data leads to a different probability of compelled disclosure orders from government authorities in the third countries, and a different impact on the data subjects in case of such a disclosure. Google only uses two categories of data: Customer Data and Service Data. This remains confusing, in spite of Google's explanations, because Support Data can be either Customer or Service Data. Support Data can both include information actively provided by a customer to Google in a support ticket, as well as the Diagnostic Data generated as a result of a problem. The same confusion applies to Account Data: if a government organisation provides a name and creates an account for an employee, logically such data would be part of Customer Data, but Google qualifies all Account Data as Service Data.

This DTIA was finalised on 11 January 2024 with the last input from Google, though most of the analysis was completed on 22 October 2023. The DTIA is based on a model provided by the Swiss lawyer David Rosenthal, as modified by Privacy Company. The scope of the DTIA is limited to the Workspace videoconferencing service Meet.

[56] Data Privacy Framework list of active participants, search 'Google LLC', URL: https://www.dataprivacyframework.gov/list . Workspace Enterprise is not mentioned as covered service.

Onward transfers from the USA to 7 third countries

The DTIA contains an elaborate calculation of the probability of access in a third country in relation to the impact of unauthorised access on the data subject.

Five of the six categories of data (not the Security Data) can be accessed by Google employees, when authorized, in seven third countries, and in the USA, for 2 purposes: (1) service and infrastructure maintenance and (2) troubleshooting of all kinds of technical issues, releasing new code, making configuration changes or emergency maintenance purposes as well as mitigation of customer-initiated support requests.

These seven third countries are:

1. Australia
2. Brazil
3. Chile
4. Hong Kong
5. India
6. Singapore, and
7. Taiwan

Google has explained that customers can view the availability stats of Meet in the Netherlands to make an estimate of the probability of such transfers. These stats show an average uptime of 99.993 per cent. That means the service Meet is down for an average of 3 minutes per month in the Netherlands. This translates to an availability of replicated data of 1 hour and 15 minutes in total during the last 2 years.

Since the new adequacy decision, [**confidential**].

Google has not yet shared its legal analysis of applicable laws and their compliance with the EU fundamental right guarantees offered to data subjects in the 7 third countries. Google claims that this analysis is covered by legal privilege. Because of this lack of information, the risks in the DTIA are calculated on the assumption that there are laws in the third countries that do enable government to order compelled disclosure, as well as laws that prohibit Google from informing its customers about such orders.

Optional transfers to 12 third countries

Additionally Google LLC engages subprocessors in 12 third countries for support. This transfer only applies if a customer asks for support, and explicitly elects to enable access to personal data in the course of a support case (e.g., by granting access to a Google Doc, Google Sheet, or Google Drive folder). In that case, the personal data may be transferred to 12 third countries (without an adequacy decision from the EU).

These 12 third countries are:

1. Australia
2. Brazil
3. Chile
4. El Salvador
5. Guatemala
6. Hong Kong
7. India
8. Malaysia
9. Mexico
10. Philippines
11. Singapore

12. Taiwan

The DTIA assumes that Dutch government organisations will not allow access by Google support employees in any of these 12 third countries.

Low probability of unauthorised disclosure

For each category of personal data the DTIA contains an elaborate calculation of the probability of access in a third country in relation to the impact of unauthorised access on the data subject.

The DTIA concludes that the probability of compelled disclosure to government authorities in the 7 third countries in the assessment period of 2 years varies between 0.06% for the Content Data, 2,53% for the Account Data, 0.11% for the Support Data, 3,81% for the Diagnostic Data and 3,43% for the Website Data. Only the Content Data can contain special categories of data: this is not the case for the other categories of personal data.

The Cloud Master Agreement with the Dutch government contains contractual arrangements with respect to legal process and disclosures.

[**Confidential**]

The low probability of unauthorised disclosure is based on the following 7 statements made by Google:

1. Google has explained that the probability of the transfer of personal data to these third countries is very low, based on zero access in the past 2 years: "*Google service maintenance engineers located in Australia, Brazil, Chile, Hong Kong, India, Singapore, or Taiwan have not accessed any Google Meet Customer Data or Service Data belonging to public sector or education institutions located in the Netherlands in the past two years.*"
2. Google writes that "*it has not provided any government with direct access to any information stored in its data centers, including data stored or processed by the Meet application (i.e. including direct access for security services).*"
3. Google has further explained it "*never gives any government 'backdoor' access*" and "*Google will not disable security features or alter Meet systems to allow third parties to gain access to Customer Personal Data that would otherwise be unavailable to a third party in clear text.*"
4. Google has explained it has "*not disclosed any personal data belonging to public sector or education institutions located in the Netherlands in response to requests from law enforcement agencies (such as requests made under warrant or subpoena) based in Australia; Brazil; Chile; Hong Kong; India; Singapore; Taiwan; or the United States (US), nor voluntarily disclosed any data from Dutch government and education organisations in reply to requests from law enforcement in emergency situations in the past 2 years.*"
5. Google has explained that the probability of (readable) access to both the streaming and stored Meet Content Data is very low, even absent Client Side Encryption. "*For context, the nature of Google Meet is such that the Customer Data that is 'generated' during a meeting is predominantly transient. For example, video and audio streams of a conversation between two Meet participants (e.g. a teacher and student). Google support agents would have no reason to join such a meeting as that would not be required for their role. Google Meet includes measures by default that prevent non-invitees from being able to join without explicit host admission. While recordings of Google Meet meetings (and other artifacts, like attendance reports, transcripts, etc.) can be*

stored in Google Drive, Google support personnel would not be able to access that data unless the customer raised a support case and provided the agent with access to the Drive file(s)."

6. Google employees can incidentally be tasked to look at problems from Dutch customers with Meet, but they cannot 'search' for any customers' personal data, including Diagnostic Data. Google explains: "*Access is entirely dependent on the specific activity they need to perform and only occurs where absolutely necessary to e.g. address the specific technical issue they are investigating.*" Google has taken many access control measures to control access to the data. Google explains: "*An employee's authorization settings are used to control access to all resources, including Customer Data, Service Data and Google Meet systems. Even if an employee has the appropriate authorization to access Customer Data or Service Data, they must still provide a justification tied to a specific technical issue otherwise access to that data will be rejected. All technical issues are individually tracked using a unique case ID, and employee justifications are periodically reviewed. This means that it is not technically possible for an employee to access Customer Data or Service Data that is not required for them to investigate and resolve specific technical issues tasked to them. Access is monitored by our dedicated security teams as a check on the effectiveness of our controls. The security teams actively monitor access patterns and investigate unusual events.*" In reply to a question from Privacy Company about log controls, Google stated it has "*not detected any unauthorised usage by engineers in the third countries in the past 2 years to a) Customer Data and b) Service Data.*"
7. To further reduce the probability of compelled disclosure, Google is "*on schedule*" with its publicly announced expansion of the data region choice for Education Plus customers with access controls to prevent access for support outside of the EU, processing-in-region along with an in-country copy by the end of 2023. Dutch government Workspace Enterprise customers can also enable Access Transparency to view any access to their data by Google support employees.

In relation to statement 6 above, Privacy Company has studied the confidential SOC-2 and C5:2020 audit reports about Google Workspace. These reports do not note any deviations/findings with regard to access to Content Data, including disclosure of Content Data to third parties to fulfil requests.

However, the probability of unauthorised access is not zero, since Google does not disclose statistics about disclosure to security services/intelligence agencies. Google has explained that it may only report about such orders in ranges.[57] This clearly applies to FISA orders and NSL letters in the USA. Absent access for the Dutch government organisations to Google's own analysis of applicable law and probability of compelled disclosure to government authorities in the third countries, the DTIA assumes that Google can also be subjected to gagging orders from security services in the 7 third countries, and not permitted to inform its customers.

High impact sensitive and special categories of data

It is plausible that government organisations want to use Meet for confidential talks, such as an online assessment, a job interview or reporting of a criminal offense. During such meetings, special categories of data may be exchanged. The impact of

[57] Google, United States national security requests for user information, URL: https://transparencyreport.google.com/user-data/us-national-security?hl=en

unauthorised access to such data by government authorities in the third countries is very high. Even though the probability of compelled disclosure of such recorded data is very low, the transfer of such data to the 7 third countries leads to a high risk for the data subjects. Therefore the transfer of special categories of data is not permitted, unless the government organisation applies a self-managed key to encrypt the data. Google does not offer an in-built functionality in Meet for end-to-end encryption with a self-managed key, because that would still theoretically enable Google to retrieve the key (via for example a browser modification). Instead, Google describes a possibility for administrators to run their own key server, and be in full control over the key, Meet Client-Side Encryption.

Privacy Company has tested the effectivity of CSE for Meet with a self-controlled Flow Crypt key server, and a third party (open source) identity provider. It worked, but with difficulty. Currently, admins cannot centrally enforce the use of CSE for Meet, but Google has plans to enable this in the future. [**Confidential**] Enabling the encryption automatically disables all features that require intervention from Google, such as recording and live streaming. Government organisations can nonetheless decide to use CSE. Currently, if an end user voluntarily uses CSE, Google show a warning that adding extra encryption prevents users from using the features recording, live streaming, connecting with a phone, use of breakout rooms, host management, polls, Q&A, noise cancellation, whiteboarding or transferring calls between Google Workspace apps. This warning further discourages users from using the encryption.

Use of CSE also requires a significant financial investment from the government organisations that plan to deploy Workspace Enterprise. Few organisations have the expertise to set up a self-managed Key Management Service (KMS). Government organisations generally depend on an IT partner for implementation. These IT partners generally do not create or maintain self-managed open source solutions. They tend to rely on existing (paid) solutions. The existing (European) KMS providers for Google Workspace CSE are: Storm shield, Flowcrypt and Thales. The government organisations also have to invest in user training in using CSE.

Another identified issue with CSE for Meet is the impossibility to invite guest users without a Google account to use Client-Side Encryption in a government initiated Meet (for example, in a discussion with a citizen about a decision). Google explains in its public article about CSE in Meet: "*The knocking capability to allow a guest is disabled.*" If government organisations do apply CSE, they can only use CSE in meetings with citizens that have a (professional) Google account.

Finally, admins must once use the Google Cloud service to create an API-key (to allow the external key server to talk to Google), a service that is outside the negotiated Workspace contract because Google Cloud is an Additional Service in Workspace. Google has assured the Dutch government that it is a processor for this limited use of the Google Cloud Platform in this case, based on the GCP Terms of Service (which incorporate the (Google) Cloud Data Processing Addendum).

In view of the financial and organisational hurdles, Privacy Company concludes that most government organisations won't apply CSE in Google Meet.

Conclusion: ninth high risk mitigated

The DTIA concludes that the use of Google Meet leads to transfer of personal data to 7 third countries, and to the USA. However, use of Google Meet does not lead to high data protection risks for the users, provided that government organisations take a number of organisational and technical measures.

These necessary measures are:

1. Choose the EU as the data region. That means the Content Data are stored in the EU, such as recordings and transcripts of Meets in Drive. .
2. Implement a policy that Meet should not be used for meetings and conversations in which special categories of personal data are exchanged on, for example, illness, religion or sexual orientation. Alternatively, if the organisation wants to use Meet to exchange special categories of personal data, it must enforce the use of Client Side Encryption for such meetings, with keys generated and managed on its own key server.
3. Use another videoconferencing tool for meetings with guest users if the government organisation expects an exchange of sensitive or special categories of data and wants to use CSE. The alternative tool should extend the privacy protection to guest users.
4. Use the options of 'Sovereign Controls' once Google offers them. These controls also ensure that streaming data from 'live' Meets will be processed exclusively in the EU.
5. Use the options Access Approvals and Access Management to ensure that Google help desk staff outside the EU first needs to obtain separate consent before they can access stored data in Drive, such as Meet recordings and transcripts.
6. If a Google employee asks for permission to look into Content Data in a helpdesk call, first ask where the employee in question is located. The employee may be located in one of the 12 countries without adequate data protection levels where Google has helpdesks. These are: Australia, Brazil, Chile, El Salvador, Guatemala, Hong Kong, India, Malaysia, Mexico, the Philippines, Singapore and Taiwan. Do not consent to provide access to employees in these countries.
7. Turn on the Access Transparency service to view logs of data access by Google help desk employees and check these logs for irregularities.
8. Implement a policy to instruct administrators not to share other people's personal data with Google in an attachment to a helpdesk request. Google itself already shows a warning too, but this warning is limited to sensitive data such as passwords, BSNs and health data.
9. Use pseudonyms as account names for employees and admins who incur a high risk if their personal data are leaked. Take the high impact into account of a breach of system administrator credentials. If their account details are leaked, attackers can gain access to a lot of personal data.

Annex

1. Two examples of telemetry messages with Content Data

In these two messages resulting from the use of Google Meet, directly identifiable data are highlighted in yellow.[58]

SOURCE: export Diagnostic Information tool, payload exported as Meet.csv

2023-01-20T16:21:49.563865+01:00,45.137.101.242INbQvqvlz_HlSw, "Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:107.0) Gecko/20100101 Firefox/107.0,gzip(gfe)","{""common_event_logging"":""client_info { client_type: JS browser_info { locale: \"en-US" browser: \"Firefox" browser_version: \"107.0" } js_client_info { os_type: MAC os_version: \"10.15" device_type: DESKTOP locale: \"en-GB" build_label: \} } log_source: **HANGOUT_LOG_REQUEST** timestamp_millis: 1674228106535 client_timestamp_millis: 1674228106414 event_code: 3406"","""http_lang"":""en-US,en;q=0.5""","""meet_logging"":""log_entry { hangout_identifier { resource_id: \""boq_hlaneBECB648D\"" session_id: \"qN0Hp3tYUKMsgwoKAAiKAiADEA"" hangout_id: \"G1PcA-Tms_g5924PyB1uDxIMOAIoABgCEAgIigIgAwg"" participant_id: \""spaces/aK8yOVn2p70B/devices/5147c04f-a791-4bee-8af1-9f9f5e11fdb7\"" participant_log_id: \""boq_hlane_2SaK6SQ52pf\"" user_jid: \"floor@cnsede-test.nl" meeting_code: \"sra-dyib-eqs" meeting_space_id: \} system_info_log_entry { appVersion: \} impression_entry { type: 3406 additional_data { str_value: \} } hangout_client_info { property_name: \"""boq_hlane"" } } rtc_client { device: DESKTOP application: BOQ_HOTLANE platform: WEB host_environment: STANDALONE hub_configuration: MEET_CONFIGURATION media_participation_mode: MEDIA_PARTICIPATION_CALL_PARTICIPANT }""","""visual_elements"":""[]""","""request_context"":""""NULL""}""

2023-01-20T16:21:49.563684+01:00,45.137.101.242,INbQvqvlz_HlSw, "Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:107.0) Gecko/20100101 Firefox/107.0,gzip(gfe)","{""common_event_logging"":""client_info { client_type: JS browser_info { locale: \"en-US" browser: \"Firefox" browser_version: \"107.0" } js_client_info { os_type: MAC os_version: \"10.15" device_type: DESKTOP locale: \"en-GB" build_label: \} } log_source: **HANGOUT_LOG_REQUEST** timestamp_millis: 1674228100140 client_timestamp_millis: 1674228100019 event_code: 4764"","""http_lang"":""en-US,en;q=0.5""","""meet_logging"":""log_entry { hangout_identifier { resource_id: \{ "boq_hlaneBECB648D" participant_log_id: \""boq_hlane_2SaK6SQ52pf\"" user_jid: \"floor@cnsede-test.nl" meeting_code: \"sra-dyib-eqs" meeting_space_id: \} system_info_log_entry { appVersion: \} impression_entry { type: 4764 additional_data { str_value: \"Mic: FloorPixel Buds Pro ofsEf9xsW1cc3MpuBpbcqPCFn//OjDHP88JaR5u7zok=, Speaker: System default speaker device __synthetic_default_speaker_device__, MatchableDevice: \"" } } hangout_client_info { property_name: \"""boq_hlane"" } } rtc_client { device: DESKTOP application: BOQ_HOTLANE platform: WEB host_environment: STANDALONE hub_configuration: MEET_CONFIGURATION media_participation_mode: MEDIA_PARTICIPATION_CALL_PARTICIPANT }""","""visual_elements"":""[]""","""request_context"":""""NULL""}""

[58] Names of researcher intentionally left in.

2. Example of Spelling and grammar check

In this **long message (21 pages as printed out in this report)**, the Content Data collected as a result of the use of the *Spelling and grammar check* are highlighted in yellow (on the next page).

{
"common_event_logging": "client_info {
client_type: JS
browser_info {
locale: "en-US"
browser: "Firefox"
browser_version: "107.0"
}
js_client_info {
os_type: MAC
os_version: "10.15"
device_type: DESKTOP
locale: "en-GB"
}
}
log_source: SLIDES
timestamp_millis: 1674231951721
client_timestamp_millis: 1674231951622
impression_batch {
impressions {
entry_point: CONTEXT_MENU
sequence_number: 159
event_details {
docs_common {
window_size {
inner_width: 1625
inner_height: 1232
outer_width: 1625
outer_height: 1317
}
in_revision_history: false
impression_context: SKETCHY_CURRENT_PAGE

impression_context: SKETCHY_SHAPE
impression_context: SKETCHY_TEXT
action_data {
apply_spellcheck_suggestion_rank: 1
spelling_language: "la"
document_local: "en"
spelling_details {
context: "ididunt ut labore et dolore magna aliqua homework splelling"
suggestion: "spelling"
misspelling_start: 50
misspelling_end: 58
underlines_count: 0
suggestion_type: UNDEFINED_SUGGESTION_TYPE
suggestion_tag: SPELLING
affected_underlines_count: 1
underline_count_by_source_and_tag {
tag: SPELLING
underline_count: 0
affected_underline_count: 1
}
suggestion_model: UNDEFINED
misspelling_fingerprint {
context_simhash: 0
suggestion_hash: 0
}
ui_context: CONTEXT_MENU
}
}
view_mode: FULL_CHROME
has_edited: true
access_state {
is_commentable: true
is_editable: true
}
find_details {
doco_match_selected: false

}
device_pixel_ratio: 1.0
}
connection_details {
connection_status: ONLINE
}
ui_interaction {
pointer_event_type: MOUSE
}
companion_used_in_session: false
}
last_heartbeat_sequence_number: 1
client_timing_info {
elapsed_timing {
start_client_time_usec: 1674231944849000
end_client_time_usec: 1674231944898000
}
timing_type: ELAPSED
}
event_code: 121
start_sequence_number: 159
end_sequence_number: 163
}
impressions {
sequence_number: 126
event_details {
text_modification {
input_method: KEYBOARD
}
}
last_heartbeat_sequence_number: 1
high_frequency_details {
num_activity_components: 10
closing_trigger: UNLOAD
}
client_timing_info {

elapsed_timing {
start_client_time_usec: 1674231938011000
end_client_time_usec: 1674231951620000
}
timing_type: ELAPSED
}
event_code: 1313
start_sequence_number: 126
end_sequence_number: 164
}
impressions {
sequence_number: 118
event_details {
ui_interaction {
pointer_event_type: MOUSE
}
canvas_interaction {
un _buckets {
interaction {
count: 1
gesture_type: GESTURE_STATIONARY
}
}
}
}
last_heartbeat_sequence_number: 1
high_frequency_details {
num_activity_components: 1
closing_trigger: UNLOAD
}
client_timing_info {
elapsed_timing {
start_client_time_usec: 1674231935442000
end_client_time_usec: 1674231951620000
}
timing_type: ELAPSED

```
 }
 event_code: 29564
 start_sequence_number: 118
 end_sequence_number: 165
}
session_info {
 session_id: "CKnm2PrH1vwCFRSNqwcdC70PeQ"
 client_start_time_usec: 1674231928383000
 server_start_time_usec: 1674231927943983
 session_type: PUNCH_WEB
}
client_info {
 ui_locale: "en-GB"
 user_agent: "Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:107.0) Gecko/20100101 Firefox/107.0"
 document_id: "1QQI4oqwLdVx1vZYg6zaEh6_VoZCk1eN6UE84uKA67No"
 offline {
 is_cold_start: false
 is_opted_in: false
 }
 has_edited: true
 job set: PROD
 experiment {
 experiment_id: 5700019
 experiment_id: 5700036
 experiment_id: 5700057
 experiment_id: 5700103
 experiment_id: 5700114
 experiment_id: 5700133
 experiment_id: 5700333
 experiment_id: 5700884
 experiment_id: 5700893
 experiment_id: 5701034
 experiment_id: 5701641
 experiment_id: 5702392
 experiment_id: 5702538
```

experiment_id: 5702785

experiment_id: 5703182

experiment_id: 5703206

experiment_id: 5703307

experiment_id: 5703575

experiment_id: 5703839

experiment_id: 5704387

experiment_id: 5704572

experiment_id: 5704621

experiment_id: 5704883

experiment_id: 5705891

experiment_id: 5706270

experiment_id: 5706523

experiment_id: 5706669

experiment_id: 5706786

experiment_id: 5706999

experiment_id: 5707047

experiment_id: 5707204

experiment_id: 5707327

experiment_id: 5707445

experiment_id: 5707609

experiment_id: 5707695

experiment_id: 5707711

experiment_id: 5707820

experiment_id: 5708235

experiment_id: 5708365

experiment_id: 5708560

experiment_id: 5708886

experiment_id: 5709085

experiment_id: 5709201

experiment_id: 5709209

experiment_id: 5709476

experiment_id: 5709673

experiment_id: 5710189

experiment_id: 5710692

experiment_id: 5711230

experiment_id: 5711550

experiment_id: 5711669

experiment_id: 5712189

experiment_id: 5712489

experiment_id: 5712556

experiment_id: 5712635

experiment_id: 5712909

experiment_id: 5712913

experiment_id: 5713195

experiment_id: 5713554

experiment_id: 5713993

experiment_id: 5714310

experiment_id: 5715322

experiment_id: 5717909

experiment_id: 5719464

experiment_id: 5719484

experiment_id: 5722141

experiment_id: 5722201

experiment_id: 5722802

experiment_id: 5723989

experiment_id: 5724217

experiment_id: 5724437

experiment_id: 5726697

experiment_id: 5727259

experiment_id: 5728004

experiment_id: 5728967

experiment_id: 5730227

experiment_id: 5730287

experiment_id: 5731837

experiment_id: 5732343

experiment_id: 5733770

experiment_id: 5734614

experiment_id: 5735136

experiment_id: 5735254

experiment_id: 5735808

experiment_id: 5736413

experiment_id: 5737256

experiment_id: 5737802

experiment_id: 5739780

experiment_id: 5740188

experiment_id: 5740343

experiment_id: 5740816

experiment_id: 5741976

experiment_id: 5742726

experiment_id: 5743146

experiment_id: 5743789

experiment_id: 5744290

experiment_id: 5744350

experiment_id: 5745460

experiment_id: 5746726

experiment_id: 5746786

experiment_id: 5747218

experiment_id: 5747943

experiment_id: 5749257

experiment_id: 5750112

experiment_id: 5750878

experiment_id: 5750956

experiment_id: 5751159

experiment_id: 5752152

experiment_id: 5752676

experiment_id: 5753663

experiment_id: 5753683

experiment_id: 5754311

experiment_id: 5754830

experiment_id: 5755411

experiment_id: 5756697

experiment_id: 5757324

experiment_id: 5758499

experiment_id: 5758638

experiment_id: 5758676

experiment_id: 5759280

experiment_id: 5759564

experiment_id: 5760169

experiment_id: 5760329

experiment_id: 5760452

experiment_id: 5760472

experiment_id: 5762731

experiment_id: 5763275

experiment_id: 5763519

experiment_id: 5764067

experiment_id: 5764468

experiment_id: 5768934

experiment_id: 5770337

experiment_id: 5771105

experiment_id: 5777654

experiment_id: 5781024

experiment_id: 5781872

experiment_id: 5782840

experiment_id: 5783139

experiment_id: 13702623

experiment_id: 48962799

experiment_id: 48966183

experiment_id: 49323039

experiment_id: 49369486

experiment_id: 49372349

experiment_id: 49375243

experiment_id: 49378810

experiment_id: 49381183

experiment_id: 49398168

experiment_id: 49398610

experiment_id: 49421333

experiment_id: 49439039

experiment_id: 49441740

experiment_id: 49450117

experiment_id: 49452926

experiment_id: 49453755

experiment_id: 49472150

experiment_id: 49474197

experiment_id: 49487459

experiment_id: 49491666

experiment_id: 49498922

experiment_id: 49499250

experiment_id: 49499537

experiment_id: 49501765

experiment_id: 49507799

experiment_id: 49510589

experiment_id: 49512354

experiment_id: 49518511

experiment_id: 49611047

experiment_id: 49622852

experiment_id: 49624141

experiment_id: 49643657

experiment_id: 49644084

experiment_id: 49646210

experiment_id: 49648895

experiment_id: 49658503

experiment_id: 49700925

experiment_id: 49704032

experiment_id: 49756707

experiment_id: 49769406

experiment_id: 49779648

experiment_id: 49797018

experiment_id: 49816186

experiment_id: 49822870

experiment_id: 49837689

experiment_id: 49839720

experiment_id: 49842844

experiment_id: 49898306

experiment_id: 49923468

experiment_id: 49924695

experiment_id: 49943208

experiment_id: 49944043

experiment_id: 49953431

experiment_id: 49970140

```
      experiment_id: 49979358
      experiment_id: 50022295
      experiment_id: 50031689
      experiment_id: 50089551
      experiment_id: 50209856
 }
 access_level {
 can_write: true
 can_comment: true
 can_invite: true
 can_read: true
 is_owner: true
 }
 access_state {
 is_commentable: true
 is_editable: true
 }
}
impression_system {
 version: V6_CONCURRENT_IMPRESSIONS
}
session_invariants {
 app_invariants {
 docs_app_load {
 page_controller: SERVER
 page_visibility: VISIBLE
 model_source: SERVER
 network_state: ONLINE
 has_incremental_commands: false
 has_pending_changes: false
 initial_model_has_webfonts: true
 app_info_load: COLD
 app_info_forwarding: NONE
 initial_doc_size {
 sketchy_pages_count: 19
 sketchy_slides_count: 7
```

sketchy_masters_count: 1
sketchy_layouts_count: 11
unique_image_count: 0
total_image_count: 0
}
sketchy_prerender_enabled: true
is_server_created: true
has_undeliverable_pending_changes: false
start_load_time_usec: 1674231927867000
initial_fonts_have_non_standard_weight: false
document_model_version: 1
document_feature_version: 0
initial_model_has_non_standard_weight: false
non_latin_infrastructure_v1: NON_LATIN_INFRA_V1_ENABLED
first_slide_details {
shape_count: 4
textbox_count: 2
}
first_slide_not_requested: false
editor_mode: GDOCS_MODE
offline_invariants {
extension_installed: false
hosted_app_installed: false
local_storage_offline_opted_in: false
local_storage_offline_opted_out: false
extension_manifest_version: "2"
}
compass_routing_state: NO_LOCK_OWNER
domain_font_used_in_document: false
mobile_font_woff2_state: MOBILE_FONT_WOFF2_ENABLED
group_set_for_metrics: ABSENT
converted_document: false
initial_revision: 13
preferences_at_load_docs {
name: DOCS_DISPLAY_DENSITY
value_boolean: false

}
editor_session_id: "793af75b770d7b0a"
lowest_font_metadata_schema_version: 1
shard_name: SHARD102
is_document_shared: true
document_visibility_state: PRIVATE
document_acl_count: 2
is_loaded_by_requesting_creator: true
has_summary: false
embedded_file_total_count: 0
colour_scheme: LIGHT
is_slide_library_opened_on_initial_load: false
l2_gfe_type: L2_MANAGED_PRESENTATIONS
has_parent_frame: false
resource_load_details {
resource_category: CORE_JS
resource_load_source: FROM_CACHE
}
resource_load_details {
resource_category: APP_JS
resource_load_source: FROM_CACHE
}
}
docs_editor {
access_mode: EDIT
is_integrated: false
client_supported_model_version: 9
document_id: "1QQI4oqwLdVx1vZYg6zaEh6_VoZCk1eN6UE84uKA67No"
}
docos {
experiment_info {
experiment_id: 5700019
experiment_id: 5700036
experiment_id: 5700057
experiment_id: 5700103
experiment_id: 5700114

experiment_id: 5700133

experiment_id: 5700333

experiment_id: 5700884

experiment_id: 5700893

experiment_id: 5701034

experiment_id: 5701641

experiment_id: 5702392

experiment_id: 5702538

experiment_id: 5702785

experiment_id: 5703182

experiment_id: 5703206

experiment_id: 5703307

experiment_id: 5703575

experiment_id: 5703839

experiment_id: 5704387

experiment_id: 5704572

experiment_id: 5704621

experiment_id: 5704883

experiment_id: 5705891

experiment_id: 5706270

experiment_id: 5706523

experiment_id: 5706669

experiment_id: 5706786

experiment_id: 5706999

experiment_id: 5707047

experiment_id: 5707204

experiment_id: 5707327

experiment_id: 5707445

experiment_id: 5707609

experiment_id: 5707695

experiment_id: 5707711

experiment_id: 5707820

experiment_id: 5708235

experiment_id: 5708365

experiment_id: 5708560

experiment_id: 5708886

experiment_id: 5709085

experiment_id: 5709201

experiment_id: 5709209

experiment_id: 5709476

experiment_id: 5709673

experiment_id: 5710189

experiment_id: 5710692

experiment_id: 5711230

experiment_id: 5711550

experiment_id: 5711669

experiment_id: 5712189

experiment_id: 5712489

experiment_id: 5712556

experiment_id: 5712635

experiment_id: 5712909

experiment_id: 5712913

experiment_id: 5713195

experiment_id: 5713554

experiment_id: 5713993

experiment_id: 5714310

experiment_id: 5715322

experiment_id: 5717909

experiment_id: 5719464

experiment_id: 5719484

experiment_id: 5722141

experiment_id: 5722201

experiment_id: 5722802

experiment_id: 5723989

experiment_id: 5724217

experiment_id: 5724437

experiment_id: 5726697

experiment_id: 5727259

experiment_id: 5728004

experiment_id: 5728967

experiment_id: 5730227

experiment_id: 5730287

experiment_id: 5731837

experiment_id: 5732343

experiment_id: 5733770

experiment_id: 5734614

experiment_id: 5735136

experiment_id: 5735254

experiment_id: 5735808

experiment_id: 5736413

experiment_id: 5737256

experiment_id: 5737802

experiment_id: 5739780

experiment_id: 5740188

experiment_id: 5740343

experiment_id: 5740816

experiment_id: 5741976

experiment_id: 5742726

experiment_id: 5743146

experiment_id: 5743789

experiment_id: 5744290

experiment_id: 5744350

experiment_id: 5745460

experiment_id: 5746726

experiment_id: 5746786

experiment_id: 5747218

experiment_id: 5747943

experiment_id: 5749257

experiment_id: 5750112

experiment_id: 5750878

experiment_id: 5750956

experiment_id: 5751159

experiment_id: 5752152

experiment_id: 5752676

experiment_id: 5753663

experiment_id: 5753683

experiment_id: 5754311

experiment_id: 5754830

experiment_id: 5755411

experiment_id: 5756697

experiment_id: 5757324

experiment_id: 5758499

experiment_id: 5758638

experiment_id: 5758676

experiment_id: 5759280

experiment_id: 5759564

experiment_id: 5760169

experiment_id: 5760329

experiment_id: 5760452

experiment_id: 5760472

experiment_id: 5762731

experiment_id: 5763275

experiment_id: 5763519

experiment_id: 5764067

experiment_id: 5764468

experiment_id: 5768934

experiment_id: 5770337

experiment_id: 5771105

experiment_id: 5777654

experiment_id: 5781024

experiment_id: 5781872

experiment_id: 5782840

experiment_id: 5783139

experiment_id: 13702623

experiment_id: 48962799

experiment_id: 48966183

experiment_id: 49323039

experiment_id: 49369486

experiment_id: 49372349

experiment_id: 49375243

experiment_id: 49378810

experiment_id: 49381183

experiment_id: 49398168

experiment_id: 49398610

experiment_id: 49421333

experiment_id: 49439039

experiment_id: 49441740

experiment_id: 49450117

experiment_id: 49452926

experiment_id: 49453755

experiment_id: 49472150

experiment_id: 49474197

experiment_id: 49487459

experiment_id: 49491666

experiment_id: 49498922

experiment_id: 49499250

experiment_id: 49499537

experiment_id: 49501765

experiment_id: 49507799

experiment_id: 49510589

experiment_id: 49512354

experiment_id: 49518511

experiment_id: 49611047

experiment_id: 49622852

experiment_id: 49624141

experiment_id: 49643657

experiment_id: 49644084

experiment_id: 49646210

experiment_id: 49648895

experiment_id: 49658503

experiment_id: 49700925

experiment_id: 49704032

experiment_id: 49756707

experiment_id: 49769406

experiment_id: 49779648

experiment_id: 49797018

experiment_id: 49816186

experiment_id: 49822870

experiment_id: 49837689

experiment_id: 49839720

```
        experiment_id: 49842844
        experiment_id: 49898306
        experiment_id: 49923468
        experiment_id: 49924695
        experiment_id: 49943208
        experiment_id: 49944043
        experiment_id: 49953431
        experiment_id: 49970140
        experiment_id: 49979358
        experiment_id: 50022295
        experiment_id: 50031689
        experiment_id: 50089551
 experiment_id: 50209856
 }
 app_load_counts {
 comments: 0
 suggestions: 0
 assignments: 0
 }
 app_load_anchored_counts {
 comments: 0
 suggestions: 0
 assignments: 0
 }
 notification_level: ALL
 edit_notification_level: false
 }
}
build_info {
 rapid_candidate_label: "editors.presentations-frontend_20230110.02_p3"
}
os {
 os_type: OS_X
 os_version: "10.15"
}
job set: PROD
```

user_channel: RELEASE
navigation_timing {
 navigation_start_usec: 1674231927268000
 redirect_start_usec: 1674231927268000
 redirect_end_usec: 1674231927268000
 fetch_start_usec: 1674231927268000
 domain_lookup_start_usec: 1674231927268000
 domain_lookup_end_usec: 1674231927268000
 connect_start_usec: 1674231927268000
 connect_end_usec: 1674231927268000
 request_start_usec: 1674231927289000
 response_start_usec: 1674231927795000
 response_end_usec: 1674231927795000
 redirect_count: 0
 navigation_type: NAVIGATE
}
device {
 num_google_accounts: 1
 hardware_concurrency: 6
}
document_open_source {
 source {
 url_source {
 usp: "drive_web"
 is_workspaceized: false
 is_projector_redirection_on_failure_enabled: false
 has_chrome_os_url_hint: false
 }
 }
}
browser {
 is_browser_supported: true
 is_firefox_electrolysis: true
 is_touch_supported: false
 are_pointer_events_supported: true
 is_likely_spoofed_edge: false

}

display_invariants {

display_extended_status: DISPLAY_EXTENDED_STATUS_API_NOT_AVAILABLE

display_count_status: DISPLAY_COUNT_STATUS_API_NOT_AVAILABLE

} } }", "http_lang": "en-US,en;q=0.5"}"

3. Google improvements audit logs

Google has made the following commitment on audit logs:

"In response to our commitment to expand the availability of admin audit logs, Google identified and will launch new audit logs (and update some existing audit logs) ***across 19 Workspace Core Services*** *(including EDU) by the end of 2022. The following table describes those new (and updated) events triggering audit logs."*

This report excludes the Google Voice service.

Assignments [out of scope of this verification report]
1. Course created
2. Course deleted
3. User joined course
4. User removed from course
5. Course work published
6. Submission state changed

Calendar
1. Transfer event
2. Export Calendar (web)
3. Create / update / delete appointment schedule
4. Create / update / delete recurring event, as recurring
5. Print Calendar (web)
6. Print event (web)

Chat in Gmail
1. Room details updated
2. Room name updated
3. Message deleted
4. User left room
5. Reaction added
6. Reaction removed
7. User blocked
8. User unblocked
9. Room blocked
10. Room unblocked
11. History turned on
12. History turned o_
13. Unread timestamp updated
14. Custom status updated

Chrome Sync [out of scope of this verification report]
1. User changed encryption settings
2. User selected to clear data from https://chrome.google.com/sync
3. User came online with a new Chrome client
4. User opted in to Chrome sync
5. APP - (add/delete)

6. Autofill information (add/delete)
7. Credit card details (add/delete)
8. Bookmark (add/delete)
9. Chrome extension (add/delete)
10. Password (add/delete)
11. Reading list (add/delete)
12. Web app (add/delete)
13. Authorisation server for printers (add/delete)
14. Wallet metadata (add/delete)
15. Web Auth credentials (add/delete)
16. User requested to export data from Google Takeout
17. User reused their Google password
18. User used their Google password

Classroom

1. [Updated existing event] User joined course (includes previous course role info now, i.e. whether they were a student)
2. User invited to own course
3. New user owns course
4. Transferred ownership of course
5. Updated announcement
6. Set draft grade
7. Unset draft grade
8. Set grade
9. Unset grade
10. Created add-on attachment
11. Deleted add-on attachment
12. Updated add-on attachment
13. Updated add-on-attachment submission grade
14. Grade export for course work
15. Originality report created
16. Guardian summaries settings updated for course
17. Guardian invited for student
18. Guardian responded to invite
19. Guardian removed for student
20. Guardian updated email
21. [Updated existing event] Published course work (includes attachment types now)
22. [Updated existing event] Published announcement (includes attachment types now)
23. Grade export for submission
24. Default guardian summaries settings updated for teacher
25. Updated course work

Cloud search [out of scope of this verification report]

1. Search
2. Suggest
3. ListQuerySources

Contacts

1. Create a label
2. Rename a label
3. Delete a label
4. Create singular new contact
5. Create bulk new contacts
6. Delete a contact
7. Edit a contact
8. Merge contacts manually

9. Add to contacts
10. Print
11. Import
12. Export
13. Hide (Archive) a contact
14. Accept a merge and fix suggestion
15. Grant user delegate access
16. Remove user's delegate access
17. Revert contact list to previous date
18. Recover trashed contact
19. Permanently delete trashed contact
20. Undo a mutate action

Docs [part of DRIVE logs, with Sheets and Slides]

1. Email collaborators
2. Report abuse/copyright
3. Add Comment
4. Accept/Reject suggestions

Drive

1. Adding new caption from Drive
2. Downloading captions
3. Deleting the captions
4. Keep Forever option
5. Deleting an old version
6. Report abuse for google file
7. Request access for file and owner receives email
8. Email collaborators

Gmail

1. Blocked sender
2. Draft saved
3. Permanently deleted an email

Groups [out of scope of this verification report]

1. Change email subscription type
2. Join groups via mail command
3. Leave groups via mail command

Jamboard [out of scope of this verification report]

1. Request for edit access
2. Verify that user is able to Share Jam as PDF
3. Verify that user is able to Share this frame as an image

Meet

1. Accept/Decline a Knocking request
2. Invite a user via email
3. Ringing/Calling another Meet user
4. Dial out to a PSTN user
5. Present a tab/window/screen
6. Start/stop a recording
7. Start/stop a live streaming (private/public)
8. Create a question
9. Answer a question
10. Create a poll
11. Respond a poll
12. Create/Stop call transcript
13. Attach a whiteboarding

Profile data [out of scope of this verification report]

1. Update / Delete of the following pro□le □elds (if available):
2. Name

3. Birthday
4. About
5. Email
6. Phone
7. Gender
8. Website
9. Address
10. Location
11. Photo
12. Portrait Photo
13. Organisation
14. Nickname
15. IM (instant message)
16. Pronoun
17. Language
18. File As
19. Relation
20. External ID
21. Posix Account
22. Ssh Public Key

Sheets

1. Commentators comment insertion
2. Stop scheduled script

Sites [out of scope of this verification report]

1. Log an event when the user selects "Publish" on the 'Publish your site' modal.
2. Replace the url string before /p/ and the site will export

Slides [section DRIVE logs]

1. Email collaborators

Tasks

1. Task Creation
2. Task Completion
3. Task Uncompletion
4. Task Deletion
5. Task Undeletion
6. Task Assigned
7. Task Unassigned
8. Task Reassigned
9. Task title change
10. Task due date/time change
11. Task Modified (covers description change, starred, unstarred)
12. Task moved between task lists
13. Task list creation
14. Task list deletion
15. All completed tasks on a list deleted
16. Task list title change
17. Task list structure change
18. Recurring task created
19. Recurring schedule added to a task
20. Title changed for a recurring task
21. Recurring task modified
22. Recurring schedule deleted

4. Examples of new Workspace for Education audit logs

Figure 43: User log events

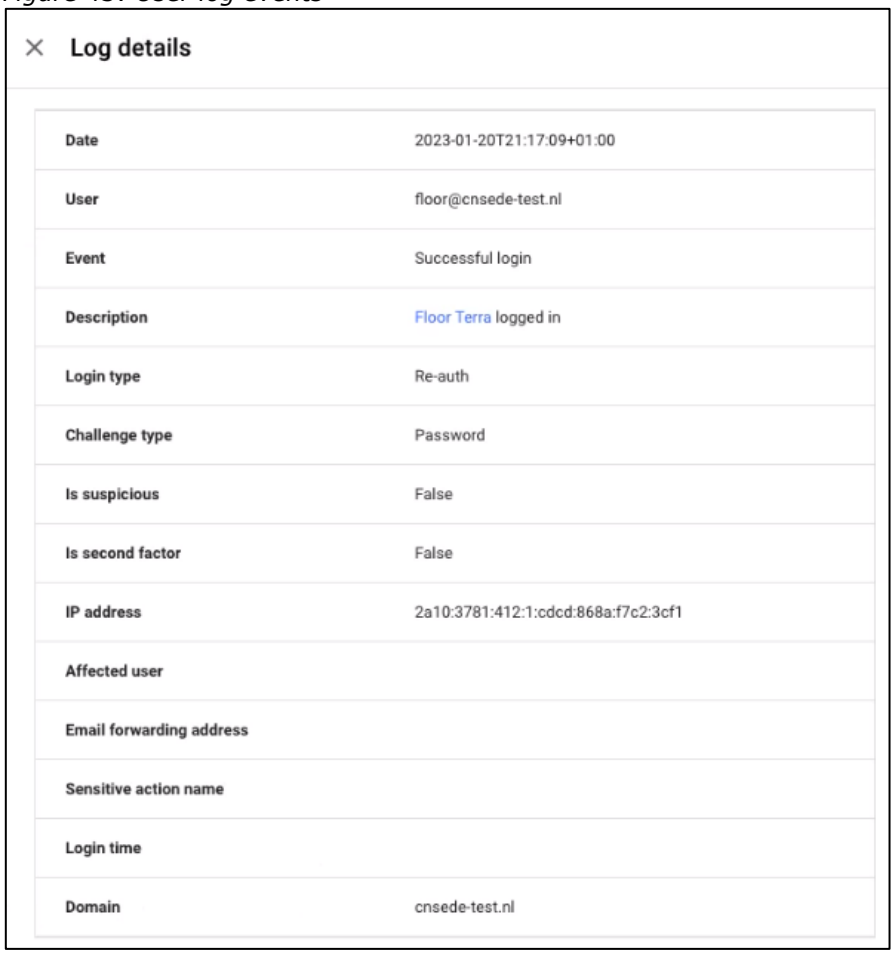
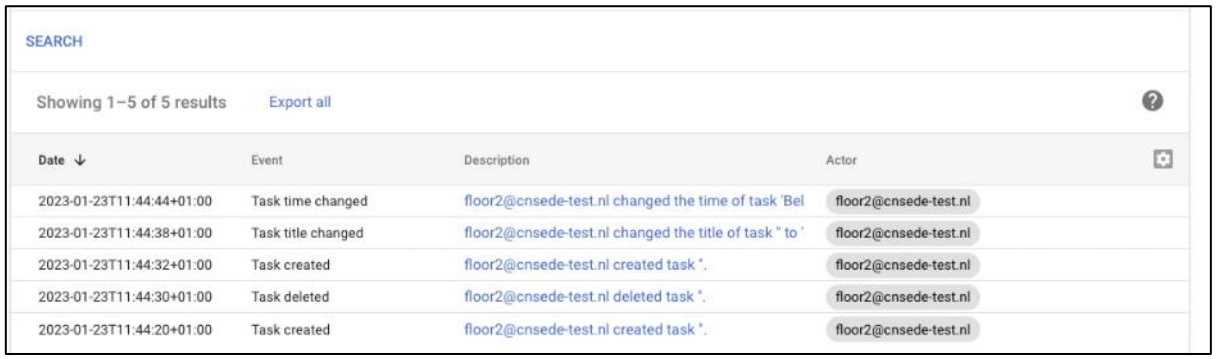
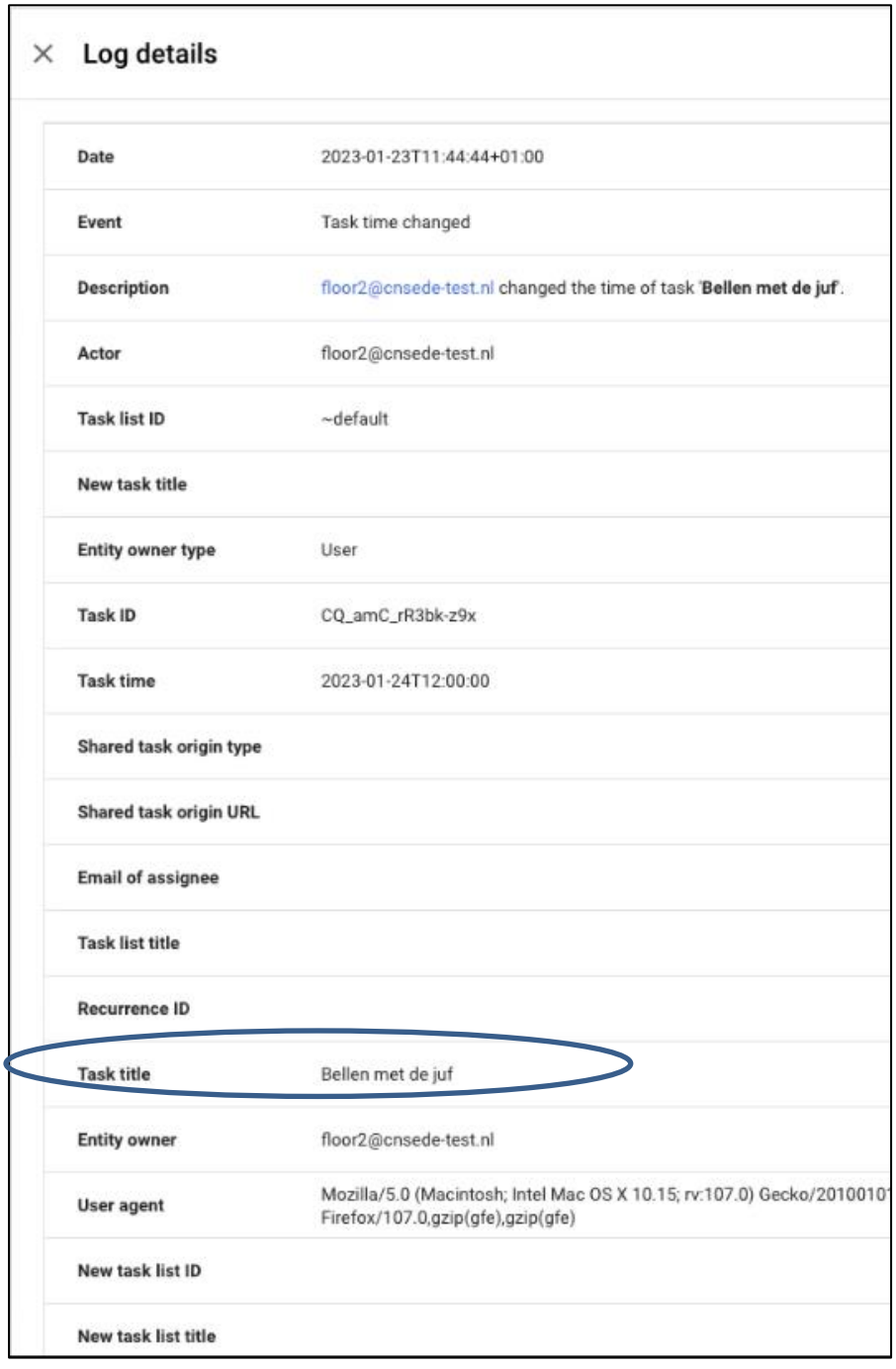


Figure 44: Two screenshots of Task log events: overview actions and details of 1 action





Log details

Date	2023-01-23T11:44:44+01:00
Event	Task time changed
Description	floor2@cnsede-test.nl changed the time of task '**Bellen met de juf**'.
Actor	floor2@cnsede-test.nl
Task list ID	~default
New task title	
Entity owner type	User
Task ID	CQ_amC_rR3bk-z9x
Task time	2023-01-24T12:00:00
Shared task origin type	
Shared task origin URL	
Email of assignee	
Task list title	
Recurrence ID	
Task title	Bellen met de juf
Entity owner	floor2@cnsede-test.nl
User agent	Mozilla/5.0 (Macintosh; Intel Mac OS X 10.15; rv:107.0) Gecko/2010010 Firefox/107.0,gzip(gfe),gzip(gfe)
New task list ID	
New task list title	

Figure 45: Screenshot of Takeout log

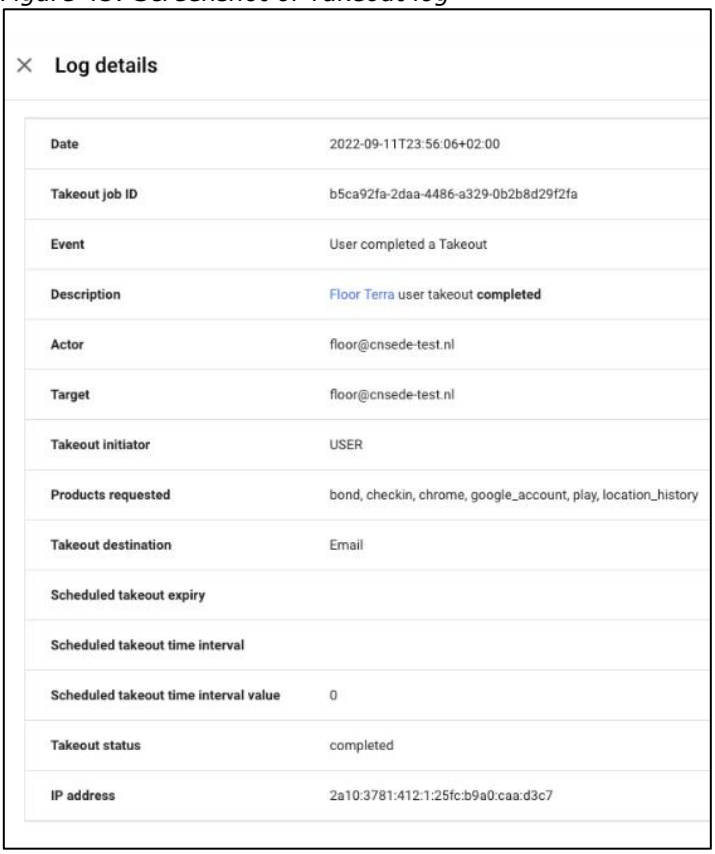


Figure 46: Screenshot of Oauth approval login on Chrome

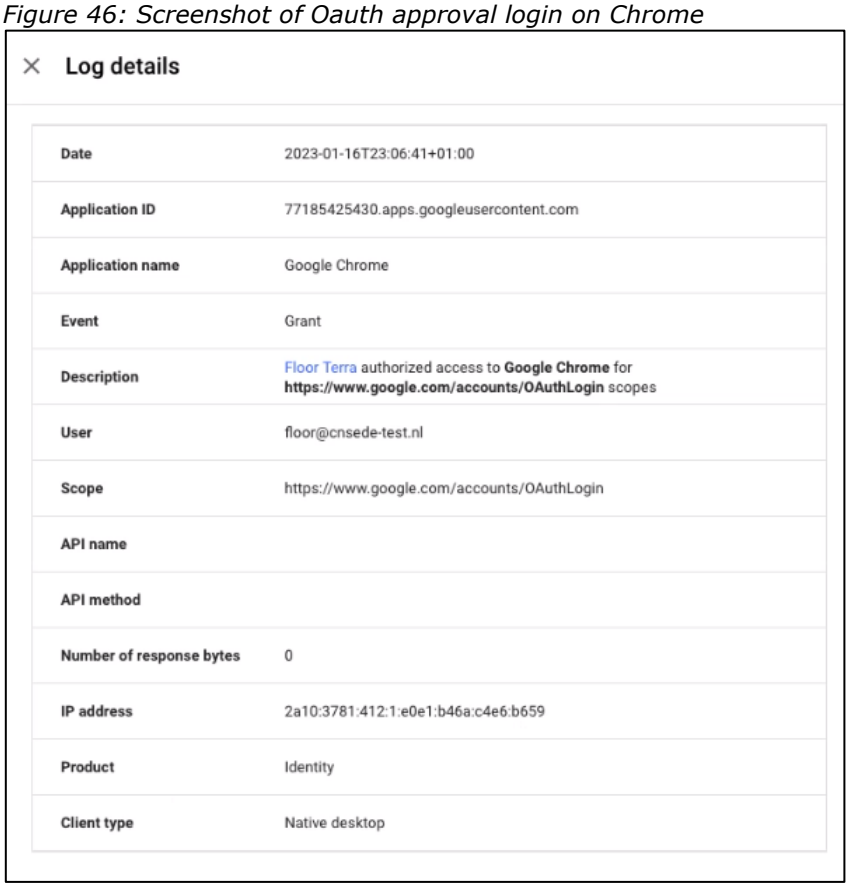
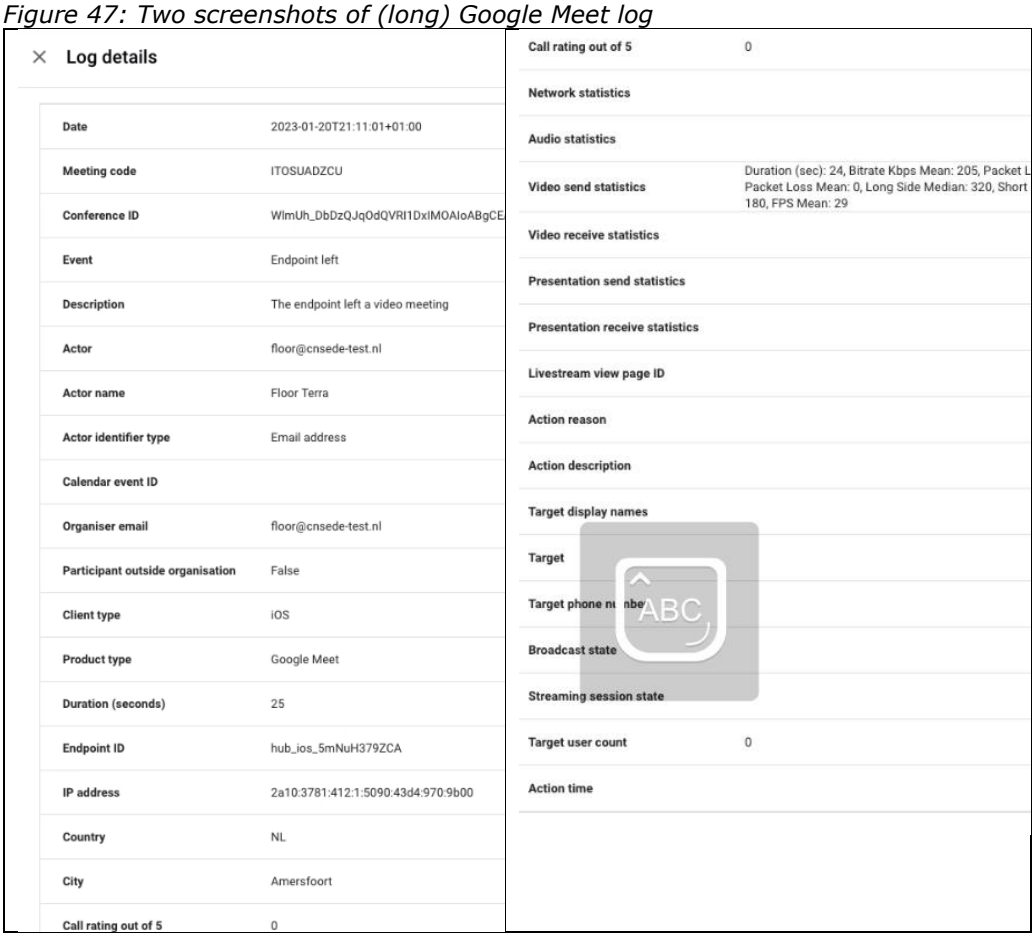


Figure 47: Two screenshots of (long) Google Meet log

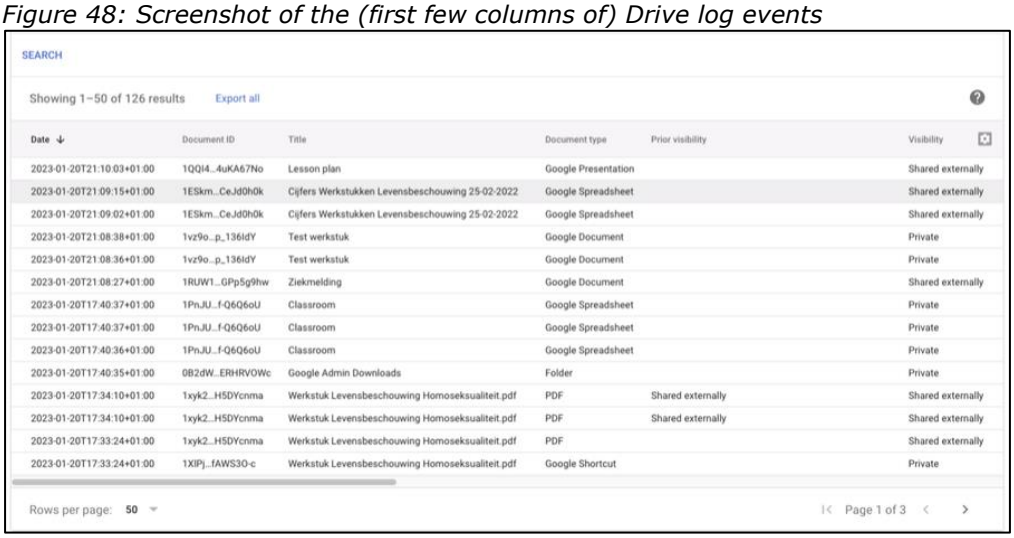


Log details

Date	2023-01-20T21:11:01+01:00
Meeting code	ITOSUADZCU
Conference ID	WlmUh_DbDzQJqOdQVRI1DxIMOAIoABgCE
Event	Endpoint left
Description	The endpoint left a video meeting
Actor	floor@cnsede-test.nl
Actor name	Floor Terra
Actor identifier type	Email address
Calendar event ID	
Organiser email	floor@cnsede-test.nl
Participant outside organisation	False
Client type	iOS
Product type	Google Meet
Duration (seconds)	25
Endpoint ID	hub_ios_5mNuH379ZCA
IP address	2a10:3781:412:1:5090:43d4:970:9b00
Country	NL
City	Amersfoort
Call rating out of 5	0

Call rating out of 5	0
Network statistics	
Audio statistics	
Video send statistics	Duration (sec): 24, Bitrate Kbps Mean: 205, Packet L Packet Loss Mean: 0, Long Side Median: 320, Short 180, FPS Mean: 29
Video receive statistics	
Presentation send statistics	
Presentation receive statistics	
Livestream view page ID	
Action reason	
Action description	
Target display names	
Target	
Target phone number	
Broadcast state	
Streaming session state	
Target user count	0
Action time	

Figure 48: Screenshot of the (first few columns of) Drive log events



SEARCH

Showing 1–50 of 126 results Export all

Date	Document ID	Title	Document type	Prior visibility	Visibility
2023-01-20T21:10:03+01:00	1QQI4...4uKA67No	Lesson plan	Google Presentation		Shared externally
2023-01-20T21:09:15+01:00	1ESkm...CeJd0h0k	Cijfers Werkstukken Levensbeschouwing 25-02-2022	Google Spreadsheet		Shared externally
2023-01-20T21:09:02+01:00	1ESkm...CeJd0h0k	Cijfers Werkstukken Levensbeschouwing 25-02-2022	Google Spreadsheet		Shared externally
2023-01-20T21:08:38+01:00	1vz9o...p_136IdY	Test werkstuk	Google Document		Private
2023-01-20T21:08:36+01:00	1vz9o...p_136IdY	Test werkstuk	Google Document		Private
2023-01-20T21:08:27+01:00	1RUW1...GPp5g9hw	Ziekmelding	Google Document		Shared externally
2023-01-20T17:40:37+01:00	1PnJU...f-Q6Q6oU	Classroom	Google Spreadsheet		Private
2023-01-20T17:40:37+01:00	1PnJU...f-Q6Q6oU	Classroom	Google Spreadsheet		Private
2023-01-20T17:40:36+01:00	1PnJU...f-Q6Q6oU	Classroom	Google Spreadsheet		Private
2023-01-20T17:40:35+01:00	0B2dW...ERHRV0Wc	Google Admin Downloads	Folder		Private
2023-01-20T17:34:10+01:00	1xyk2...H5DYcnma	Werkstuk Levensbeschouwing Homoseksualiteit.pdf	PDF	Shared externally	Shared externally
2023-01-20T17:34:10+01:00	1xyk2...H5DYcnma	Werkstuk Levensbeschouwing Homoseksualiteit.pdf	PDF	Shared externally	Shared externally
2023-01-20T17:33:24+01:00	1xyk2...H5DYcnma	Werkstuk Levensbeschouwing Homoseksualiteit.pdf	PDF		Shared externally
2023-01-20T17:33:24+01:00	1XIPj...fAWS3O-c	Werkstuk Levensbeschouwing Homoseksualiteit.pdf	Google Shortcut		Private

Rows per page: 50 Page 1 of 3

Table 4: Overview contents of Drive log: 39 types of events

Title	Document type	Prior visibility
Visibility	Event	Description
Actor	Owner	Target
IP address	Old value	New value
Recipient doc.	Domain	Label title
Label field display name	Old value IDs	New value IDs
Audience	Old publish visibility value	New publish visibility value
Billable	Visitor	Copy type
Requested access role	Video caption name	Revision ID
Revision create timestamp	Execution ID	Data connection ID
Execution trigger	Delegating principal	Query type
Script trigger source app	Script trigger type	Script container app
Script container ID	Script trigger ID	Recipients

Figure 49: Contact details log

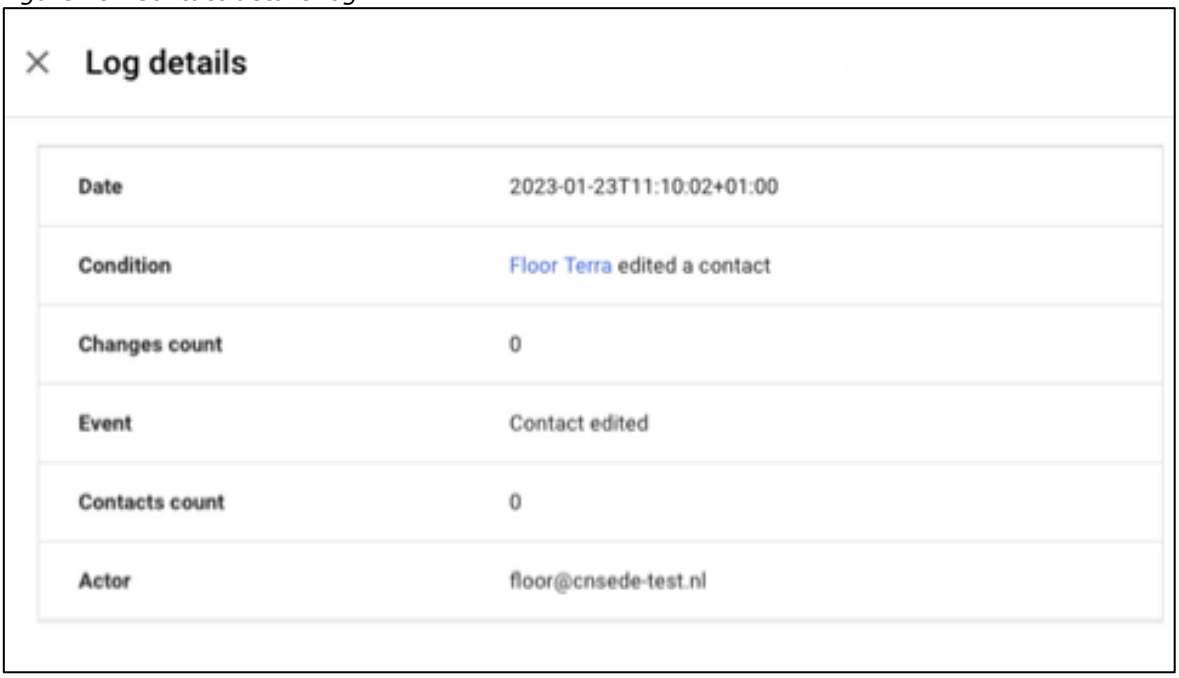
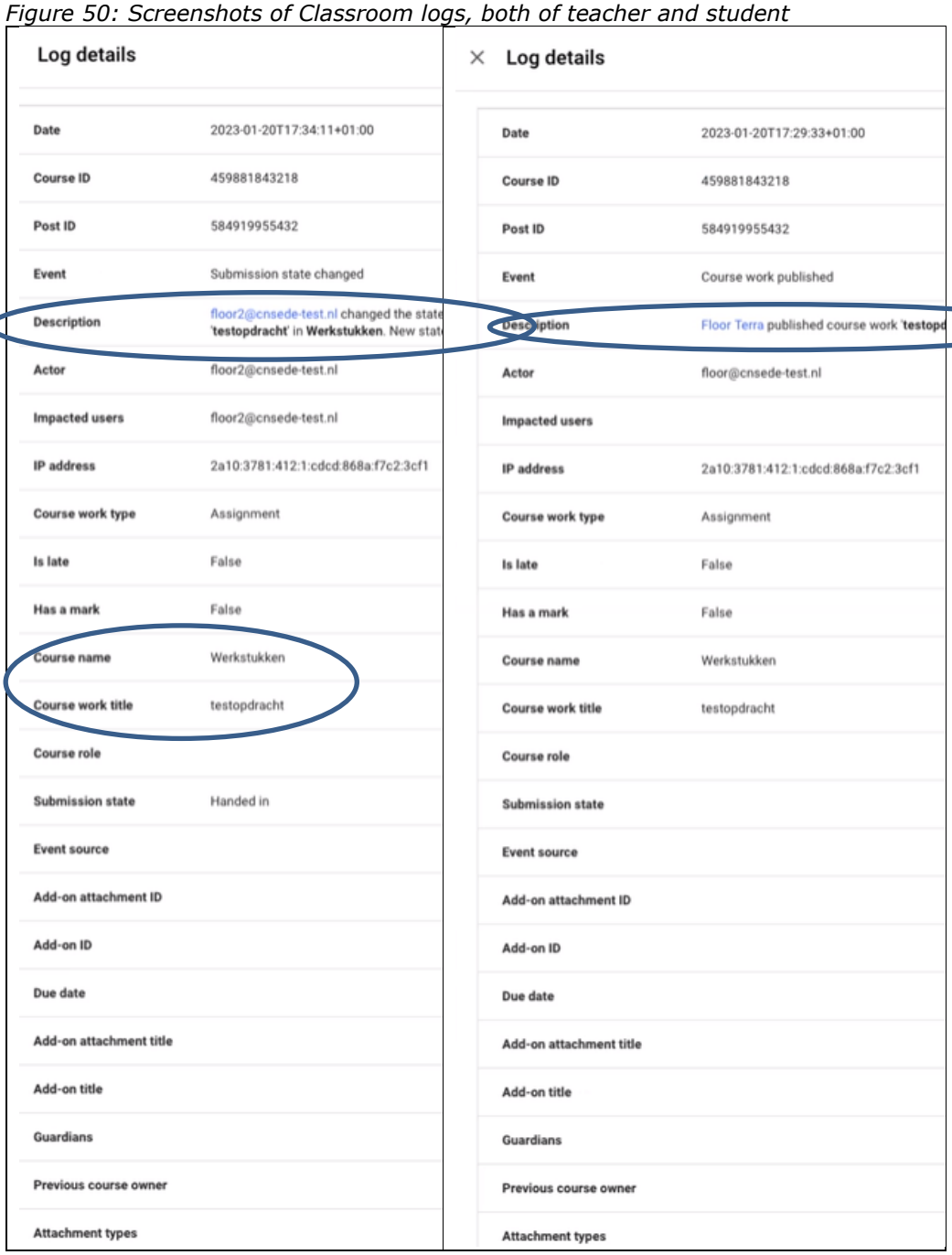


Figure 50: Screenshots of Classroom logs, both of teacher and student



Log details

Date	2023-01-20T17:34:11+01:00
Course ID	459881843218
Post ID	584919955432
Event	Submission state changed
Description	floor2@cnsede-test.nl changed the state 'testopdracht' in Werkstukken. New stat
Actor	floor2@cnsede-test.nl
Impacted users	floor2@cnsede-test.nl
IP address	2a10:3781:412:1:cdcd:868a:f7c2:3cf1
Course work type	Assignment
Is late	False
Has a mark	False
Course name	Werkstukken
Course work title	testopdracht
Course role	
Submission state	Handed in
Event source	
Add-on attachment ID	
Add-on ID	
Due date	
Add-on attachment title	
Add-on title	
Guardians	
Previous course owner	
Attachment types	

Log details

Date	2023-01-20T17:29:33+01:00
Course ID	459881843218
Post ID	584919955432
Event	Course work published
Description	Floor Terra published course work 'testopd
Actor	floor@cnsede-test.nl
Impacted users	
IP address	2a10:3781:412:1:cdcd:868a:f7c2:3cf1
Course work type	Assignment
Is late	False
Has a mark	False
Course name	Werkstukken
Course work title	testopdracht
Course role	
Submission state	
Event source	
Add-on attachment ID	
Add-on ID	
Due date	
Add-on attachment title	
Add-on title	
Guardians	
Previous course owner	
Attachment types	

Figure 51: Screenshot admin log events

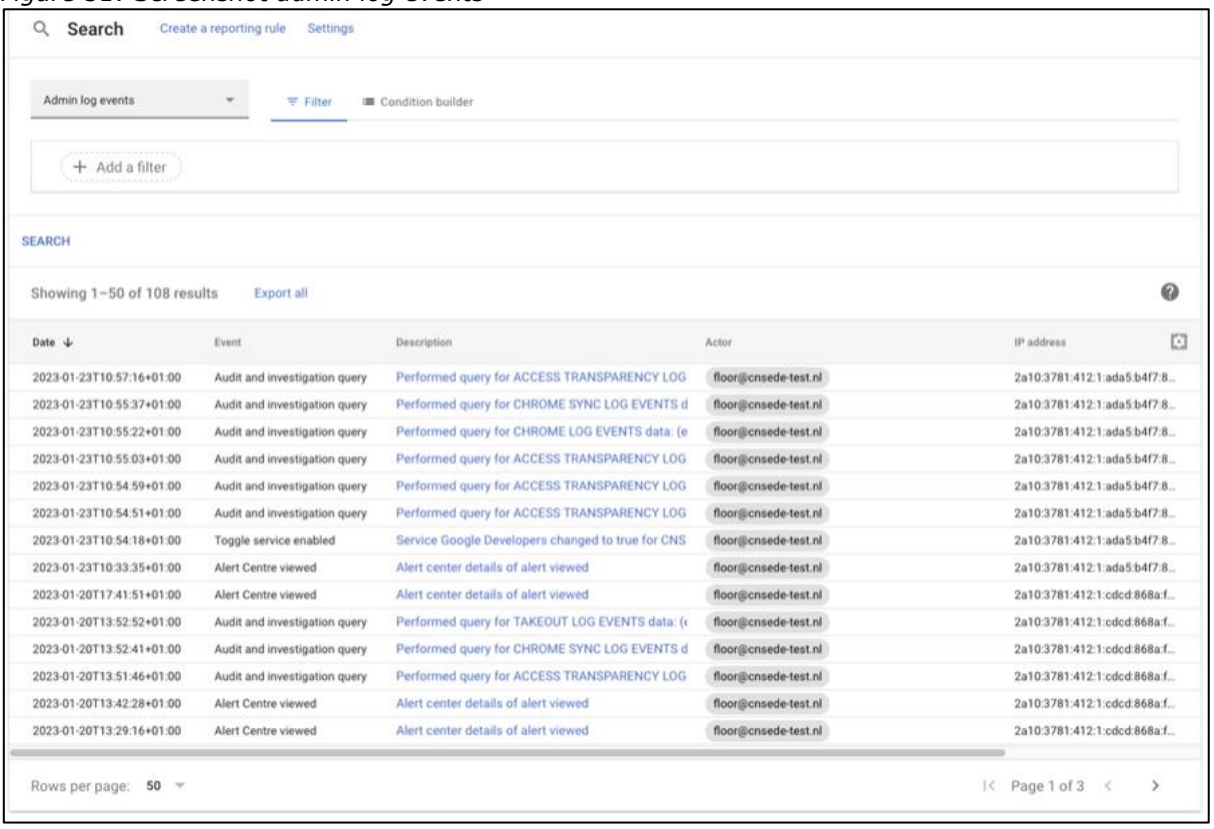
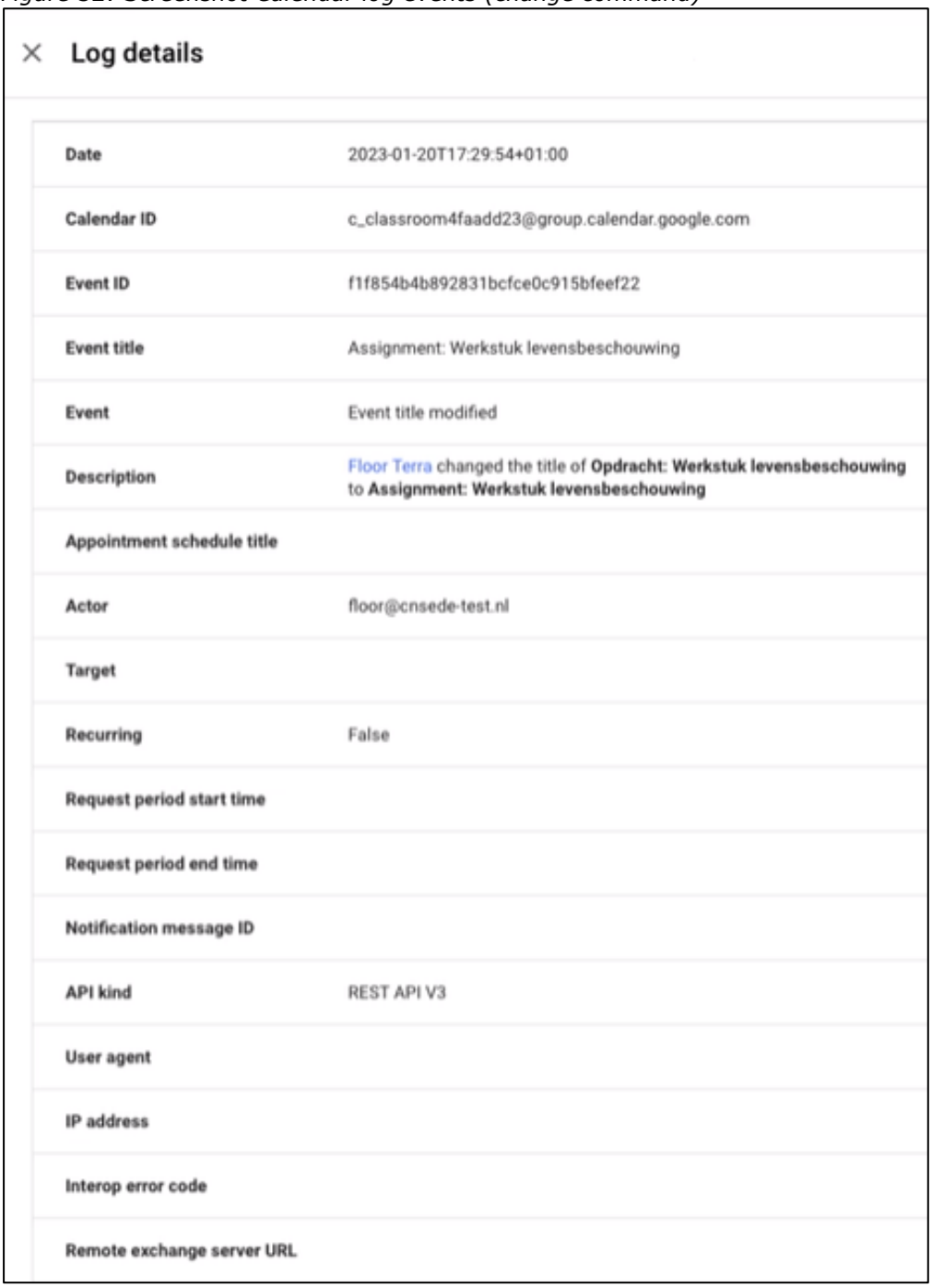


Figure 52: Screenshot Calendar log events (change command)



Log details

Date	2023-01-20T17:29:54+01:00
Calendar ID	c_classroom4faadd23@group.calendar.google.com
Event ID	f1f854b4b892831bcfce0c915bfeef22
Event title	Assignment: Werkstuk levensbeschouwing
Event	Event title modified
Description	Floor Terra changed the title of **Opdracht: Werkstuk levensbeschouwing** to **Assignment: Werkstuk levensbeschouwing**
Appointment schedule title	
Actor	floor@cnsede-test.nl
Target	
Recurring	False
Request period start time	
Request period end time	
Notification message ID	
API kind	REST API V3
User agent	
IP address	
Interop error code	
Remote exchange server URL	

Figure 53: Screenshots of Chrome Sync log events, overview and details,