The Hidden Costs of Digital Health Services: Research Annex

Methodology

CIS examined the network activity of several mobile and web applications during their regular use.

For this analysis, the apps and websites that were chosen are freely available and could be used and accessed with only an email address. For applications that required a phone number at a later stage (example, when an order is placed), the analysis is limited to the part of the app that does not require login with a phone number to comply with local laws. For this reason, most of the analysis was conducted on medical and health related websites and applications.

For web applications, the process of examining network activity is fairly straightforward: the requests and responses made over the Hypertext Transfer Protocol (HTTP) protocol while loading and navigating a website are made readily available by HTTP clients (such as web browsers like Chrome and Firefox).

For mobile applications, where HTTP clients are embedded in applications that are under the control of the application provider and not directly accessible, this process is slightly more involved. For this, CIS used Privacy International's [data interception environment](), which provides a preconfigured setup to conduct such analysis.

Once the interception of network activity was set up, CIS analysed each network interaction of the application individually, documenting the data being sent to entities that are classified as known trackers. CIS relied on Firefox's Tracking Protection functionality (powered by [disconnect.me]()) to categorise entities as trackers for web applications, and used [εxodus]() for mobile applications.

Limitations
The methodology has the following limitations:

- **"Server to server" data transfers are not covered**: This methodology can only detect a subset of the data potentially shared with and between advertisers – data directly sent out from the user's device by SDKs (software development kits) and tracking pixels embedded in the app or website. A [report]() by The Markup suggests that following a crackdown on such data sharing by app stores, apps have moved to sharing data "behind the scenes" directly between web servers rather than from the user's device.

- **Data obfuscation**: Some of the HTTP requests to known trackers were either encoded or encrypted in a format we were unable to decipher. This obfuscated text could potentially contain private information that this analysis could not detect.
- **Niche functionality** on apps and websites that end-users do not directly interact with is excluded from the analysis.

Findings

1. Apollo Clinic

Apollo Clinic is an Indian private healthcare provider for consultation, diagnostics and health checks.

1.1 Name and version of the App

Website: https://www.apolloclinic.com
Date of analysis: January 2023

1.2 Trackers

(Identified by Firefox)

https://www.googleadservices.com	https://connect.facebook.net
https://googleads.g.doubleclick.net	https://www.clarity.ms
https://www.google-analytics.com	https://snap.licdn.com
https://stats.g.doubleclick.net	https://px.ads.linkedin.com
https://h.clarity.ms	https://www.facebook.com
https://www.linkedin.com	https://c.clarity.ms

1.3 Permissions requested

- Location

1.4 Data collection consent banner

No consent banner is displayed.

There is a privacy policy[1], but most pages (including the home page) do not link to it. The "Health Check Packages" page has a link to the policy.

1.5 Main domain to where the data is sent

- https://www.apolloclinic.com

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[1] https://www.apolloclinic.com/health-check-packages/privacy-policy-2/

1.6 Domains to which advertising ID is sent.
N/A

1.7 Unexpected data sharing
*Feature: **Health Check Packages***

The Health Check Packages page allows users to purchase health checkups. Packages are available for specific demographics (such as an over-40 package) and specific conditions (diabetes, heart conditions, etc.)

The page URL, which includes the **name of the health check** being viewed by a user is shared with the following third-parties:
- px.ads.linkedin.com
- google-analytics.com
- facebook.com

A **textual description** of the health check being viewed is shared with the following third-parties:
- google-analytics.com
- facebook.com

Additional **sale details**, such as the price, availability, currency, seller name and promotional image of the health check are sent to the following entities:
- facebook.com

On the checkout page, where the health check package is purchased, the page URL is shared with the following entities. This allows them to **infer which health check was purchased**:

- px.ads.linkedin.com
- google-analytics.com
- facebook.com

https://**px.ads.linkedin.com**/collect?v=2&fmt=js&pid=3406884&time=16
74630917557&url=https%3A%2F%2Fwww.apolloclinic.com%2Fhealth-check-
packages%2Fproduct%2F**health-at-home-diabetic-screen-basic**%2F

https://www.**google-
analytics.com**/j/collect?v=1&_v=j99&a=1981637408&t=pageview&_s=1&dl=
https://www.apolloclinic.com/health-check-packages/product/health-
at-home-diabetic-screen-basic/&ul=en-us&de=UTF-8&dt=**Health At Home
Diabetic Screen Basic - Apollo Clinic**&sd=30-
bit&sr=1680x1050&vp=1351x1300&je=0&_u=QACAAEABAAAAACAAI~&jid=&gjid=
&cid=1323945317.1672656942&tid=UA-38278756-
4&_gid=1719584818.1674628314&_slc=1&gtm=2wg1n0585XMHK&z=1553855431

https://www.**facebook.com**/tr/?id=688029259303878&ev=PageView&dl=htt
ps://www.apolloclinic.com/health-check-packages/product/**health-at-
home-diabetic-screen-basic**/&rl=https://www.apolloclinic.com/health-
check-
packages/&if=false&ts=1674630917740&sw=1680&sh=1050&v=2.9.94&r=stab
le&a=tmSimo-GTM-
WebTemplate&ec=0&o=30&fbp=fb.1.1672656944177.1381255959&it=16746309
17512&coo=false&tm=1&rqm=GET

Request body for a request to **facebook.com** (irrelevant parts of
the request body omitted for brevity):

--------------------------*9010187987562367742900778869*
Content-Disposition: form-data; name="cd[JSON-LD]"

[{"@context":"https://schema.org/","@type":"Product","@id":"https://www.apolloclinic
*.com/health-check-packages/product/**health-at-home-diabetic-screen-**
basic**/","name":"**Health At Home Diabetic Screen
***Basic**","image":"https://www.apolloclinic.com/health-check-packages/wp-*
*content/uploads/**diabetic_screen.jpg**","description":"**Recommended To:Primary screening***
for
***Diabetes**","sku":"","offers":[{"@type":"Offer",**"price":"1080"**,"priceSpecification":{"*
price":"1080","priceCurrency":"INR","valueAddedTaxIncluded":"false"},"priceCurrency"

:"INR","availability":"https://schema.org/InStock","url":"https://www.apolloclinic.c
om/health-check-packages/product/health-at-home-diabetic-screen-
basic/","seller":{"@type":"Organization","name":"Apollo
Clinic","url":"https://www.apolloclinic.com/health-check-packages"}}]}]
----------------------------9010187987562367742900778869
Content-Disposition: form-data; name="sw"

---

https://www.**google-
analytics.com**/j/collect?v=1&_v=j99&a=382459728&t=pageview&_s=1&dl=h
ttps%3A%2F%2Fwww.apolloclinic.com%2F**health-check-
packages%2Fcheckout**%2F&ul=en-us&de=UTF-
8&dt=**Checkout**%20-%20Apollo%20Clinic&sd=30-
bit&sr=1680x1050&vp=1351x1878&je=0&_u=QACAAEABAAAAACAAI~&jid=453920
764&gjid=1811208958&cid=1323945317.1672656942&tid=UA-38278756-
4&_gid=1719584818.1674628314&_r=1&_slc=1&gtm=2wg1n0585XMHK&z=965572
666

---

https://**px.ads.linkedin.com**/collect?v=2&fmt=js&pid=3406884&time=16
74631913032&url=https://www.apolloclinic.com/health-check-
packages/**checkout**/

---

https://www.**facebook.com**/tr/?id=688029259303878&ev=PageView&dl=htt
ps://www.apolloclinic.com/health-check-
packages/**checkout**/&rl=https://www.apolloclinic.com/health-check-
packages/cart/&if=false&ts=1674631913460&sw=1680&sh=1050&v=2.9.94&r
=stable&a=tmSimo-GTM-
WebTemplate&ec=0&o=30&fbp=fb.1.1672656944177.1381255959&it=167463191
2964&coo=false&tm=1&rqm=GET

*Feature: **Find a Symptom***

The Find a Symptom page shows users a list of symptoms along with their descriptions.

When a symptom is chosen, it shows a detailed description of the symptom and, in some cases, a list of doctors who can treat the condition.

The page URL, which includes the **name of the selected symptom** is shared with following entities:
- googleads.g.doubleclick.net
- google.com/pagead
- google-analytics.com
- px.ads.linkedin.com
- facebook.com

A **short textual description of the selected symptom** is shared with the following entities:
- googleads.g.doubleclick.net
- google.com/pagead
- google-analytics.com
- facebook.com

A **long textual description related to the symptom** are shared with the following entities:

- facebook.com

https://**googleads.g.doubleclick.net**/pagead/viewthroughconversion/8
77214939/?random=1674640400968&cv=9&fst=1674640400968&num=1&guid=ON
&resp=GooglemKTybQhCsO&eid=375603260&u_h=1050&u_w=1680&u_ah=1025&u_
aw=1680&u_cd=30&u_his=4&u_tz=330&u_java=false&u_nplug=5&u_nmime=2&s
endb=1&ig=1&frm=0&url=https://www.apolloclinic.com/for-
patients/**find-a-symptom/chest-
pain**&ref=https://www.apolloclinic.com/for-patients/find-a-
symptom&tiba=**Chest pain: Causes, Symptoms,
Treatment**&hn=www.googleadservices.com&rfmt=3&fmt=4

https://www.**google-
analytics.com**/j/collect?v=1&_v=j99&a=380679616&t=pageview&_s=1&dl=h
ttps://www.apolloclinic.com/for-patients/**find-a-symptom/chest-
pain**&ul=en-us&de=UTF-8&dt=**Chest pain: Causes, Symptoms,
Treatment**&sd=30-
bit&sr=1680x1050&vp=1351x543&je=0&_u=QACAAEABAAAAACAAI~&jid=&gjid=&
cid=589362725.1674639997&tid=UA-38278756-
4&_gid=205296648.1674640094&_slc=1&gtm=2wg1n0585XMHK&z=1871996380

https://www.**google.com/pagead**/1p-user-
list/877214939/?random=1674640400968&random=3941554105&cv=9&fst=167
4637200000&num=1&guid=ON&eid=375603260&u_h=1050&u_w=1680&u_ah=1025&
u_aw=1680&u_cd=30&u_his=4&u_tz=330&u_java=false&u_nplug=5&u_nmime=2
&sendb=1&frm=0&url=https://www.apolloclinic.com/for-patients/**find-
a-symptom/chest-pain**&ref=https://www.apolloclinic.com/for-
patients/find-a-symptom&tiba=**Chest pain: Causes, Symptoms,
Treatment**&fmt=3&is_vtc=1&resp=GooglemKTybQhCsO&rmt_tld=0&ipr=y

https://**px.ads.linkedin.com**/collect?v=2&fmt=js&pid=3406884&time=16
74640402277&url=https://www.apolloclinic.com/for-patients/**find-a-
symptom/chest-pain**

Request body for a request to **facebook.com** (irrelevant parts of
the request body omitted for brevity):

https://www.apolloclinic.com/for-patients/**find-a-symptom/chest-pain**
----------------------------14455803262270118421166835530

```
Content-Disposition: form-data; name="rl"

{"title":"Chest pain: Causes, Symptoms,
Treatment","meta:keywords":"Chest pain ","meta:description":"Chest
pain can either be a major issue or can be solved by few therapies.
Visit the nearest Apollo Clinic before negleting even the lightest
chest pain as it can lead to major problems in future."}
----------------------------144558032622701184211668835530
Content-Disposition: form-data; name="cd[OpenGraph]"

[{"dimensions":{"h":38,"w":1160},"properties":{},"subscopes":[{"dim
ensions":{"h":20,"w":38},"properties":{"item":"https://www.apollocl
inic.com/","name":"Home","position":"1"},"subscopes":[],"type":"htt
p://schema.org/ListItem"},{"dimensions":{"h":20,"w":92},"properties
":{"item":"https://www.apolloclinic.com/for-patients","name":"For
Patients","position":"1"},"subscopes":[],"type":"http://schema.org/
ListItem"},{"dimensions":{"h":20,"w":120},"properties":{"item":"htt
ps://www.apolloclinic.com/for-patients/find-a-symptom","name":"Find
A
Symptom","position":"1"},"subscopes":[],"type":"http://schema.org/L
istItem"},{"dimensions":{"h":20,"w":84},"properties":{"name":"Chest
Pain","position":"1"},"subscopes":[],"type":"https://schema.org/Lis
tItem"}],"type":"http://schema.org/BreadcrumbList"}]
----------------------------144558032622701184211668835530
Content-Disposition: form-data; name="cd[JSON-LD]"
```

*Feature: **Find a Doctor***

The Find a Doctor page allows the user to search for a doctor by name, location and speciality.

The page URL, which includes the **name of the doctor selected**, the **doctor's speciality** and the **city the doctor serves** is shared with the following entities:

- googleads.g.doubleclick.net
- google.com/pagead
- google-analytics.com
- px.ads.linkedin.com
- facebook.com

```
 https://googleads.g.doubleclick.net/pagead/viewthroughconversion/8
77214939/?random=1674641549862&cv=9&fst=1674641549862&num=1&guid=ON
&resp=GooglemKTybQhCsO&eid=375603260&u_h=1050&u_w=1680&u_ah=1025&u_
aw=1680&u_cd=30&u_his=4&u_tz=330&u_java=false&u_nplug=5&u_nmime=2&s
endb=1&ig=1&frm=0&url=https://www.apolloclinic.com/find-a-
doctor/best-internal-medicine-in-port-blair-andaman-and-nicobar/dr-
bl-avinash&ref=https://www.apolloclinic.com/for-patients/find-a-
doctor&tiba=Dr. Bl Avinash Best Internal Medicine in Port Blair,
Port Blair&hn=www.googleadservices.com&rfmt=3&fmt=4
```

```
 https://www.google-
analytics.com/j/collect?v=1&_v=j99&a=1984917860&t=pageview&_s=1&dl=
https://www.apolloclinic.com/find-a-doctor/best-internal-medicine-
in-port-blair-andaman-and-nicobar/dr-bl-avinash&ul=en-us&de=UTF-
8&dt=Dr. Bl Avinash Best Internal Medicine in Port Blair, Port
Blair&sd=30-
bit&sr=1680x1050&vp=1351x543&je=0&_u=YADAAEABAAAAACAAI~&jid=8813547
14&gjid=1620957106&cid=1942633967.1674641436&tid=UA-38278756-
4&_gid=377679122.1674641551&_r=1&_slc=1&gtm=2wg1n0585XMHK&z=5096814
4
```

```
 https://www.google.com/pagead/1p-user-
list/877214939/?random=1674641549862&random=1092112737&cv=9&fst=167
4640800000&num=1&guid=ON&eid=375603260&u_h=1050&u_w=1680&u_ah=1025&
u_aw=1680&u_cd=30&u_his=4&u_tz=330&u_java=false&u_nplug=5&u_nmime=2
&sendb=1&frm=0&url=https://www.apolloclinic.com/find-a-doctor/best-
internal-medicine-in-port-blair-andaman-and-nicobar/dr-bl-
avinash&ref=https://www.apolloclinic.com/for-patients/find-a-
doctor&tiba=Dr. Bl Avinash Best Internal Medicine in Port Blair,
Port Blair&fmt=3&is_vtc=1&resp=GooglemKTybQhCsO&rmt_tld=0&ipr=y
```

```
  https://px.ads.linkedin.com/collect?v=2&fmt=js&pid=3406884&time=16
74641551133&url=https://www.apolloclinic.com/find-a-doctor/best-
internal-medicine-in-port-blair-andaman-and-nicobar/dr-bl-avinash
```

```
  https://www.facebook.com/tr/?id=1825232087797311&ev=PageView&dl=ht
tps://www.apolloclinic.com/find-a-doctor/best-internal-medicine-in-
port-blair-andaman-and-nicobar/dr-bl-
avinash&rl=https://www.apolloclinic.com/for-patients/find-a-
doctor&if=false&ts=1674641551560&sw=1680&sh=1050&v=2.9.94&r=stable&
ec=0&o=30&it=1674641550981&coo=false&rqm=GET
```

```
  https://www.google-
analytics.com/collect?v=1&_v=j99&a=1984917860&t=event&ni=1&_s=2&dl=
https://www.apolloclinic.com/find-a-doctor/best-internal-medicine-
in-port-blair-andaman-and-nicobar/dr-bl-avinash&ul=en-us&de=UTF-
8&dt=Dr. Bl Avinash Best Internal Medicine in Port Blair, Port
Blair&sd=30-
bit&sr=1680x1050&vp=1351x543&je=0&ec=Clarity&ea=zn880a&_u=aDDAAEABA
AAAACAAI~&jid=&gjid=&cid=1942633967.1674641436&tid=UA-38278756-
4&_gid=377679122.1674641551&gtm=2wg1n0585XMHK&cd1=https://clarity.m
icrosoft.com/ga/bsmucb69ox/q52ztq/zn880a&z=1241458725
```

Miscellaneous findings

There were also several requests to Microsoft Clarity[2] ('clarity.ms') containing some undecipherable numbers.

Many requests to third parties also included referrer information, allowing them to infer how a user navigates between various pages within the website.

2. Healthify

Healthify is a weight loss application based in India.

2.1 Name and version of the App
App: HealthifyMe – Calorie Counter
Version: v19.1.1

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[2] https://clarity.microsoft.com/

2.2 Trackers

AppsFlyer - analytics	Branch - analytics
CleverTap - analytics, profiling, location	Facebook Analytics- analytics
Facebook Login - identification	Facebook Share
Google AdMob - advertisement	Google CrashLytics - crash reporting
Google Firebase Analytics - analytics	New Relic - analytics
Segment - analytics, profiling	

Source: https://reports.exodus-privacy.eu.org/en/reports/323885/

2.3 Permissions requested

This app requests 36 permissions, including location, bluetooth, contacts and the ability to read files on the device storage.

Source: https://reports.exodus-privacy.eu.org/en/reports/323885/

2.4 Data collection consent banner

While signing up users are required to agree with the privacy policy.

2.5 Main domain to where the data is sent

- https://api.healthifyme.com

2.6 Domains to which advertising ID is sent.

- https://api2.branch.io/v1/install - Google advertising ID and hardware ID
- https://graph.facebook.com/ - Google advertising ID
- https://app-measurement.com - Google advertising ID

2.7 Unexpected data sharing

*Feature: **User sign up***

During sign-up, private information and demographic information such as **email address, name, age, gender, weight and medical conditions** is shared with:

- *eu1.clevertap-prod.com*
- *Zp81luk4-android.mobile-messenger.intercom.com*

Additionally, the user's **email address, name, age, gender and weight** is shared with this domain:

- *app-measurement.com*

```
 https://api2.branch.io/v1/install

Request body (irrelevant parts omitted):
{
     "advertising_ids": {
     "aaid": "0f275e04-7515-42fd-8d2b-7d41b66cddcf"
     },
     "app_version": "v19.1.1",
     "branch_key": "key_live_ffuh25xyXJ6eh377CMydYbhowwjwjcF6",
     "brand": "Genymobile",
     "build": "vbox86p-userdebug 10 QQ1D.200105.002 475 test-keys",
     "cd": {
```

```
    "mv": "-1",
    "pn": "com.healthifyme.basic"
    },
    "connection_type": "wifi",
    "country": "US",
    "cpu_type": "i686",
    "debug": false,
    "device_carrier": "Android",
    "environment": "FULL_APP",
    "facebook_app_link_checked": false,
    "first_install_time": 1673246104862,
    "google_advertising_id": "0f275e04-7515-42fd-8d2b-
7d41b66cddcf",
    "hardware_id": "ef0fb0d8186860b4",
    "instrumentation": {
    "v1/install-qwt": "0"
    },
}
```

```
 https://graph.facebook.com/v13.0/513519302005425/activities

format:                         json
sdk:                            android
custom_events:
    [{"_eventName":"signup_success","_eventName_md5":"eb3358aa19eb
a9e54a991126ce24dda3","_logTime":1675230027,"_ui":"unknown","_inBac
kground":"1"}]
event:                          CUSTOM_APP_EVENTS
anon_id:                        XZ69ba07c4-2cfe-4621-bd2d-
e6d8d681e7bd
application_tracking_enabled:   true
advertiser_id_collection_enabled:true
advertiser_id:                  0f275e04-7515-42fd-8d2b-
7d41b66cddcf
advertiser_tracking_enabled:    true
extinfo:
    ["a2","com.healthifyme.basic",931,"v19.1.1","10","Pixel
3a","en_US","EST","Android",1080,2094,"2.62",2,13,10,"America\/New_
York"]
application_package_name:       com.healthifyme.basic
```

 https://**app-measurement.com**/a

Request body (irrelevant parts omitted):

app_vcode\x12\x03931\x12\x10LaunchReturnSkip\x18\x89\x9f\xf6\xdb\xe
00
\xbe\xa4\xf5\xba\xe00\x1a\x14\x08\x91\x96\xfe\xa9\xd90\x12\x04_fot
\x80\xdb\xd0\xaa\xd90\x1a\x0e\x08\x91\x96\xfe\xa9\xd90\x12\x03_fi
\x01\x1a\x1c\x08\xcd\xee\xf6\xba\xe00\x12\x11Medical_Condition\x1a\
x00\x1a\x0f\x08\xbe\xae\xa8\xbc\xe00\x12\x04_sno
\x04\x1a\x13\x08\xbe\xae\xa8\xbc\xe00\x12\x04_sid
\xd7\xf0\xe3\x9e\x06\x1a\x1c\x08\xb5\x9d\xae\xbc\xe00\x12\x04**Name**\x
1a
sensitiveName\x1a,\x08\xb6\x9d\xae\xbc\xe00\x12\x05**Email**\x1a\x1**cqfq
ecpgpyxklpzhamc@tmmcv.com**\x1a\x10\x08\xb7\x9d\xae\xbc\xe00\x12\x03**A
ge**\x1a\x02**22**\x1a\x12\x08\xb7\x9d\xae\xbc\xe00\x12\x06**Gender**\x1a\x01
M\x1a\x15\x08\xb9\x9d\xae\xbc\xe00\x12\x06**weight**\x1a\x04**80.0**\x1a\x1
2\x08\xbb\x9d\xae\xbc\xe00\x12\x03BMI\x1a\x04**27.7**\x1a%\x08\xbb\x9d\
xae\xbc\xe00\x12	LifeStyle\x1a\x11Moderately
Active\x1a$\x08\xbb\x9d\xae\xbc\xe00\x12\x0fMeal_Preference\x1a
Vegetarian\x1a"\x08\xbb\x9d\xae\xbc\xe00\x12\x0cPrimary_Goal\x1a\x0
blose_weight\x1a$\x08\xbb\x9d\xae\xbc\xe00\x12\x14Notification_Bloc
ked\x1a\x05false\x1a9\x08\xde\xce\xae\xbc\xe00\x12\x0cct_object_id\
x1a"__57a3208d392642bfa5043a6ad1c1f9d9\x1a\x1e\x08\xdf\xce\xae\xbc\
xe00\x12\x10

 https://**eu1.clevertap-prod.com**/a1?os=Android&t=40400&z=48Z-569-
Z84Z&ts=1675231025

Request body (irrelevant parts omitted):
[

     "profile": {
          "Age": 27,
          "BMI": 23.5,
          "Battery_Opt_Disabled": false,
          "Carrier": "Android",
          "Email": "jgydqhbqjmqswprrcx@tmmcv.net",
          "Gender": "M",

```
            "Identity": 35898506,
            "LifeStyle": "Moderately Active",
            "Meal_Preference": "Vegetarian",
            "Medical_Condition": "diabetes, pre-diabetes,
cholesterol, hypertension, pcos, hypothyroid, physical_injury",
            "Name": "sensitiveName",
            "Notification_Blocked": false,
            "Play Version": 224915031,
            "Primary_Goal": "lose_weight",
            "cc": "us",
            "sku_country_code": "INR",
            "tz": "America/New_York",
            "weight": 76
        },
        "s": 1675229791,
        "type": "profile"
        }
]
```

https://**zp81luk4-android.mobile-messenger.intercom.com**/messenger/mobile/users

Request body (irrelevant parts omitted):
```
{
    "user": {
    "email": "jgydqhbqjmqswprrcx@tmmcv.net",
    "intercom_id": "63d9fb4d1cb2b04c9ff1c5d3",
    "type": "user",
    "user_id": "35898506"
    },
    "user_attributes": {
    "custom_attributes": {
        "Notification_Blocked": false,
        "age": "27",
        "bmi": 24,
        "corporate_id": -1,
        "gender": "male",
        "goals": "lose_weight",
        "iAge": 27,
```

        "medical_conditions": "diabetes, pre-diabetes,
cholesterol, hypertension, pcos, hypothyroid, physical_injury",
        "name": "sensitiveName",
        "plan": "FREE",
        "profile_url":
"https://api.healthifyme.com/user/info/?username=jgydqhbqjmqswprrcx
@tmmcv.net",
        "source_name": "playstore",
        "source_type": "b2c",
        "user_ethnicity": "",
        "weight": 78.0
    },
    "email": "jgydqhbqjmqswprrcx@tmmcv.net",
    "user_id": "35898506"
    }
}

 https://**graph.facebook.com**/v13.0/513519302005425/activities

format: json
sdk: android
custom_events:
    [{"_eventName":"activity_track_new","_eventName_md5":"5293b30d
50c6d3d0357667480243f05b","_logTime":1675235880,"_ui":"unknown","_s
ession_id":"55297350-f3a3-4239-b67b-
99b30ed92070"},{"_eventName":"obj_completed","_eventName_md5":"fe51
8b900ec0de352dbb5c6f5d6a6093","_logTime":1675235881,"_ui":"unknown"
,"_session_id":"55297350-f3a3-4239-b67b-99b30ed92070"}]
event: CUSTOM_APP_EVENTS
anon_id: XZ69ba07c4-2cfe-4621-bd2d-
e6d8d681e7bd
application_tracking_enabled: true
advertiser_id_collection_enabled:true
**advertiser_id: 0f275e04-7515-42fd-8d2b-
7d41b66cddcf**
advertiser_tracking_enabled: true
extinfo:
    ["a2","com.healthifyme.basic",931,"v19.1.1","10","Pixel
3a","en_US","EST","Android",1080,2094,"2.62",2,13,10,"America\/New_
York"]
application_package_name: com.healthifyme.basic
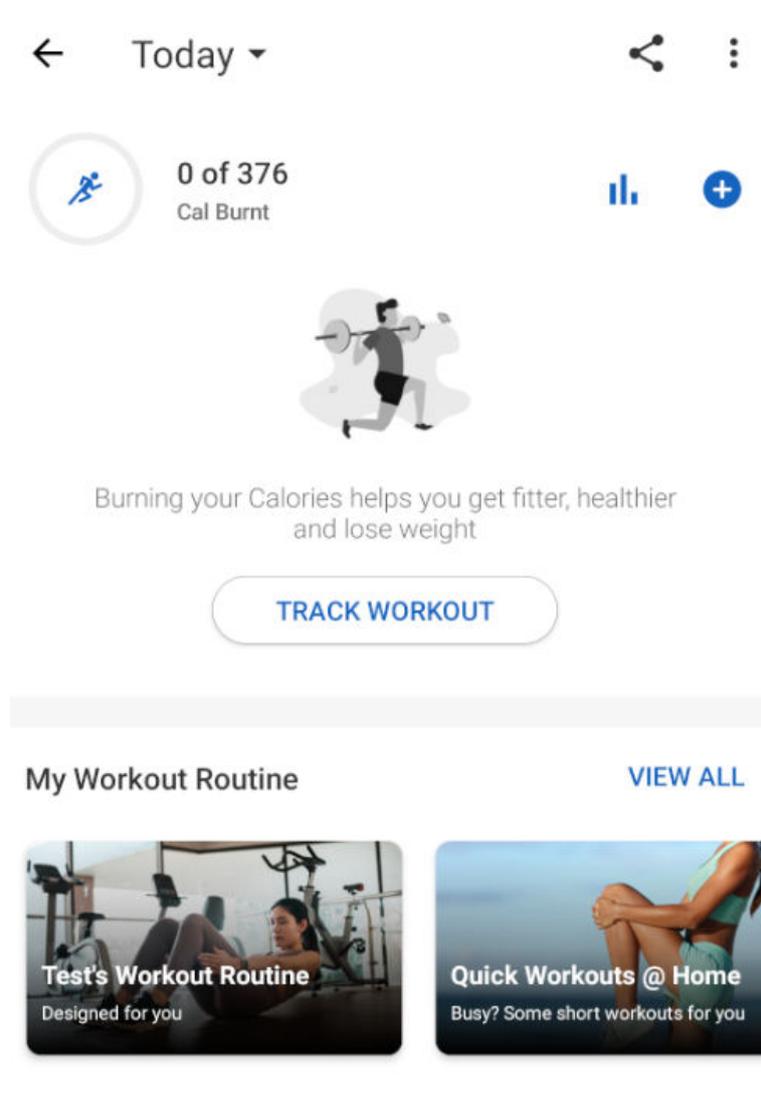
The record of various in-app activities are reported, such as a user sign up, a workout activity is added, food is tracked or an objective is completed with the following domain:

- *graph.facebook.com*

3. MaxLab

Max Lab is the Lab testing arm of Max Hospitals and conducts lab tests. The website allows users to book labs and tests, order the collection of a sample from the user's home and download reports once they're available.

3.1 Name and version of the App

Website: maxlab.co.in
Date of analysis: February 2023

3.2 Trackers

(Identified by Firefox)

- https://www.google-analytics.com
- https://googleads.g.doubleclick.net/
- https://connect.facebook.net
- https://facebook.com

Not identified by firefox but seen in the console

- https://wzrkt.com

3.3 Permissions requested

Location requested

3.4 Data collection consent banner

No consent banner displayed. The site footer includes a privacy policy[3].

3.5 Main domain to where the data is shared

- https://www.maxlab.co.in/
- https://maxcdn.bootstrapcdn.com/
- https://maxlab-web.s3.ap-south-1.amazonaws.com/

3.6 Domains to which advertising ID is sent.

N/A

3.7 Unexpected data sharing

*Feature: **Home Page***

The following trackers get page URL which includes the user's **location i.e. city of access.**

- https://googleads.g.doubleclick.net
- https://www.google.com/pagead/
- https://www.google.co.in/pagead/

```
 GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversio
n/329227548/?random=1675928848718&cv=11&fst=1675928848718&bg=ffffff
&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&hn=www.googleadservi
ces.com&frm=0&url=https://www.maxlab.co.in/delhi&ref=https://www.ma
xlab.co.in/&tiba=Book Lab Test in Delhi - Test Price, Sample
```

---

[3] https://www.maxlab.co.in/privacy-policy

```
Collection | Max
Lab&auid=524609550.1675927280&data=event=gtag.config&rfmt=3&fmt=4
```

```
 GEThttps://www.google.com/pagead/1p-user-
list/329227548/?random=1675928848718&cv=11&fst=1675926000000&bg=fff
fff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.maxlab.co.in/delhi&ref=https://www.maxlab.co.in/&tiba=Book Lab
Test in Delhi - Test Price, Sample Collection | Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=1681371387&rmt_tld
=0&ipr=y
```

```
 GEThttps://www.google.co.in/pagead/1p-user-
list/329227548/?random=1675928848718&cv=11&fst=1675926000000&bg=fff
fff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.maxlab.co.in/delhi&ref=https://www.maxlab.co.in/&tiba=Book Lab
Test in Delhi - Test Price, Sample Collection | Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=1681371387&rmt_tld
=1&ipr=y
```
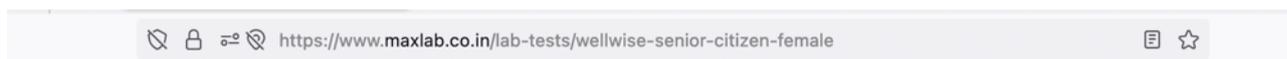
Feature: **Wellwise senior citizen female**

This is a group of services packed in a bundle and includes a collection of lab based tests that can be conducted for senior citizens as part of a comprehensive health check.

https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-female

The page URL includes **location of test (city)** and name of the **service selected**. The name of the service may include sensitive information, for example " wellwise senior citizen female" which identifies the **gender**, **age range** and **lab tests** selected. The following entities get the page URL and service information:

- https://googleads.g.doubleclick.net/
- https://www.google.com/
- https://www.google.co.in
- https://www.google-analytics.com
- https://www.facebook.com/

GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversion/329227548/?random=1675930462277&cv=11&fst=1675930462277&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&hn=www.googleadservices.com&frm=0&url=**https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-female**&ref=**https://www.maxlab.co.in/delhi**&tiba=**Book Wellwise Senior Citizen Female Test Online, Home Collection, Price, Normal Range Max Lab**&auid=524609550.1675927280&data=event=gtag.config&rfmt=3&fmt=4

GEThttps://www.google.com/pagead/1p-user-list/329227548/?random=1675930462040&cv=11&fst=1675929600000&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=**https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-female**&ref=**https://www.maxlab.co.in/delhi**&tiba=**Book Wellwise Senior Citizen Female Test Online, Home Collection, Price, Normal Range Max Lab**&data=event=gtag.config&fmt=3&is_vtc=1&random=1346671928&rmt_tld=0&ipr=y

GEThttps://www.google.co.in/pagead/1p-user-list/329227548/?random=1675930462040&cv=11&fst=1675929600000&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=**https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-**

```
female&ref=https://www.maxlab.co.in/delhi&tiba=Book Wellwise Senior
Citizen Female Test Online, Home Collection, Price, Normal Range
Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=1346671928&rmt_tld
=1&ipr=y
```

```
 GEThttps://www.facebook.com/tr/?id=1100747880752857&ev=PageView&dl
=https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-
female&rl=https://www.maxlab.co.in/delhi&if=false&ts=1675930463327&
sw=1440&sh=900&v=2.9.95&r=stable&ec=0&o=30&cs_est=true&fbp=fb.2.167
5927282498.1501602750&it=1675930462610&coo=false&rqm=GET
```

```
 POSThttps://www.google-analytics.com/g/collect?v=2&tid=G-
M0Z5ZGYS1E&gtm=45je3280&_p=1644774389&cid=1498536083.1675927281&ul=
en-
us&sr=1440x900&uaW=1&sid=1675927280&sct=1&seg=1&dl=https://www.maxl
ab.co.in/lab-tests/wellwise-senior-citizen-
female&dr=https://www.maxlab.co.in/delhi&dt=Book Wellwise Senior
Citizen Female Test Online, Home Collection, Price, Normal Range
Max Lab&_s=1
```

*Feature: **Full Body Check Up tab***

The "Full Body Check Up" tab provides information about the services and packages that the platform offers their users.

Following entities get the current URL, keep track of which url the user has come from and the current page title. Page urls include service name and package name selected which may be sensitive information including **gender**, **age**, and **medical condition**.

- https://googleads.g.doubleclick.net
- https://www.google-analytics.com
- https://www.google.co.in/
- https://www.google.com/

The following entity gets previous and current URLs, but no page title.
- https://www.facebook.com/

GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversion/329227548/?random=1675931597238&cv=11&fst=1675931597238&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&hn=www.googleadservices.com&frm=0&url=**https://www.maxlab.co.in/full-body-health-checkup**&ref=**https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-female**&tiba=**Full Body Checkup Price - Book Health Checkup Packages Online | Max Lab**&auid=524609550.1675927280&data=event=gtag.config&rfmt=3&fmt=4

POSThttps://www.google-analytics.com/g/collect?v=2&tid=G-M0Z5ZGYS1E&gtm=45je3280&_p=1240574422&cid=1498536083.1675927281&ul=en-us&sr=1440x900&uaW=1&_s=2&sid=1675927280&sct=1&seg=1&dl=**https://www.maxlab.co.in/full-body-health-checkup**&dr=**https://www.maxlab.co.in/lab-tests/wellwise-senior-citizen-female**&dt=**Full Body Checkup Price - Book Health Checkup Packages Online | Max Lab**&en=user_engagement&_et=8929

GEThttps://www.google.co.in/pagead/1p-user-list/329227548/?random=1675931597491&cv=11&fst=1675929600000&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=**https://www.maxlab.co.in/full-body-health-checkup**&ref=**https://www.maxlab.co.in/lab-tests/wellwise-senior-**

```
citizen-female&tiba=Full Body Checkup Price - Book Health Checkup
Packages Online | Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=1505556511&rmt_tld
=1&ipr=y
```

```
 GEThttps://www.facebook.com/tr/?id=344997280610941&ev=PageView&dl=
https://www.maxlab.co.in/full-body-health-
checkup&rl=https://www.maxlab.co.in/lab-tests/wellwise-senior-
citizen-
female&if=false&ts=1675931598056&sw=1440&sh=900&v=2.9.95&r=stable&e
c=0&o=30&cs_est=true&fbp=fb.2.1675927282498.1501602750&it=167593159
7742&coo=false&rqm=GET
```

Feature: **Blog**

https://www.maxlab.co.in/blogs/category/kidney-test
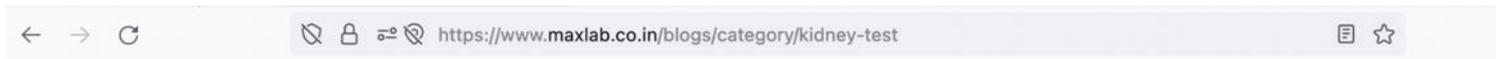
Page URL and page title include sensitive information about the medical condition the user is browsing (for example; 'kidney functions').

- https://googleads.g.doubleclick.net
- https://www.google.co.in/pagead/
- https://www.google.com/

The following entities get the current URL and title
- https://www.google-analytics.com/

```
 GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversio
n/329227548/?random=1675932320070&cv=11&fst=1675932320070&bg=ffffff
&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&hn=www.googleadservi
ces.com&frm=0&url=https://www.maxlab.co.in/blogs/could-you-need-a-
kidney-function-test&ref=https://www.maxlab.co.in/full-body-health-
checkup&tiba=Could You Need a Kidney Function Test? Find Out Here |
Max
Lab&auid=524609550.1675927280&data=event=gtag.config&rfmt=3&fmt=4
```

```
 GEThttps://www.google-
analytics.com/collect?v=1&_v=j99&a=130347553&t=pageview&_s=1&dl=htt
ps://www.maxlab.co.in/blogs/could-you-need-a-kidney-function-
test&ul=en-us&de=UTF-8&dt=Could You Need a Kidney Function Test?
Find Out Here | Max Lab&sd=30-
bit&sr=1440x900&vp=1267x714&je=0&_u=QACAAEABAAAAACAAI~&jid=&gjid=&c
id=1498536083.1675927281&tid=UA-23425895-
5&_gid=1096093788.1675927282&gtm=45He3280n81TNFS7V8&z=1786851310
```

Miscellaneous findings

Following trackers get the current URL and keeps track of which url the user has come from in addition to the current page title

- https://googleads.g.doubleclick.net

- https://www.google.co.in/pagead/
- https://www.google.com/
- www.facebook.com

This referrer information allows them to infer how a user navigates between various pages within the website. Data leak is further compounded by the way MaxLab codes its URLs which leaves a lot of information visible. Name of services, age, gender, medical conditions, and user location have all found their way into the URL string throughout different pages of the website.

```
 GEThttps://www.google.co.in/pagead/1p-user-
list/329227548/?random=1675932320070&cv=11&fst=1675929600000&bg=fff
fff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.maxlab.co.in/blogs/could-you-need-a-kidney-function-
test&ref=https://www.maxlab.co.in/full-body-health-
checkup&tiba=Could You Need a Kidney Function Test? Find Out Here |
Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=3287847974&rmt_tld
=1&ipr=y
```

```
 GEThttps://www.google.com/pagead/1p-user-
list/329227548/?random=1675932320070&cv=11&fst=1675929600000&bg=fff
fff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.maxlab.co.in/blogs/could-you-need-a-kidney-function-
test&ref=https://www.maxlab.co.in/full-body-health-
checkup&tiba=Could You Need a Kidney Function Test? Find Out Here |
Max
Lab&data=event=gtag.config&fmt=3&is_vtc=1&random=3287847974&rmt_tld
=0&ipr=y
```

```
 GEThttps://www.facebook.com/tr/?id=344997280610941&ev=PageView&dl=
https://www.maxlab.co.in/blogs/could-you-need-a-kidney-function-
test&rl=https://www.maxlab.co.in/full-body-health-
checkup&if=false&ts=1675932321116&sw=1440&sh=900&v=2.9.95&r=stable&
ec=0&o=30&cs_est=true&fbp=fb.2.1675927282498.1501602750&it=16759323
20989&coo=false&rqm=GET
[HTTP/2 200 OK 64ms]
```

For most features analysed, information is sent to https://wzrkt.com/ as well but the message is obfuscated, thus it is hard to identify what is being sent.

```
 GEThttps://wzrkt.com/a?t=96&type=push&d=N4IgLgngDgpiBcIoCcD2AzAlgG
zgGiTS1wVAGFNIEQARGbAC0xALAC9qBxAWQBUBqAAwBWAMyCQAXwKYAJtQAsCgNIBaA
OzL1qgJzKAbAC0WIAObV16/eoDGO9ACZHMABwKdO/QEN0ARkEOMPqiDurCOsKRviZQ5
vC+kkAAA&rn=3&i=1675928849&sn=1&gc=7767c9f2f2e84996af102e6327595551
&arp=N4IgVg+gdiBcIC0DuBeFIA0ICW06IFsAbAcwFMBBASQBEAhCtTEAEwgBcBnOAB
ixYAWvLADc4ARiyRu8YAAIAvs2wt8AFjUBpALQB2Tbu0BOTQDYEzMhxl8QAJ2sTTugK
xGATLrXi1CoAA==&useIP=true&r=1675928849104
```

4. Netmeds

Netmeds is an e-pharmacy app that delivers medication, lifestyle and beauty products to the user. They also offer lab tests with samples collected from the user's home.

4.1 Name and version of the App

Website: netmeds.com
Date of analysis: February 2023

4.2 Trackers

(identified by firefox)

www.google-analytics.com	https://connect.facebook.net
https://googleads.g.doubleclick.net	https://www.facebook.com
https://static.criteo.net	https://stats.g.doubleclick.net
https://gum.criteo.net	https://sslwidget.criteo.net

Doesn't show up the firefox list but present in the developer console
- https://bat.bing.com

4.3 Permissions requested

None requested

4.4 Data collection consent banner

Consent banner present at the bottom of the screen.

4.5 Main domain to where the data is shared

www.netmeds.com

4.6 Domains to which advertising ID is sent.

N.A.

4.7 Unexpected data sharing

Feature: **select a medication**

This can be done in multiple ways. Clicking on the Medicine tab in the menu, then on all medicine, which brings up the list of conditions for which the website has stock (medicine -> all medicine -> anxiety)

The web app allows the user to select a medicine using the medical condition that they're treating.

The following entities receive the page URL which includes the **name of the medical condition** for which the user is looking for medicine. Example -> 'https://www.netmeds.com/prescriptions/anxiety'.

- https://googleads.g.doubleclick.net/
- https://bat.bing.com
- https://www.google.com/pagead/
- https://www.google.co.in/pagead/
- https://www.facebook.com/
- https://www.google-analytics.com
- https://sslwidget.criteo.com/

The following entities also receive the page title, which includes the name of the **medical condition**.

- https://googleads.g.doubleclick.net/
- https://bat.bing.com
- https://www.google.com/pagead/
- https://www.google.co.in/pagead/
- https://www.google-analytics.com

```
GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversio
n/878044376/?random=1676021781639&cv=11&fst=1676021781639&bg=ffffff
&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&hn=www.googleadservi
ces.com&frm=0&url=https://www.netmeds.com/prescriptions/anxiety&tib
a=Anxiety - Search & Shop Prescription Medicines Online at
Netmeds.com.&auid=170188024.1676009926&rfmt=3&fmt=4
```

```
GEThttps://bat.bing.com/action/0?ti=26076008&tm=gtm002&Ver=2&mid=c
625c5f2-ab00-4f0d-ab0c-
4c24c44c7f40&sid=c6a5ee50a90a11edbf7a135da5cfe3e5&vid=c6a61b80a90a1
1eda5f87d81f0213e26&vids=0&msclkid=N&pi=918639831&lg=en-
US&sw=1440&sh=900&sc=30&tl=Anxiety - Search & Shop Prescription
Medicines Online at Netmeds.com.&kw=Online Pharmacy India, Medicine
Online, Medicine Store, Online Medical Store, Purchase Medicine
Online, Prescription Medicines, Prescription Drugs,
Anxiety&p=https://www.netmeds.com/prescriptions/anxiety&r=&lt=1770&
evt=pageLoad&sv=1&rn=71221
```

```
GEThttps://www.google.com/pagead/1p-user-
list/878044376/?random=1676021781715&cv=11&fst=1676019600000&bg=fff
fff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=https:/
```

/www.netmeds.com/prescriptions/anxiety&tiba=**Anxiety - Search & Shop Prescription Medicines Online at Netmeds.com.**&data=event=gtag.config&fmt=3&is_vtc=1&random=295218792&rmt_tld=0&ipr=y

GEThttps://www.google.co.in/pagead/1p-user-list/878044376/?random=1676021781715&cv=11&fst=1676019600000&bg=ffffff&guid=ON&async=1&gtm=45be3280&u_w=1440&u_h=900&frm=0&url=**https://www.netmeds.com/prescriptions/anxiety**&tiba=**Anxiety - Search & Shop Prescription Medicines Online at Netmeds.com.**&data=event=gtag.config&fmt=3&is_vtc=1&random=295218792&rmt_tld=1&ipr=y

GEThttps://www.facebook.com/tr/?id=754239078489150&ev=PageView&dl=**https://www.netmeds.com/prescriptions/anxiety**&rl=&if=false&ts=167602 1782623&sw=1440&sh=900&v=2.9.95&r=stable&ec=0&o=30&cs_est=true&fbp =fb.1.1676009927220.1077067521&it=1676021782582&coo=false&rqm=GET

GEThttps://www.google-analytics.com/collect?v=1&_v=j99&a=540804756&t=pageview&_s=1&dl=**https://www.netmeds.com/prescriptions/anxiety**&ul=en-us&de=UTF-8&dt=**Anxiety - Search & Shop Prescription Medicines Online at Netmeds.com**.&sd=30-bit&sr=1440x900&vp=1267x714&je=0&_u=SACAAEABQAAAACAAI~&jid=&gjid=&cid=807005760.1676009926&tid=UA-63910444-1&_gid=870933816.1676009927&gtm=45He3280n7156CPBN&z=539063802

GEThttps://sslwidget.criteo.com/event?a=56520&v=5.13.0&p0=e=ce&m=%5B%5D&p1=e=exd&site_type=d&p2=e=vl&p=%5B982894%2C1038853%5D&p3=e=dis&adce=1&tld=**netmeds.com**&fu=https%3A%2F%2F**www.netmeds.com**%2F**prescriptions**%2F**anxiety**&dtycbr=64179

Feature: *__Medicine Order Page__*

Once a drug is identified from the list of results, the user is navigated to its own page which includes some information about the drug and the image of the packaging.

The following trackers get the URL and title of the page which includes the **name of the drug** even <u>before</u> "Add to Cart" is selected:

- https://www.google-analytics.com
- https://bat.bing.com/
- https://googleads.g.doubleclick.net/
- https://www.google.com/
- https://www.google.co.in/

The following gets the page URL which includes the name of the drug even <u>before</u> "Add to Cart" is selected:
- https://www.facebook.com

In addition to the name of the drug, the name of the medical condition is sent to:
- https://bat.bing.com/

GEThttps://bat.bing.com/action/0?ti=26076008&tm=gtm002&Ver=2&mid=db872ad5-33cb-4c39-b0ec-8c16d358cc9f&sid=c6a5ee50a90a11edbf7a135da5cfe3e5&vid=c6a61b80a90a11eda5f87d81f0213e26&vids=0&msclkid=N&pi=918639831&lg=en-US&sw=1440&sh=900&sc=30&tl=**OBSIKON CR 12.5 Tablet 10's - Buy Medicines online at Best Price from Netmeds.com**&kw=O**BSIKON CR 12.5 Tablet 10's, Online Pharmacy India, Medicine Online, Medicine**

```
Store, Online Medical Store, Purchase
Medicine,anxiety&p=https://www.netmeds.com/prescriptions/obsikon-
cr-12-5-tablet-10s&r=&lt=809&evt=pageLoad&sv=1&rn=913364
```

```
 GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversio
n/878044376/?random=1676023137098&cv=11&fst=1676023137098&bg=ffffff
&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&hn=www.googleadservi
ces.com&frm=0&url=https://www.netmeds.com/prescriptions/obsikon-cr-
12-5-tablet-10s&tiba=OBSIKON CR 12.5 Tablet 10's - Buy Medicines
online at Best Price from
Netmeds.com&auid=170188024.1676009926&rfmt=3&fmt=4
```

```
 GEThttps://www.google.com/pagead/1p-user-
list/878044376/?random=1676023137098&cv=11&fst=1676019600000&bg=fff
fff&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-
10s&tiba=OBSIKON CR 12.5 Tablet 10's - Buy Medicines online at Best
Price from
Netmeds.com&fmt=3&is_vtc=1&random=3301840646&rmt_tld=0&ipr=y
```

```
 GEThttps://www.google.co.in/pagead/1p-user-
list/878044376/?random=1676023137098&cv=11&fst=1676019600000&bg=fff
fff&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&frm=0&url=https:/
/www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-
10s&tiba=OBSIKON CR 12.5 Tablet 10's - Buy Medicines online at Best
Price from
Netmeds.com&fmt=3&is_vtc=1&random=3301840646&rmt_tld=1&ipr=y
```

```
 GEThttps://www.facebook.com/tr/?id=754239078489150&ev=PageView&dl=
https://www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-
10s&rl=&if=false&ts=1676023138463&sw=1440&sh=900&v=2.9.95&r=stable&
ec=0&o=30&cs_est=true&fbp=fb.1.1676009927220.1077067521&it=16760231
38353&coo=false&rqm=GET
```

Clicking add to cart increases the amount of information sent to the trackers:

The Page URL, which includes the name of the drug, is sent to:
- https://sslwidget.criteo.com/

The page URL (including the medicine name) and the intent to purchase (a click event) is sent to

- https://www.google.com/
- https://www.facebook.com
- https://googleads.g.doubleclick.net/
- https://analytics.google.com
- https://www.google.co.in

In addition to the above, the following get the cost and quantity of drug added to cart, and the medical condition for the drug

- https://www.facebook.com
- https://analytics.google.com

analytics.google.com also gets the city selected by the user at first navigation to the website.

```
 GEThttps://www.google.com/pagead/1p-
conversion/878044376/?random=1676025658588&cv=11&fst=1676025658588&
bg=ffffff&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&label=xfZHC
P-
H5s0DENjJ16ID&hn=www.google.com&frm=0&url=https://www.netmeds.com/p
rescriptions/obsikon-cr-12-5-tablet-10s&tiba=OBSIKON CR 12.5 Tablet
10's - Buy Medicines online at Best Price from
Netmeds.com&value=0&bttype=purchase&auid=170188024.1676009926&gcp=1
&sscte=1&ct_cookie_present=1&rfmt=3&fmt=4
```

```
 GEThttps://www.facebook.com/tr/?id=754239078489150&ev=AddToCart&dl
=https://www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-
10s&rl=&if=false&ts=1676025658598&cd[content_name]=OBSIKON CR 12.5
Tablet
10's&cd[content_type]=product&cd[content_category]=Anxiety&cd[curre
ncy]=INR&cd[value]=135&cd[contents]=[{"id":1075516,"quantity":1}]&s
w=1440&sh=900&v=2.9.95&r=stable&ec=3&o=1054&fbp=fb.1.1676009927220.
1077067521&it=1676023138353&coo=false&rqm=GET
```

```
 GEThttps://googleads.g.doubleclick.net/pagead/viewthroughconversio
n/878044376/?random=1676025658588&cv=11&fst=1676025658588&fmt=3&bg=
ffffff&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&label=xfZHCP-
H5s0DENjJ16ID&hn=www.google.com&frm=0&url=https://www.netmeds.com/p
rescriptions/obsikon-cr-12-5-tablet-10s&tiba=OBSIKON CR 12.5 Tablet
10's - Buy Medicines online at Best Price from
Netmeds.com&value=0&bttype=purchase&auid=170188024.1676009926&gcp=1
&ct_cookie_present=1
```

POSThttps://analytics.google.com/g/collect?v=2&tid=G-ZD1BC704WF&gtm=45je3280&_p=1023163039&_gaz=1&cid=807005760.1676009926&ul=en-us&sr=1440x900&uaW=1&_s=4&cu=**INR**&sid=1676025658&sct=3&seg=0&dl=**https://www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-10s**&dt=**OBSIKON CR 12.5 Tablet 10's - Buy Medicines online at Best Price from Netmeds.com**&en=**add_to_cart**&_ss=1&pr1=**nmOBSIKON CR 12.5 Tablet 10's**~id1075516~pr135~brIKON PHARMACHEM PVT LTD~ca**Anxiety**~qt1~k0ProductId_City~v01075516_**CENTRAL DELHI**~k1available_city~v1**CENTRAL DELH**I~k2affiliiation~v2&ep.category=Anxiety&epn.value=**135**

GEThttps://www.google.co.in/pagead/1p-conversion/878044376/?random=1676025658588&cv=11&fst=1676025658588&bg=ffffff&guid=ON&async=1&gtm=45He3280&u_w=1440&u_h=900&label=xfZHC P-H5s0DENjJ16ID&hn=www.google.com&frm=0&url=**https://www.netmeds.com/prescriptions/obsikon-cr-12-5-tablet-10s**&tiba=**OBSIKON CR 12.5 Tablet 10's - Buy Medicines online at Best Price from Netmeds.com**&value=0&bttype=**purchase**&auid=170188024.1676009926&gcp=1&sscte=1&ct_cookie_present=1&rfmt=3&fmt=4&ipr=y&prhg=0&ezwbk=AZuM4h DL5U-wRhSQjGoF50k9ovhmA9b0rDfrhGVHFCgoYaMxkys7KCYl89NRU71Q8sycebt4M9y06J RQINPtjl0LmIiX

5. Maya

5.1 Name and version of the App

App: Maya : Period tracker for Women
Date of analysis: April 2023

5.2 Trackers

Google AdMob: advertisement	Facebook Ads: advertisement
Google Analytics: analytics	Facebook Analytics: analytics
Google CrashLytics: crash reporting	Facebook login: identification
Google Firebase Analytics: analytics	Facebook Share
Google Tag Manager: analytics	

Exodus tracker: *https://reports.exodus-privacy.eu.org/en/reports/in.plackal.lovecyclesfree/latest/*

5.3 Permissions requested

This app requests 21 permissions, including approximate location, camera access, the ability to read contacts and update the device storage

Source: *https://reports.exodus-privacy.eu.org/en/reports/in.plackal.lovecyclesfree/latest/*

5.4 Data collection consent banner

A banner is not presented, but a link to privacy policy is present at sign up

5.5 Main domain to where the data is sent

- App.maya.live

5.6 Domains to which advertising ID is sent.

Not available

5.7 Unexpected data sharing

Maya is a period tracking app and has been the subject of PI investigations in the past.

At launching the app, the following trackers are initialised and collect the login event:

- graph.facebook.com
- firebaselogging-pa.googleapis.com
- ssl.google-analytics.com

The following get all analytics for any page that is visited and any data that is added to the app:
- firebaselogging-pa.googleapis.com
- ssl.google-analytics.com

While the specifics of the symptoms, notes or medication etc are not recorded, the fact that a user has added a symptom, mood, or birth control are all events that are recorded by the mentioned trackers. The app also has a section for users to record when they last had sex and whether it was protected or unprotected. While this feature is not mandatory, its use by the user is picked up by the above analytics.

```
  {

"supports_implicit_sdk_logging":true,"gdpv4_nux_enabled":false,"android_sdk_error_
categories":[ {
      "name":"login_recoverable","items":[ {
```

```
        "code":102
        }
        , {
        "code":190
        }
        ],"recovery_message":"Please log into this app again to reconnect your
Facebook account."
    }
    ],"app_events_session_timeout":60,"app_events_feature_bitmask":65559,"seamless_l
ogin":1,"smart_login_bookmark_icon_url":"https:\/\/static.xx.fbcdn.net\/rsrc.php\/
v3\/y6\/r\/yJMnJy6rFT-.png","smart_login_menu_icon_url":"https:\/\/static.xx.fbcdn
.net\/rsrc.php\/v3\/yT\/r\/KNd968JWj-
b.png","aam_rules":"{}","suggested_events_setting":"{\"production_events\":[],\"el
igible_for_prediction_events\":[\"fb_mobile_add_to_cart\",\"fb_mobile_purchase\",\
"fb_mobile_initiated_checkout\"]}","id":"279652068750718"
}
```

```
 {
      "logRequest": [
      {
            "clientInfo": {
            "androidClientInfo": {
                  "applicationBuild": "202",
                  "country": "US",
                  "device": "vbox86p",
                  "fingerprint":
"google/vbox86p/vbox86p:11/RQ1A.210105.003/590:userdebug/test-keys,patch-1",
                  "hardware": "vbox86",
                  "locale": "en",
                  "manufacturer": "Genymobile",
                  "mccMnc": "310270",
                  "model": "Galaxy S8",
                  "osBuild": "RQ1A.210105.003",
                  "product": "vbox86p",
                  "sdkVersion": 30
            },
            "clientType": "ANDROID_FIREBASE"
            },
            "logEvent": [
            {
                  "eventTimeMs": 1682320896020,
                  "eventUptimeMs": 5452020,
                  "networkConnectionInfo": {
                        "mobileSubtype": "UNKNOWN_MOBILE_SUBTYPE",
                        "networkType": "WIFI"
                  },
                  "sourceExtension":
"Cg4Ih/SJkfswEJPgjpH7MBoLCgkIgMADEICAgAUiGWluLnBsYWNrYWwubG92ZWN5Y2xlc2ZyZWU=",
                  "timezoneOffsetSeconds": 19800
            }
```

```
                ],
                "logSourceName": "GDT_CLIENT_METRICS",
                "qosTier": "DEFAULT",
                "requestTimeMs": 1682320896024,
                "requestUptimeMs": 5452024
        },
        {
                "clientInfo": {
                "androidClientInfo": {
                        "applicationBuild": "202",
                        "country": "US",
                        "device": "vbox86p",
                        "fingerprint":
"google/vbox86p/vbox86p:11/RQ1A.210105.003/590:userdebug/test-keys,patch-1",
                        "hardware": "vbox86",
                        "locale": "en",
                        "manufacturer": "Genymobile",
                        "mccMnc": "310270",
                        "model": "Galaxy S8",
                        "osBuild": "RQ1A.210105.003",
                        "product": "vbox86p",
                        "sdkVersion": 30
                },
                "clientType": "ANDROID_FIREBASE"
                },
                "logEvent": [
                {
                        "eventTimeMs": 1682320845206,
                        "eventUptimeMs": 5401206,
                        "networkConnectionInfo": {
                                "mobileSubtype": "UNKNOWN_MOBILE_SUBTYPE",
                                "networkType": "WIFI"
                        },
                        "sourceExtension":
"CnAKJjE6NzE1MzQwMjgxNjk6YW5kcm9pZDo5ZDA2MGUyMmZhZDFkNTE3EhZldnlSOFZJTlRfMnJINDEyU
URJUWhNGiwKGWluLnBsYWNrYWwubG92ZWN5Y2xlc2ZyZWUSBjIwLjMuMRoHMy43LjEuMygBEnEKFl9zdF9
Ib21lUGFyZW50QWN0aXZpdHkguJPfqv3B/gIol+mRGDILCgdfZnJfc2xvEAYyCwoHX2ZyX3RvBAGMgsKB
19mcl9mem4QBUoiCiAzNzBkMzAxZTA3YzQ0Nzk1OTMxODM2NGE1MjIxMTcwYg==",
                        "timezoneOffsetSeconds": 19800
                },
                {
                        "eventTimeMs": 1682320883798,
                        "eventUptimeMs": 5439798,
                        "networkConnectionInfo": {
                                "mobileSubtype": "UNKNOWN_MOBILE_SUBTYPE",
                                "networkType": "WIFI"
                        },
                        "sourceExtension":
"CnAKJjE6NzE1MzQwMjgxNjk6YW5kcm9pZDo5ZDA2MGUyMmZhZDFkNTE3EhZldnlSOFZJTlRfMnJINDEyU
URJUWhNGiwKGWluLnBsYWNrYWwubG92ZWN5Y2xlc2ZyZWUSBjIwLjMuMRoHMy43LjEuMygBEm4KE19zdF9
```

```
Qcm9maWxlQWN0aXZpdHkg0Oqkwf3B/gIoksGJFDILCgdfZnJfc2xvEBIyCwoHX2ZyX3RvdBASMgsKB19mc
l9mem4QAkoiCiAzNzBkMzAxZTA3YzQ0Nzk1OTMxODM2NGE1MjIxMTcwYg==",
                "timezoneOffsetSeconds": 19800
            },
            {
                "eventTimeMs": 1682320884027,
                "eventUptimeMs": 5440027,
                "networkConnectionInfo": {
                        "mobileSubtype": "UNKNOWN_MOBILE_SUBTYPE",
                        "networkType": "WIFI"
                },
                "sourceExtension":
"CnAKJjE6NzE1MzQwMjgxNjk6YW5kcm9pZDo5ZDA2MGUyMmZhZDFkNTE3EhZldnlSOFZJTlRfMnJINDEyU
URJUWhNGiwKGWluLnBsYWNrYWwubG92ZWN5Y2xlc2ZyZWUSBjIwLjMuMRoHMy43LjEuMygBGosBCiZodHR
wczovL2FwcC5tYXlhLmxxpdmUvdjEvdXNlci9zZXR0aW5ncxACGN4CIMADKMgBMh9hcHBsaWNhdGlvbi9qc
29uOyBjaGFyc2V0PXV0Zi04OJDf19T9wf4CQOHYDEhEUOi8Z2oiCiAzNzBkMzAxZTA3YzQ0Nzk1OTMxODM
2NGE1MjIxMTcwYg==",
                "timezoneOffsetSeconds": 19800
            }
            ],
            "logSourceName": "FIREPERF",
            "qosTier": "DEFAULT",
            "requestTimeMs": 1682320896024,
            "requestUptimeMs": 5452024
        }
        ]
}


Source extension is encoded in base 64
```

6. Practo

Practo is an online healthcare provider based in India that allows users to book video consultations, order medicines, book doctor appointments and lab tests, and find doctors.

6.1 Name and version of the App
Website: Practo (https://www.practo.com/)
Date of analysis: February 2023

6.2 Trackers
(Identified by Firefox)

https://connect.facebook.net	https://adservice.google.com
https://www.google-analytics.com	https://stats.g.doubleclick.net
https://9535906.fls.doubleclick.net	https://www.facebook.com

6.3 Permissions requested
Location (requested by some pages)

6.4 Data collection consent banner
A banner is not presented, but a link to privacy policy[4] is present in the page footer.

6.5 Main domain to where the data is sent
- practo.com

6.6 Domains to which advertising ID is sent.
N/A

6.7 Unexpected data sharing
*Feature: **Practo Health Wiki***

Explains various health conditions and procedures.

---

[4] https://www.practo.com/company/privacy

Practo Health-Wiki

Diseases & Conditions   Procedures

Auto-Immune Disorders

Acquired Immune Deficiency Syndrome (AIDS): Causes, Complications, and Treatment

Arthritis: Symptoms and Treatment

Crohn's Disease: Symptoms, Complications, and Treatment

Diabetes Mellitus Type 1: Symptoms, Complications, and Treatment

Gout: Causes, Symptoms, and Treatment

Hip Replacement in India

Lupus: Causes, Symptoms, and Treatment

Meniere's Disease: Causes, Symptoms, And Treatment

Multiple Sclerosis: Symptoms and Treatment

Osteoarthritis: Symptoms and Treatment

Rheumatoid Arthritis: Symptoms and Treatment

Chronic Health Diseases and Conditions

Asthma: Symptoms, Complications, and Treatment

COPD: Causes, Symptoms, and Treatment

Diabetes Mellitus Type 2: Symptoms, Complications, and Treatment

Hypothyroidism: Symptoms and Treatment

Irritable Bowel Syndrome (IBS): Symptoms, Complications and Treatment

Parkinson's Disease: Causes, Symptoms & Treatment

Piles: Causes, Symptoms, and Treatment

Thalassemia: Causes, Symptoms, and Treatment

Female Healthcare

Cervical Cancer: Symptoms, Complications, and Treatment

Endometriosis: Symptoms, and Treatment

Female Condom: Basic Facts, and How to Use

Fibroids: Symptoms, and Treatment

Menopause: Symptoms, Perimenopause and Relief

Periods or the Menstrual Cycle in Women

Polycystic Ovary Syndrome (PCOS): Symptoms, Complications, and Treatment

Premenstrual Syndrome (PMS): Symptoms and Treatment

General Health Issues

Acidity: Symptoms, Treatment, and Home Remedies

Anemia: Meaning, Symptoms, and Types

Concussion: Symptoms and Treatment

Constipation: Causes, Remedies, and Relief

Diarrhea: Meaning, Treatment, and Symptoms

Gastritis: Symptoms and Treatment

Heat Stroke (Sunstroke): Symptoms

Hernia: Causes, Symptoms, and Trea

Insomnia (Sleeplessness): Symptom

Jaundice: Symptoms, Complications,

Pimple: Causes, Symptoms, and Trea

Sinusitis: Infection, Symptoms, and Treatment

The page URL and title, which includes the name of the **health condition selected by a user**, is shared with the following entities:

- google-analytics.com
- googleads.g.doubleclick.net
- google.com/pagead/
- google.co.in/pagead/

Additionally, the **medical speciality corresponding to the chosen health condition** (for example, if a patient selects kidney disease so the corresponding specialty would be nephrology) is shared with the following:

- 9535906.fls.doubleclick.net
- google-analytics.com
- adservice.google.com

```
 https://www.google-
analytics.com/j/collect?v=1&_v=j99&a=39810613&t=pageview&_s=1&dl=h
ttps://www.practo.com/health-wiki/arthritis-symptoms-and-
```

treatment/43/article&ul=en-us&de=UTF-8&dt=**Arthritis: Symptoms and Treatment**&sd=30-bit&sr=1680x1050&vp=1386x543&je=0&_u=AACAAEABAAAAACAAI~&jid=&gjid=&cid=1055410137.1675748022&tid=UA-18841050-11&_gid=360759549.1675748022&_slc=1&z=1570985833

https://**googleads.g.doubleclick.net**/pagead/viewthroughconversion/942004674/?random=1675748829620&cv=11&fst=1675748829620&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=1050&hn=www.googleadservices.com&frm=1&url=https://www.practo.com/health-wiki/**arthritis-symptoms-and-treatment/**43/article&ref=https://www.practo.com/health-wiki/arthritis-symptoms-and-treatment/43/article&tiba=Practo | Find Doctors, Diagnostic Labs, Gyms, Spas & Salons&auid=1725535375.1675748007&data=event=gtag.config&rfmt=3&fmt=4

https://**9535906.fls.doubleclick.net**/activityi;src=9535906;type=remar0;cat=globa0;ord=1;num=7575166485598;gtm=45fe3210;auiddc=1725535375.1675748007;~oref=https%3A%2F%2Fwww.practo.com%2Fsapphire-widgets%2Fcarousel%2Fprime-providers%3Fsubspeciality%3D**Rheumatologist**%26utm_source%3Dhealth-wiki

https://www.**google-analytics.com**/j/collect?v=1&_v=j99&a=1044004596&t=pageview&cu=INR&_s=1&dl=https://www.practo.com/sapphire-widgets/carousel/prime-providers?subspeciality=**Rheumatologist**&utm_source=health-wiki&dp=/sapphire-widgets/carousel/prime-providers&ul=en-us&de=UTF-8&dt=Practo | Find Doctors, Diagnostic Labs, Gyms, Spas & Salons&sd=30-bit&sr=1680x1050&vp=713x500&je=0&_u=SCCAAEIJAAAAACAMI~&jid=&gjid=&cid=1055410137.1675748022&tid=UA-18841050-11&_gid=360759549.1675748022&_slc=1&z=1877109804

https://www.**google-analytics.com**/j/collect?v=1&_v=j99&a=1044004596&t=pageview&cu=INR&_s=1&dl=https://www.practo.com/sapphire-widgets/carousel/prime-providers?subspeciality=**Rheumatologist**&utm_source=health-wiki&dp=/sapphire-widgets/carousel/prime-providers&ul=en-us&de=UTF-8&dt=Practo | Find Doctors, Diagnostic Labs, Gyms, Spas

```
& Salons&sd=30-
bit&sr=1680x1050&vp=713x500&je=0&_u=SCCAAEIJAAAAACAMI~&jid=&gjid=&
cid=1055410137.1675748022&tid=UA-18841050-
11&_gid=360759549.1675748022&_slc=1&z=1877109804
```

```
 https://www.google.com/pagead/1p-user-
list/942004674/?random=1675748829620&random=1819040393&cv=11&fst=1
675746000000&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=1
050&frm=1&url=https://www.practo.com/health-wiki/arthritis-
symptoms-and-
treatment/43/article&ref=https://www.practo.com/health-
wiki/arthritis-symptoms-and-treatment/43/article&tiba=Practo |
Find Doctors, Diagnostic Labs, Gyms, Spas &
Salons&data=event=gtag.config&fmt=3&is_vtc=1&rmt_tld=0&ipr=y
```

```
 https://www.google.co.in/pagead/1p-user-
list/942004674/?random=1675748829620&random=1819040393&cv=11&fst=1
675746000000&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=1
050&frm=1&url=https://www.practo.com/health-wiki/arthritis-
symptoms-and-
treatment/43/article&ref=https://www.practo.com/health-
wiki/arthritis-symptoms-and-treatment/43/article&tiba=Practo |
Find Doctors, Diagnostic Labs, Gyms, Spas &
Salons&data=event=gtag.config&fmt=3&is_vtc=1&rmt_tld=1&ipr=y
```

Feature: **Find a doctor**

This page helps users find a doctor for a chosen medical specialisation near their location.

The **chosen medical speciality** and **exact GPS location of the user** is shared with the following entities:

- google-analytics.com
- facebook.com

When the user attempts to book an appointment with the doctor, the **Doctor's last name, medical specialisation, appointment time and appointment cost** is shared with the following:

- googleads.g.doubleclick.net
- google-analytics.com
- google.com/pagead
- google.co.in/pagead
- facebook.com

```
https://adservice.google.com/ddm/fls/z/src=9535906;type=event0;ca
t=marke0;ord=1;num=4167557842278;gtm=45fe3210;auiddc=*;~oref=https
%3A%2F%2Fwww.practo.com%2Fsapphire-widgets%2Fcarousel%2Fprime-
providers%3Fsubspeciality%3DRheumatologist%26utm_source%3Dhealth-
wiki
```

```
https://www.google-
analytics.com/j/collect?v=1&_v=j99&a=1372296889&t=pageview&_s=1&dl
=https://www.practo.com/search/doctors?results_type=doctor&q=%5B%7
B%22word%22%3A%22Dermatologist%22%2C%22autocompleted%22%3Atrue%2C%
22category%22%3A%22subspeciality%22%7D%5D&latitude=12.980775773157
383&longitude=77.63935893265563&location_type=geo%20location&city=
Bangalore&ul=en-us&de=UTF-8&dt=Best Dermatologists In J.c Nagar,
Bangalore - Instant Appointment Booking, View Fees, Feedbacks |
Practo&sd=30-
bit&sr=1680x1050&vp=1386x386&je=0&_u=SCCAAEIJAAAAACAMI~&jid=243505
593&gjid=1554454516&cid=1055410137.1675748022&tid=UA-18841050-
11&_gid=360759549.1675748022&_r=1&_slc=1&z=1544248071
```

```
URL: https://www.facebook.com/tr/

Request Body (truncated for brevity):

https://www.practo.com/search/doctors?results_type=doctor&q=%5B%7B
%22word%22%3A%22Dermatologist%22%2C%22autocompleted%22%3Atrue%2C%2
2category%22%3A%22subspeciality%22%7D%5D&latitude=12.9807757731573
83&longitude=77.63935893265563&location_type=geo%20location&city=B
angalore
--------------------------24722865315731345513634707295
Content-Disposition: form-data; name="rl"


--------------------------24722865315731345513634707295
```

Content-Disposition: form-data; name="cd[Meta]"

{"title":"Best Dermatologists In J.c Nagar, Bangalore - Instant Appointment Booking, View Fees, Feedbacks | Practo","meta:description":"Best Dermatologists in J.c Nagar, Bangalore. Book Doctor's Appointment Online, View Fees, User feedbacks, Address & Phone Numbers of Dermatologists in J.c Nagar, Bangalore | Practo"}

https://**googleads.g.doubleclick.net**/pagead/viewthroughconversion/942004674/?random=1675768765878&cv=11&fst=1675768765878&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=1050&hn=www.googleadservices.com&frm=0&url=https://www.practo.com/appointment/**madan-2-hair-transplant-surgeon**/561807/book?type=abs&doctor_id=561807&specialization=**Dermatologist**&**appointment_time=2023-02-08%2016%3A00%3A00**&appointment_token=NTYxODA3UHJhY3RpY2VEb2N0b3I%3D&prepaid=true&**amount=750**&discount=0&discount_type=PERCENTAGE&cancellation_fee=50&prepaid_type=payment_optional&cancellation_charge=50&cancellation_fee_type=ABSOLUTE&plus_discount=0&total_amount_to_pay=750&disclaimers%5B0%5D%5Btext%5D=Free%20cancellation%20and%20rescheduling%20is%20avail&ref=https://www.practo.com/bangalore/doctor/madan-2-hair-transplant-surgeon?practice_id=1134625&specialization=Dermatologist&referrer=doctor_listing&tiba=Book an appointment | Practo&auid=1725535375.1675748007&data=event=gtag.config&rfmt=3&fmt=4

https://www.**google-analytics.com**/j/collect?v=1&_v=j99&a=994227509&t=pageview&_s=1&dl=https://www.practo.com/appointment/**madan-2-hair-transplant-surgeon**/561807/book?type=abs&doctor_id=561807&specialization=**Dermatologist**&**appointment_time=2023-02-08%2016%3A00%3A00**&appointment_token=NTYxODA3UHJhY3RpY2VEb2N0b3I%3D&prepaid=true&**amount=750**&discount=0&discount_type=PERCENTAGE&cancellation_fee=50&prepaid_type=payment_optional&cancellation_charge=50&cancellation_fee_type=ABSOLUTE&plus_discount=0&total_amount_to_pay=750&disclaimers%5B0%5D%5Btext%5D=Free%20cancellation%20and%20rescheduling%20is%20available%20till%202%20hours%20before%20the%20appointment%20time.&disclaimers%5B0%5D%5Bposition%5D=1&disclaimers%5B1%5D%5Btext%5D=After%20the%20stipulated%20time%2C%20rescheduling%

20will%20not%20be%20available%2C%20and%20a%20fee%20of%2050%20INR%2
0will%20be%20applicable%20for%20cancellations%20or%20no-
shows.&disclaimers%5B1%5D%5Bposition%5D=2&disclaimers_v2%5B0%5D%5B
text%5D=If%20you%20wish%20to%20cancel%20or%20reschedule%2C%20you%2
0can%20do%20it%20upto%202%20hours%20before%20the%20appointment%20t
ime&disclaimers_v2%5B0%5D%5Bbold_text%5D%5B0%5D=2%20hours%20before
&disclaimers_v2%5B0%5D%5Bposition%5D=1&disclaimers_v2%5B0%5D%5Bico
n%5D=clock&disclaimers_v2%5B1%5D%5Btext%5D=You%20will%20be%20charg
ed%20Rs%2050%20cancellation%20fee%20if%20you%20cancel%20within%202
%20hours%20of%20your%20appointment%20time%20or%20absent&disclaimer
s_v2%5B1%5D%5Bbold_text%5D%5B0%5D=Rs%2050%20cancellation%20fee&dis
claimers_v2%5B1%5D%5Bposition%5D=2&disclaimers_v2%5B1%5D%5Bicon%5D
=rupee&disclaimers_v2%5B2%5D%5Btext%5D=However%2C%20in%20the%20eve
nt%20of%20doctor%20no%20show%2C%20you%20will%20not%20be%20charged%
20a%20cancellation%20fee&disclaimers_v2%5B2%5D%5Bposition%5D=3&dis
claimers_v2%5B2%5D%5Bicon%5D=smiley&ul=en-us&de=UTF-8&dt=Book an
appointment | Practo&sd=30-
bit&sr=1680x1050&vp=1401x440&je=0&_u=AACAAEIJAAAAACAAI~&jid=171898
206&gjid=1813082516&cid=1055410137.1675748022&tid=UA-18841050-
11&_gid=360759549.1675748022&_r=1&_slc=1&z=247300236

https://www.google.com/pagead/1p-user-
list/942004674/?random=1675768765878&random=647617167&cv=11&fst=16
75767600000&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=10
50&frm=0&url=https://www.practo.com/appointment/**madan-2-hair-
transplant-
surgeon**/561807/book?type=abs&doctor_id=561807&specialization=**Derma
tologist**&appointment_time=2023-02-
08%2016%3A00%3A00&appointment_token=NTYxODA3UHJhY3RpY2VEb2N0b3I%3D
&prepaid=true&**amount=750**&discount=0&discount_type=PERCENTAGE&cance
llation_fee=50&prepaid_type=payment_optional&cancellation_charge=5
0&cancellation_fee_type=ABSOLUTE&plus_discount=0&total_amount_to_p
ay=750&disclaimers%5B0%5D%5Btext%5D=Free%20cancellation%20and%20re
scheduling%20is%20avail&ref=https://www.practo.com/bangalore/docto
r/madan-2-hair-transplant-
surgeon?practice_id=1134625&specialization=Dermatologist&referrer=
doctor_listing&tiba=Book an appointment |
Practo&data=event=gtag.config&fmt=3&is_vtc=1&rmt_tld=0&ipr=y

https://www.google.co.in/pagead/1p-user-
list/942004674/?random=1675768765878&random=647617167&cv=11&fst=16

75767600000&bg=ffffff&guid=ON&async=1&gtm=45be3210&u_w=1680&u_h=10
50&frm=0&url=https://www.practo.com/appointment/**madan-2-hair-**
transplant-
surgeon/561807/book?type=abs&doctor_id=561807&specialization=**Derma**
tologist&**appointment_time**=2023-02-
08%2016%3A00%3A00&appointment_token=NTYxODA3UHJhY3RpcY2VEb2N0b3I%3D
&prepaid=true&**amount=750**&discount=0&discount_type=PERCENTAGE&cance
llation_fee=50&prepaid_type=payment_optional&cancellation_charge=5
0&cancellation_fee_type=ABSOLUTE&plus_discount=0&total_amount_to_p
ay=750&disclaimers%5B0%5D%5Btext%5D=Free%20cancellation%20and%20re
scheduling%20is%20avail&ref=https://www.practo.com/bangalore/docto
r/madan-2-hair-transplant-
surgeon?practice_id=1134625&specialization=Dermatologist&referrer=
doctor_listing&tiba=Book an appointment |
Practo&data=event=gtag.config&fmt=3&is_vtc=1&rmt_tld=1&ipr=y

URL: https://www.**facebook.com**/tr/

Request Body (truncated for brevity):

https://www.practo.com/appointment/**madan-2-hair-transplant-**
surgeon/561807/book?type=abs&doctor_id=561807&specialization=**Derma**
tologist&appointment_time=**2023-02-**
08%2016%3A00%3A00&appointment_token=NTYxODA3UHJhY3RpcY2VEb2N0b3I%3D
&prepaid=true&**amount=750**&discount=0&discount_type=PERCENTAGE&cance
llation_fee=50&prepaid_type=payment_optional&cancellation_charge=5
0&cancellation_fee_type=ABSOLUTE&plus_discount=0&total_amount_to_p
ay=750&disclaimers%5B0%5D%5Btext%5D=Free%20cancellation%20and%20re
scheduling%20is%20available%20till%202%20hours%20before%20the%20ap
pointment%20time.&disclaimers%5B0%5D%5Bposition%5D=1&disclaimers%5
B1%5D%5Btext%5D=After%20the%20stipulated%20time%2C%20rescheduling%
20will%20not%20be%20available%2C%20and%20a%20fee%20of%2050%20INR%2
0will%20be%20applicable%20for%20cancellations%20or%20no-
shows.&disclaimers%5B1%5D%5Bposition%5D=2&disclaimers_v2%5B0%5D%5B
text%5D=If%20you%20wish%20to%20cancel%20or%20reschedule%2C%20you%2
0can%20do%20it%20upto%202%20hours%20before%20the%20appointment%20t
ime&disclaimers_v2%5B0%5D%5Bbold_text%5D%5B0%5D=2%20hours%20before
&disclaimers_v2%5B0%5D%5Bposition%5D=1&disclaimers_v2%5B0%5D%5Bico
n%5D=clock&disclaimers_v2%5B1%5D%5Btext%5D=You%20will%20be%20charg
ed%20Rs%2050%20cancellation%20fee%20if%20you%20cancel%20within%202
%20hours%20of%20your%20appointment%20time%20or%20absent&disclaimer

```
s_v2%5B1%5D%5Bbold_text%5D%5B0%5D=Rs%2050%20cancellation%20fee&dis
claimers_v2%5B1%5D%5Bposition%5D=2&disclaimers_v2%5B1%5D%5Bicon%5D
=rupee&disclaimers_v2%5B2%5D%5Btext%5D=However%2C%20in%20the%20eve
nt%20of%20doctor%20no%20show%2C%20you%20will%20not%20be%20charged%
20a%20cancellation%20fee&disclaimers_v2%5B2%5D%5Bposition%5D=3&dis
claimers_v2%5B2%5D%5Bicon%5D=smiley
--------------------------469023435122448401720701552338
Content-Disposition: form-data; name="rl"

https://www.practo.com/bangalore/doctor/madan-2-hair-transplant-
surgeon?practice_id=1134625&specialization=Dermatologist&referrer=
doctor_listing
--------------------------469023435122448401720701552338
Content-Disposition: form-data; name="if"
```

Feature: **Medicines**

This page allows users to find medications and purchase them

The **name of the medication that a user selects** is shared with the following:

- practo.my.salesforce.com
- google-analytics.com
- securepubads.g.doubleclick.net

```
https://practo.my.salesforce.com/embeddedservice/5.0/esw.html?par
ent=https://www.practo.com/health-products/my-dr-pain-relief-oil-
8440/p
```

```
https://www.google-
analytics.com/j/collect?v=1&_v=j99&a=844208891&t=pageview&_s=1&dl=
https://www.practo.com/health-products/my-dr-pain-relief-oil-
8440/p&dp=https:www.practo.com/health-products/my-dr-pain-relief-
oil-8440/p&ul=en-us&de=UTF-8&dt=My Dr. Herbals Health Products My
Dr. Pain Relief Oil - Buy Online at Best Price in India |
Practo&sd=30-
bit&sr=1680x1050&vp=1386x440&je=0&_u=AACAAEABAAAAACAAI~&jid=652080
06&gjid=1507361246&cid=1055410137.1675748022&tid=UA-18841050-
46&_gid=360759549.1675748022&_r=1&_slc=1&cd2=1&z=189527083
```

https://www.**google-analytics.com**/j/collect?v=1&_v=j99&a=844208891&t=pageview&_s=1&dl=https://www.practo.com/health-products/my-dr-pain-relief-oil-8440/p&dp=https:www.practo.com/health-products/my-dr-pain-relief-oil-8440/p&ul=en-us&de=UTF-8&dt=**My Dr. Herbals Health Products My Dr. Pain Relief Oil** - Buy Online at Best Price in India | Practo&sd=30-bit&sr=1680x1050&vp=1386x440&je=0&_u=AACAAEABAAAAACAAI~&jid=1502470149&gjid=701159384&cid=1055410137.1675748022&tid=UA-18841050-11&_gid=360759549.1675748022&_r=1&_slc=1&z=543740505

https://**securepubads.g.doubleclick.net**/gampad/ads?pvsid=889489836409581&correlator=2615030956327935&adsid=ChAIgIqInwYQ8Imc1q2k1pQbEi8ArTu-E_ibUGdX8xc8dvqqsbJLdfWAGPZ0PiUKKbd8xZihfI03xGSIx5i0OgkWvw&jar=2023-02-07-06&eid=31072029,31071662&output=ldjh&gdfp_req=1&vrg=2023020201&ptt=17&impl=fifs&iu_parts=21830643467,UTM_728x90_Practopedia&enc_prev_ius=/0/1&prev_iu_szs=728x90&ifi=1&adks=4233900796&sfv=1-0-40&cust_params=practo_property=practopedia&sc=1&cookie=ID=09fa582610bf901a:T=1675752172:S=ALNI_MbEA2Tq_DZG57G8fIyO05C88HEtVA&gpic=UID=00000bb767cbe4dc:T=1675752172:RT=1675752172:S=ALNI_MaDc_9uboaNKq0HCPd2bT5Hw63tSg&abxe=1&dt=1675770583249&lmt=1675770583&dlt=1675770580309&idt=2736&adxs=575&adys=423&biw=1386&bih=440&scr_x=0&scr_y=0&btvi=0&ucis=1&oid=2&color_bg=#FFFFFF&color_border=#000000&u_his=1&u_h=1050&u_w=1680&u_ah=1025&u_aw=1680&u_cd=30&u_sd=2&u_tz=330&bc=31&nvt=2&url=https://www.practo.com/health-products/**my-dr-pain-relief-oil**-8440/p&ref=https://www.practo.com/health-products/pain-relief/l&frm=20&vis=1&psz=688x110&msz=688x0&fws=0&ohw=0&ga_vid=1055410137.1675748022&ga_sid=1675770583&ga_hid=844208891&ga_fc=true

Feature: **Book a test**

Allows the user to book medical diagnostic tests.

The **name of the chosen diagnostic test** is shared with the following third-parties:

- google-analytics.com
- facebook.com
- googleads.g.doubleclick.net
- google.com/pagead
- google.co.in/pagead

When the user attempts to book a test, their **name and phone number** is shared with the following:

- google-analytics.com

```
https://www.google-
analytics.com/collect?v=1&_v=j99&a=1046859292&t=pageview&_s=1&dl=h
ttps://www.practo.com/tests/thyroid-profile-total-
blood/p?city=bangalore&ul=en-us&de=UTF-8&dt=Blood Tests | Book
```

Diagnostic Tests from Home at Best Prices | Practo&sd=30-
bit&sr=1920x1080&vp=1386x440&je=0&_u=SACAAEABAAAAACAAI~&jid=&gjid=
&cid=1740253462.1675832122&tid=UA-18841050-
47&_gid=1133244919.1675832122&gtm=45He3260n815QLXKJX&z=1553522846

https://**googleads.g.doubleclick.net**/pagead/viewthroughconversion/
788798787/?random=1675832149175&cv=11&fst=1675832149175&bg=ffffff&
guid=ON&async=1&gtm=45He3260&u_w=1920&u_h=1080&hn=www.googleadserv
ices.com&frm=0&url=https://www.practo.com/tests/**thyroid-profile-
total-
blood**/p?city=bangalore&ref=https://www.practo.com/&tiba=Blood
Tests | Book Diagnostic Tests from Home at Best Prices |
Practo&auid=966568112.1675832115&rfmt=3&fmt=4

https://www.**google.com**/pagead/1p-user-
list/788798787/?random=1675832149175&random=1567332236&cv=11&fst=1
675828800000&bg=ffffff&guid=ON&async=1&gtm=45He3260&u_w=1920&u_h=1
080&frm=0&url=https://www.practo.com/tests/**thyroid-profile-total-
blood**/p?city=bangalore&ref=https://www.practo.com/&tiba=Blood
Tests | Book Diagnostic Tests from Home at Best Prices |
Practo&fmt=3&is_vtc=1&rmt_tld=0&ipr=y

https://www.**google.co.in**/pagead/1p-user-
list/788798787/?random=1675832149175&random=1567332236&cv=11&fst=1
675828800000&bg=ffffff&guid=ON&async=1&gtm=45He3260&u_w=1920&u_h=1
080&frm=0&url=https://www.practo.com/tests/**thyroid-profile-total-
blood**/p?city=bangalore&ref=https://www.practo.com/&tiba=Blood
Tests | Book Diagnostic Tests from Home at Best Prices |
Practo&fmt=3&is_vtc=1&rmt_tld=1&ipr=y

https://www.**facebook.com**/tr/?id=296210344505268&ev=AddToCart&dl=h
ttps://www.practo.com/tests/thyroid-profile-total-
blood/p?city=bangalore&rl=https://www.practo.com/&if=false&ts=1675
832177697&cd[value]=400&cd[currency]=INR&cd[content_name]=[""]&cd[
content_category]=HOME_SAMPLE&cd[content_ids]=[1056160]&cd[content
s]=[{"name":"","type":"pathology","id":1056160,**"price":400**,"master
_test_slug":"**thyroid-profile-total-
blood**","homeSampleAvailable":true,"homeSampleChosen":true,"profile
s":null,"tag":null,"masterName":"**Thyroid Profile Total
Blood**","highlight":{"html":"","inline_icon":""}}]&cd[num_items]=1&
sw=1920&sh=1080&udff[ct]=c5508df96097559eba53e0301aaf688926e0c3c6c

5568883defcc6823b6c9e3f&v=2.9.95&r=stable&ec=1&o=2078&fbp=fb.1.167
5832122540.1725160604&it=1675832143160&coo=false&tm=1&rqm=GET

https://www.**google-
analytics.com**/j/collect?v=1&_v=j99&a=201655671&t=pageview&_s=1&dl=
https://accounts.practo.com/request_otp_registration?source=consul
t_appointment&**mobile=9876452627&name=test**&intent=sapphire&view_typ
e=modal&cta_text=Verify+OTP&ul=en-us&de=UTF-8&dt=Practo
Accounts&sd=30-
bit&sr=1920x1080&vp=&je=0&_u=AACAAEABAAAAACAAI~&jid=&gjid=&cid=174
0253462.1675832122&tid=UA-18841050-
24&_gid=1133244919.1675832122&_slc=1&z=451647885

Other researched apps

In addition to those we reported on, our partners at CIS also investigated the following apps and websites, their findings are below:

7. MediBuddy

Medibuddy is a health app that allows users to book consultations with doctors, order medications, and book lab tests.

This is an analysis for the non-password protected features of the website because the mobile app requires logging in with a phone number to access features.

There is an existing Exodus report for the mobile app: https://reports.exodus-privacy.eu.org/en/reports/in.medibuddy/latest/

7.1 Name and version of the App

Website: https://www.medibuddy.in/
Date of analysis: February 2023

7.2 Trackers

(Identified by Firefox)

- https://js-agent.newrelic.com
- https://bam.eu01.nr-data.net
- https://www.google-analytics.com
- https://cdn.branch.io
- https://connect.facebook.net
- https://static.hotjar.com
- https://adservice.google.com
- https://googleads.g.doubleclick.net
- https://script.hotjar.com
- https://api2.branch.io
- https://vars.hotjar.com
- https://www.facebook.com
- https://stats.g.doubleclick.net

7.3 Permissions requested

- Location data - pincode
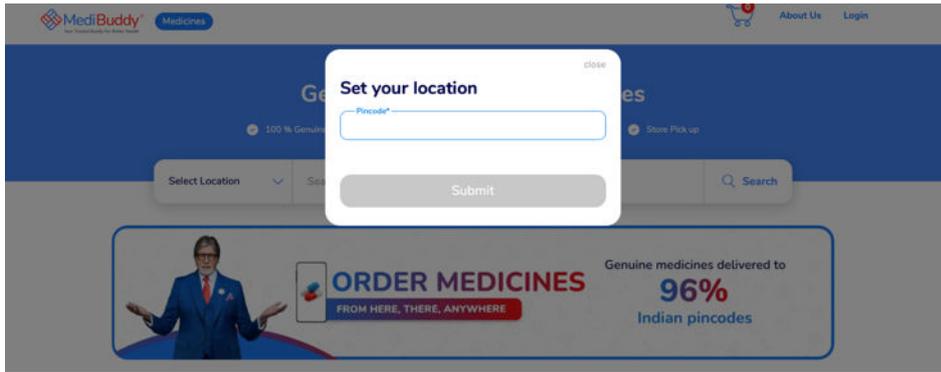
7.4 Data collection consent banner

No consent banner was presented. There is a privacy policy[5] linked in the footer of all webpages surveyed.

7.5 Main domain to where the data is shared

https://www.medibuddy.in/

7.6 Domains to which advertising ID is sent.

N/A

7.7 Unexpected data sharing

*Feature : **Book Health Check banner***

The landing page has banners that promote services from different parts of the website and provides discounts. Clicking on the banner for "Book a Health Check" identifies which banner has been clicked and sends this information to Google Analytics.

---

[5] https://www.medibuddy.in/privacy-policy

*Feature**: Medicine Finder***

This feature of the website allows users to search for a medical condition to select a medicine or, if already known, search for a specific drug for home delivery.

The URL which includes **user location** (either as a pin code or as the city selected) and **user behaviour** i.e., user's search history comprising the medicine or pharmacy related information that the user is seeking is transferred to the following entities:

- www.facebook.com
- Googleads.g.doubleclick.net

Feature: **Lab Tests and Packages; Vaccination**

The web app allows users to book a lab based testing service for which the sample is collected from the user's home. And, the Vaccination page allows users to book a vaccination.

The following entities get the URL when these pages are visited. The url contains **service information** which can be used to infer user browsing behaviour (example: medibuddy.in/vaccinationLanding) :

- Bam.eu01.nr-data.net
- Q.quora.com
- Googleads.g.doubleclick.net
- Facebook.com

Miscellaneous findings :

- For all features analysed, information is also sent to https://wzrkt.com/, however, the message is obfuscated, thus it is hard to identify what is being sent. See Appendix D for a sample request.

- There is also an ID in the attributes for facebook.com that is the same for the user across all the pages on the website (attribute fbp) which might be used to identify browsing behaviour across the domain.

8. Pharmeasy

8.1 Name and version of the App
Website: pharmeasy.in/
Date of analysis: February 2023

8.2 Trackers

(identified by Firefox)

- https://adservice.google.com
- https://www.google-analytics.com
- https://login-ds.dotomi.com
- https://stats.g.doubleclick.net
- https://tags.bluekai.com
- https://us-u.openx.net
- https://simage2.pubmatic.com
- https://login.dotomi.com

- https://connect.facebook.net
- https://www.facebook.com

8.3 Permissions requested
None

8.4 Data collection consent banner
None. There is a link to a privacy policy on the footer of every page.

8.5 Main domain to where the data is sent
- *https://pharmeasy.in*
- *https://assets.pharmeasy.in*

8.6 Domains to which advertising ID is sent.
N/A

8.7 Unexpected data sharing

*Feature: **Buy medicine***

This page allows users to search for and purchase medications. The **search term** (example: paracetamol) and **chosen medication** (example: Dolo 650) are shared with the following entities:

- analytics.google.com
- googleads.g.doubleclick.net
- google.com/pagead
- google.co.in/pagead
- login-ds.dotomi.com
- google-analytics.com
- facebook.com

Additionally, an "**Add to cart" event** is sent to the following entities when a medication is added to the cart for purchase:
- googleads.g.doubleclick.net
- facebook.com
- google-analytics.com
- google.com/pagead
- google.co.in/pagead

The **quantity of the medication** being purchased is shared with the following:
- facebook.com
- google-analytics.com

*Feature: **Book lab tests***

This page allows users to book medical diagnostic tests. The **name of the chosen test** (example: diabetes care) is shared with the following entities:

- analytics.google.com
- googleads.g.doubleclick.net
- google.com/pagead
- google.co.in/pagead
- login-ds.dotomi.com
- google-analytics.com
- facebook.com

The **cost of the test** is shared with the following:

- facebook.com

*Feature: **Health blog***

The health blog shows users health related blogs. The **title of the blog post** being viewed (example: 10 Natural Ways To Check Pregnancy At Home) is shared with the following:

- googleads.g.doubleclick.net
- google-analytics.com

*Feature: **Surgeries***

The surgeries page shows users information about surgeries along with a list of specialists.
The **name of the chosen surgery** is shared with the following entities:
- googleads.g.doubleclick.net
- google.com/pagead
- google.co.in/pagead
- google-analytics.com
- Facebook.com

9. Sirona

9.1 Name and version of the App

App Name: Sirona
Date of analysis: April 2023

9.2 Trackers

- Adobe Experience Cloud
- CleverTap: analytics, profiling, location
- Facebook Analytics: analytics
- Facebook Login: identification
- Facebook Share
- Google CrashLytics: analytics
- Snowplow: analytics

Source: https://reports.exodus-privacy.eu.org/en/reports/com.thesirona/latest/

9.3 Permissions requested

This app requests 22 permissions, including approximate location, calendar, and the ability to update files on the device storage

Source: *https://reports.exodus-privacy.eu.org/en/reports/com.thesirona/latest/*

9.4 Data collection consent banner

There is no consent banner or privacy policy presented until the login screen which comes up for the period tracking and payment features of the app.

Prior to this, users can browse the shop of the Sirona app for products. Browsing the shop for available products is not protected by a phone number.

9.5 Main domain to where the data is sent

- acl.mgapis.com
- Files.thesirona.com - *this is where the website is drawing images etc from*

9.6 Domains to which advertising ID is sent.

Not available

9.7 Unexpected data sharing

Feature: **Navigating to a product**

The app has a shop that sells menstrual and feminine hygiene products that users can browse before reaching the password protected features of the app. A user can click on a menu category to bring up all the products being sold by Sirona in that category.
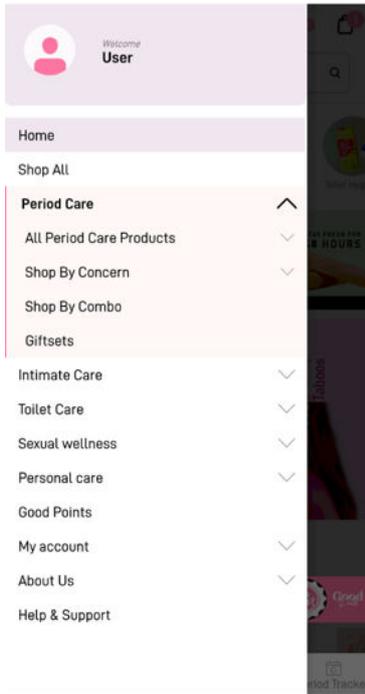
Clicking on a menu category, for example 'Period Care', shares the name of the category clicked with the following:

- myglamm.data.adobedc.net

Feature: **A product is selected**
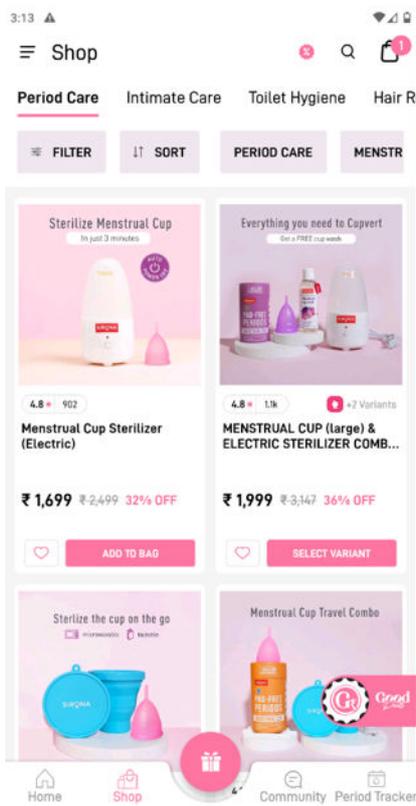
Once a product is selected, the following trackers get **the name of the product** example 'menstrual cup steriliser (electric)':
- api2.branch.io
- peve.myglamm.com/com.snowplow/tp2
  - Product info encoded to base 64
- jnn-pa.googleapis.com/$rpc/google.internal.waav1.Waa/create
- graph.facebook.com

The following get **the cost of the product** selected in addition to the name:
- api2.branch.io
- graph.facebook.com
- peve.myglamm.com/com.snowplow/tp2

Feature: **add to cart**

When a product is added to cart, the following trackers get the event and item name or code
- peve.myglamm.com/com.snowplow/tp2
- graph.facebook.com

Feature: Log in

The intent to log in is picked up the following

- Myglamm.data.adobedc.net
  - The carousel that was clicked: "carousel_3_period tracker_7"
- graph.facebook.com
- firebaseremoteconfig-pa.googleapis.com