

App	Date/time of install	Installed by user
com.miui.screenrecorder	2008-12-31 16:00:00.000	FALSE
com.skype.raider	2020-03-19 06:00:06.736	TRUE
com.android.cts.priv.ctsshim	2008-12-31 16:00:00.000	FALSE
com.qualcomm.qti.qms.service.telemetry	2008-12-31 16:00:00.000	FALSE
com.google.android.youtube	2008-12-31 16:00:00.000	FALSE
com.qualcomm.qti.perfdump	2008-12-31 16:00:00.000	FALSE
com.android.internal.display.cutout.emulation.corner	2008-12-31 16:00:00.000	FALSE
com.google.android.ext.services	2008-12-31 16:00:00.000	FALSE
com.android.internal.display.cutout.emulation.double	2008-12-31 16:00:00.000	FALSE
com.android.providers.telephony	2008-12-31 16:00:00.000	FALSE
com.miui.powerkeeper	2008-12-31 16:00:00.000	FALSE
com.goodix.fingerprint	2008-12-31 16:00:00.000	FALSE
com.xiaomi.miplay_client	2008-12-31 16:00:00.000	FALSE
com.google.android.googlequicksearchbox	2008-12-31 16:00:00.000	FALSE
com.fecredit.RoboLending	2020-04-08 09:10:11.289	TRUE
cn.wps.xiaomi.abroad.lite	1971-10-31 13:10:39.000	FALSE
com.android.providers.calendar	2008-12-31 16:00:00.000	FALSE
com.zing.zalo	2019-01-01 15:42:07.059	TRUE
com.android.providers.media	2008-12-31 16:00:00.000	FALSE
com.milink.service	2008-12-31 16:00:00.000	FALSE
com.google.android.onetimeinitializer	2008-12-31 16:00:00.000	FALSE
com.google.android.ext.shared	2008-12-31 16:00:00.000	FALSE
com.xiaomi.powerchecker	2008-12-31 16:00:00.000	FALSE
com.vttm.vietteldiscovery	2019-01-04 11:49:48.798	TRUE
com.xiaomi.account	2008-12-31 16:00:00.000	FALSE
com.android.wallpapercropper	2008-12-31 16:00:00.000	FALSE
com.bsp.catchlog	2008-12-31 16:00:00.000	FALSE
com.quicinc.cne.CNEService	2008-12-31 16:00:00.000	FALSE
com.xiaomi.mi_connect_service	2008-12-31 16:00:00.000	FALSE
…(more apps not shown)…		

Figure 4A

App	Date/time of install	Installed by user
com.skype.raider	2020-03-19 06:00:06.736	TRUE
com.fecredit.RoboLending	2020-04-08 09:10:11.289	TRUE
com.zing.zalo	2019-01-01 15:42:07.059	TRUE
com.vttm.vietteldiscovery	2019-01-04 11:49:48.798	TRUE
com.pizzahut.app.vn	2020-02-23 06:06:30.430	TRUE
com.whatsapp	2020-03-19 05:55:18.243	TRUE
org.zwanoo.android.speedtest	2020-02-11 08:03:38.701	TRUE
vms.com.vn.mymobifone	2020-02-11 07:25:57.322	TRUE
com.barcodescanner.qrcodesub2	2020-03-27 03:55:30.813	TRUE
com.airvisual	2019-02-01 08:26:30.280	TRUE
com.acb.lifestyle	2020-03-11 07:50:39.811	TRUE
com.ovelin.guitartuna	2019-01-04 15:20:07.549	TRUE
com.microsoft.mobile.polymer	2019-11-14 23:03:09.099	TRUE
com.facebook.katana	2019-01-01 15:41:33.345	TRUE
io.silvrr.installment	2019-11-19 08:35:10.494	TRUE
com.facebook.orca	2020-01-01 14:44:54.920	TRUE
com.eumlab.android.prometronome	2019-06-25 14:33:20.928	TRUE
com.garena.game.kgvn	2019-07-16 01:55:33.088	TRUE
com.linkedin.android	2019-11-30 00:33:37.950	TRUE
com.google.android.play.games	2019-01-18 17:10:44.141	TRUE
cn.wps.moffice_eng	2019-01-01 15:36:58.190	TRUE

412 414 416

Figure 4B

App	Date/time of install	Installed by user
cn.wps.moffice_eng	2019-01-01 15:36:58.190	TRUE
com.facebook.katana	2019-01-01 15:41:33.345	TRUE
com.zing.zalo	2019-01-01 15:42:07.059	TRUE
com.vttm.vietteldiscovery	2019-01-04 11:49:48.798	TRUE
com.ovelin.guitartuna	2019-01-04 15:20:07.549	TRUE
com.google.android.play.games	2019-01-18 17:10:44.141	TRUE
com.airvisual	2019-02-01 08:26:30.280	TRUE
com.eumlab.android.prometronome	2019-06-25 14:33:20.928	TRUE
com.garena.game.kgvn	2019-07-16 01:55:33.088	TRUE
com.microsoft.mobile.polymer	2019-11-14 23:03:09.099	TRUE
io.silvrr.installment	2019-11-19 08:35:10.494	TRUE
com.linkedin.android	2019-11-30 00:33:37.950	TRUE
com.facebook.orca	2020-01-01 14:44:54.920	TRUE
vms.com.vn.mymobifone	2020-02-11 07:25:57.322	TRUE
org.zwanoo.android.speedtest	2020-02-11 08:03:38.701	TRUE
com.pizzahut.app.vn	2020-02-23 06:06:30.430	TRUE
com.acb.lifestyle	2020-03-11 07:50:39.811	TRUE
com.whatsapp	2020-03-19 05:55:18.243	TRUE
com.skype.raider	2020-03-19 06:00:06.736	TRUE
com.barcodescanner.qrcodesub2	2020-03-27 03:55:30.813	TRUE
com.fecredit.RoboLending	2020-04-08 09:10:11.289	TRUE

422 424 426

Figure 4C

App	Date/time of install	Installed by user
cn.wps.moffice_eng	2019-01-01 15:36:58.190	TRUE
com.facebook.katana	2019-01-01 15:41:33.345	TRUE
com.zing.zalo	2019-01-01 15:42:07.059	TRUE
com.vttm.vietteldiscovery	2019-01-04 11:49:48.798	TRUE
com.ovelin.guitartuna	2019-01-04 15:20:07.549	TRUE

432 434 436

Figure 4D

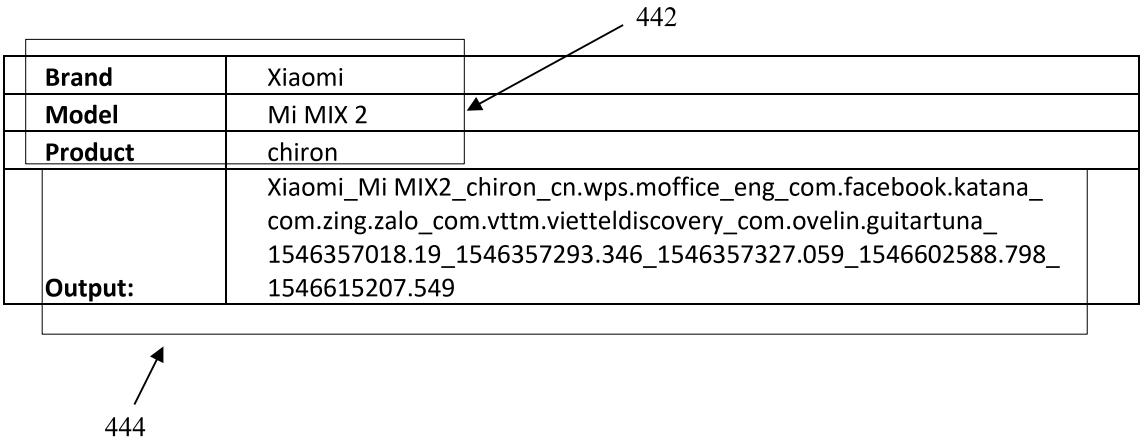

Figure 4E

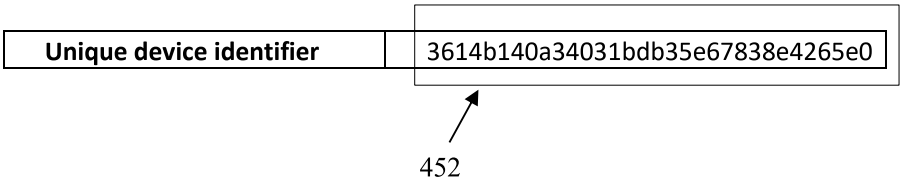

Figure 4F