# CodeSonar Analysis Report

generated by Administrator on Wed Aug 23 15:52:33 2017

for analysis encryption analysis 1

# Summary

## Table 1: encryption analysis 1 Summary

| Active Warnings | File Count | Project Name | Time Started | Time Finished | Machine |
| --- | --- | --- | --- | --- | --- |
| 183 | 283 | encryption | Tue Jul 11 16:04:48 2017 | Tue Jul 11 16:07:52 2017 | eduECFA.kent.ac.uk |

# Warnings

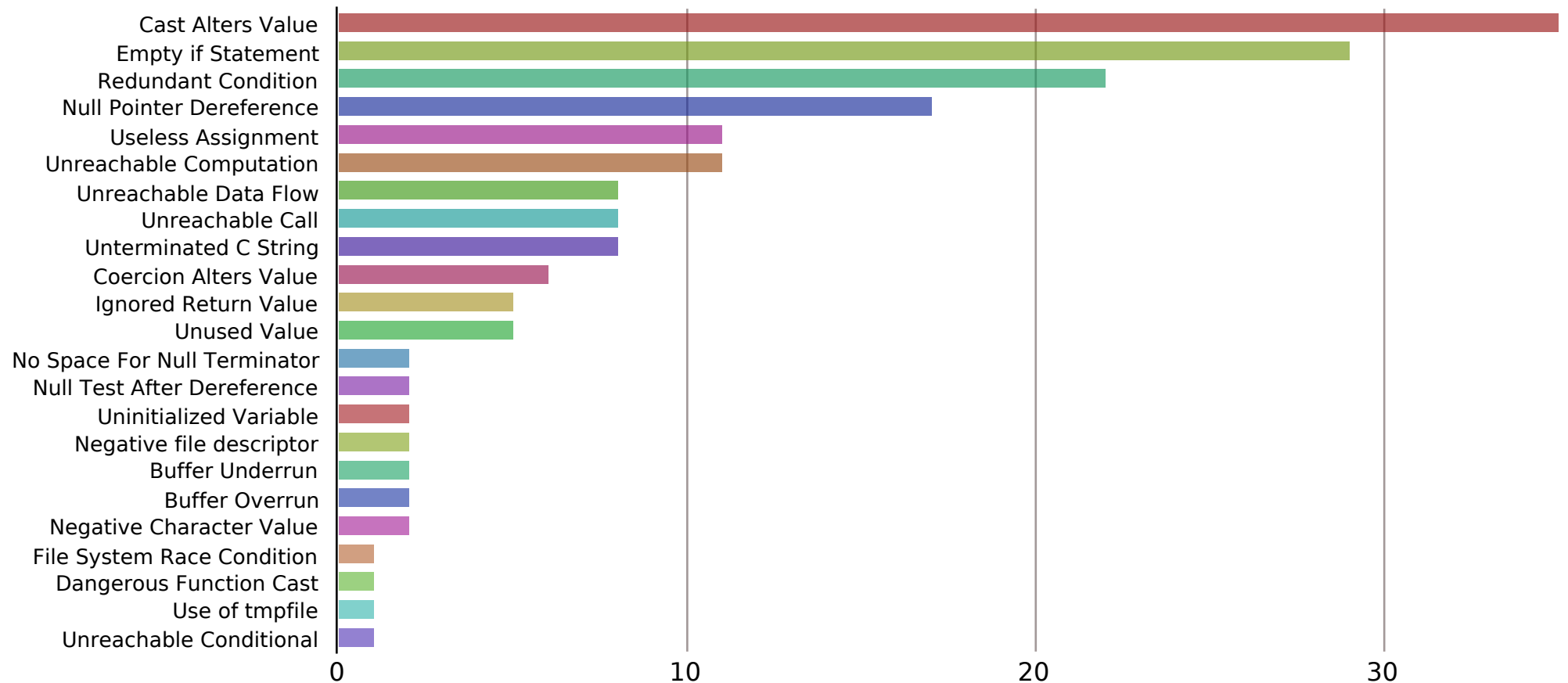## Figure 1: encryption analysis 1, Warnings by Class

## Table 2: encryption analysis 1, Warnings by Class

| Warning Class | Active Warnings |
| --- | --- |
| Cast Alters Value | 35 |
| Empty if Statement | 29 |
| Redundant Condition | 22 |
| Null Pointer Dereference | 17 |
| Unreachable Computation | 11 |
| Useless Assignment | 11 |
| Unterminated C String | 8 |
| Unreachable Data Flow | 8 |
| Unreachable Call | 8 |
| Coercion Alters Value | 6 |
| Unused Value | 5 |
| Ignored Return Value | 5 |
| Uninitialized Variable | 2 |
| Null Test After Dereference | 2 |
| No Space For Null Terminator | 2 |
| Buffer Overrun | 2 |

| Warning Class | Active Warnings |
|---|---|
| Negative Character Value | 2 |
| Buffer Underrun | 2 |
| Negative file descriptor | 2 |
| Use of tmpfile | 1 |
| File System Race Condition | 1 |
| Dangerous Function Cast | 1 |
| Unreachable Conditional | 1 |

## Table 3: encryption analysis 1, Warnings by File

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| tapdev6.c | 21 | 425 | C |
| resolv.c | 21 | 1521 | C |
| rpl-dag.c | 16 | 1631 | C |
| rpl-icmp6.c | 14 | 1367 | C |
| eeprom.c | 6 | 166 | C |
| framer-802154.c | 6 | 274 | C |
| rpl-ext-header.c | 6 | 665 | C |

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| websocket.c | 5 | 724 | C |
| uip-ds6.c | 5 | 716 | C |
| psock.c | 5 | 319 | C |
| uip6.c | 5 | 2362 | C |
| websocket-http-client.c | 4 | 347 | C |
| csma.c | 4 | 507 | C |
| tcpip.c | 4 | 849 | C |
| nbr-table.c | 4 | 483 | C |
| rpl.c | 3 | 355 | C |
| udp-socket.c | 3 | 199 | C |
| ctk.c | 3 | 1933 | C |
| rpl-dag-root.c | 3 | 268 | C |
| cfs-posix.c | 3 | 108 | C |
| phase.c | 3 | 252 | C |
| sicslowpan.c | 2 | 1806 | C |
| contiki-main.c | 2 | 314 | C |
| dhcpc.c | 2 | 431 | C |

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| nullrdc-noframer.c | 2 | 112 | C |
| uip-icmp6.c | 2 | 378 | C |
| rpl-timers.c | 2 | 497 | C |
| tcp-socket.c | 2 | 409 | C |
| ip64-addr.c | 2 | 123 | C |
| frame802154e-ie.c | 2 | 585 | C |
| rtimer.c | 2 | 108 | C |
| rpl-nbr-policy.c | 2 | 256 | C |
| rpl-of0.c | 2 | 238 | C |
| simple-udp.c | 1 | 183 | C |
| slip.c | 1 | 457 | C |
| ctk-filedialog.c | 1 | 177 | C |
| uip-ds6-nbr.c | 1 | 361 | C |
| tapdev-drv.c | 1 | 111 | C |
| sensors.c | 1 | 137 | C |
| frame802154.c | 1 | 623 | C |
| tests.c | 1 | 141 | C |

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| link-stats.c | 1 | 211 | C |
| ctimer.c | 1 | 175 | C |
| etimer.c | 1 | 272 | C |
| serial-line.c | 1 | 137 | C |
| random.c | 1 | 54 | C |
| ifft.c | 1 | 168 | C |
| uip-ds6-route.c | 1 | 721 | C |
| uip-nameserver.c | 0 | 236 | C |
| compower.c | 0 | 98 | C |
| slipdev.c | 0 | 203 | C |
| compower.h | 0 | 135 | C |
| pir-sensor.h | 0 | 12 | C |
| vib-sensor.h | 0 | 52 | C |
| cfs-posix-dir.c | 0 | 87 | C |
| slipdev.h | 0 | 87 | C |
| sensors.h | 0 | 72 | C |
| button-sensor.h | 0 | 12 | C |

| File | Active Warnings | Total Lines | Language |
| --- | --- | --- | --- |
| ringbufindex.h | 0 | 72 | C |
| sicslowpan.h | 0 | 327 | C |
| nullradio.c | 0 | 107 | C |
| eeprom.h | 0 | 116 | C |
| nullradio.h | 0 | 8 | C |
| vib-sensor.c | 0 | 73 | C |
| ctk-conio.c | 0 | 530 | C |
| button-sensor.c | 0 | 32 | C |
| slip.h | 0 | 86 | C |
| pir-sensor.c | 0 | 35 | C |
| rpl-mrhof.c | 0 | 316 | C |
| ringbuf.c | 0 | 123 | C |
| uip-split.h | 0 | 95 | C |
| me_tabs.c | 0 | 121 | C |
| petsciiconv.c | 0 | 119 | C |
| anti-replay.c | 0 | 115 | C |
| irq.c | 0 | 5 | C |

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| ccm-star.c | 0 | 177 | C |
| leds.c | 0 | 119 | C |
| watchdog.c | 0 | 63 | C |
| gcr.c | 0 | 162 | C |
| ctk-curses.c | 0 | 517 | C |
| linuxradio-drv.c | 0 | 210 | C |
| ctk-filedialog.h | 0 | 50 | C |
| arg.c | 0 | 133 | C |
| arg.h | 0 | 42 | C |
| uip-debug.c | 0 | 94 | C |
| linkaddr.c | 0 | 80 | C |
| ip64-addr.h | 0 | 63 | C |
| watchdog.h | 0 | 42 | C |
| net-debug.c | 0 | 65 | C |
| rtimer-arch.c | 0 | 92 | C |
| packetbuf.c | 0 | 254 | C |
| ccm-star.h | 0 | 82 | C |

| File | Active Warnings | Total Lines | Language |
|---|---|---|---|
| ccm-star-packetbuf.h | 0 | 48 | C |
| ccm-star-packetbuf.c | 0 | 82 | C |
| leds-arch.c | 0 | 60 | C |
| queuebuf.c | 0 | 473 | C |
| rpl-dag-root.h | 0 | 41 | C |
| uip-packetqueue.c | 0 | 86 | C |
| ctk-textentry-checkbox.c | 0 | 62 | C |
| leds.h | 0 | 98 | C |

(Showing 100 of 283 Files)

## Table 4: encryption analysis 1, Warning Instances

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 68 | Negative Character Value | ctk.c | textentry_input | 1255 | None | None |
| 68 | Negative Character Value | resolv.c | dns_name_isequal | 400 | None | None |
| 63 | Uninitialized Variable | frame802154.c | frame802154_check_dest_panid | 214 | None | None |
| 62 | Uninitialized Variable | uip-ds6-route.c | uip_ds6_route_lookup | 272 | None | None |
| 61 | No Space For Null Terminator | resolv.c | remove_trailing_dots | 1252 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 60 | Unterminated C String | resolv.c | resolv_set_hostname | 1095 | None | None |
| 60 | Unterminated C String | resolv.c | resolv_set_hostname | 1096 | None | None |
| 60 | Unterminated C String | resolv.c | resolv_set_hostname | 1097 | None | None |
| 60 | Negative file descriptor | tapdev6.c | tapdev_init_darwin_routes | 159 | None | None |
| 60 | Negative file descriptor | tapdev6.c | tapdev_init_darwin_routes | 188 | None | None |
| 59 | File System Race Condition | eeprom.c | eeprom_init | 82 | None | None |
| 59 | Unterminated C String | ctk-filedialog.c | ctk_filedialog_eventhandler | 148 | None | None |
| 58 | No Space For Null Terminator | websocket.c | parse_url | 143 | None | None |
| 58 | Unterminated C String | resolv.c | resolv_lookup | 1380 | None | None |
| 58 | Unterminated C String | resolv.c | resolv_query | 1287 | None | None |
| 58 | Unterminated C String | resolv.c | resolv_query | 1312 | None | None |
| 58 | Unterminated C String | resolv.c | resolv_query | 1319 | None | None |
| 54 | Buffer Overrun | uip-icmp6.c | uip_icmp6_error_output | 213 | None | None |
| 51 | Null Test After Dereference | frame802154e-ie.c | frame80215e_create_ie_tsch_channel_hopping_sequence | 303 | None | None |
| 51 | Null Test After Dereference | rpl-dag.c | rpl_print_neighbor_list | 110 | None | None |
| 49 | Null Pointer Dereference | tcpip.c | tcpip_uipcall | 792 | None | None |
| 48 | Coercion Alters Value | contiki-main.c | stdin_handle_fd | 135 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 48 | Null Pointer Dereference | rpl-icmp6.c | dao_input_storing | 667 | None | None |
| 48 | Null Pointer Dereference | resolv.c | process_thread_resolv_process | 1174 | None | None |
| 48 | Null Pointer Dereference | rpl-dag-root.c | rpl_dag_root_init_dag_immediately | 215 | None | None |
| 48 | Null Pointer Dereference | rpl-dag.c | rpl_add_dag | 1220 | None | None |
| 48 | Null Pointer Dereference | rpl-dag.c | rpl_process_dio | 1589 | None | None |
| 48 | Coercion Alters Value | csma.c | send_packet | 385 | None | None |
| 48 | Null Pointer Dereference | nbr-table.c | nbr_table_add_lladdr | 368 | None | None |
| 47 | Null Pointer Dereference | rpl.c | rpl_remove_routes_by_nexthop | 218 | None | None |
| 47 | Coercion Alters Value | websocket.c | websocket_open | 591 | None | None |
| 47 | Null Pointer Dereference | rpl-dag.c | rpl_print_neighbor_list | 113 | None | None |
| 47 | Null Pointer Dereference | rpl-dag.c | rpl_print_neighbor_list | 106 | None | None |
| 47 | Null Pointer Dereference | rpl-icmp6.c | dao_input_storing | 770 | None | None |
| 47 | Null Pointer Dereference | rpl-dag.c | rpl_get_any_dag | 1041 | None | None |
| 46 | Null Pointer Dereference | ctk.c | select_widget | 983 | None | None |
| 46 | Coercion Alters Value | uip6.c | uip_process | 1546 | None | None |
| 46 | Coercion Alters Value | tapdev6.c | tapdev_poll | 138 | None | None |
| 45 | Coercion Alters Value | ifft.c | ifft | 123 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 44 | Cast Alters Value | random.c | random_rand | 52 | None | None |
| 43 | Null Pointer Dereference | uip-icmp6.c | uip_icmp6_send | 281 | None | None |
| 43 | Cast Alters Value | uip-ds6.c | uip_ds6_compute_reachable_time | 712 | None | None |
| 42 | Cast Alters Value | rpl-dag-root.c | set_global_address | 153 | None | None |
| 42 | Cast Alters Value | rpl.c | rpl_link_neighbor_callback | 260 | None | None |
| 42 | Cast Alters Value | tcpip.c | udp_broadcast_new | 328 | None | None |
| 42 | Cast Alters Value | rpl-icmp6.c | dis_output | 268 | None | None |
| 42 | Cast Alters Value | rpl.c | rpl_init | 342 | None | None |
| 42 | Cast Alters Value | dhcpc.c | create_msg | 149 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_send | 397 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_cleanup_darwin_routes | 272 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_cleanup_darwin_routes | 280 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_cleanup_darwin_routes | 281 | None | None |
| 42 | Cast Alters Value | resolv.c | process_thread_resolv_process | 1174 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_cleanup_darwin_routes | 282 | None | None |
| 42 | Cast Alters Value | uip-ds6.c | uip_ds6_init | 118 | None | None |
| 42 | Cast Alters Value | resolv.c | mdns_write_announce_records | 522 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 42 | Cast Alters Value | resolv.c | process_thread_resolv_process | 1208 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_cleanup_darwin_routes | 283 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 169 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 175 | None | None |
| 42 | Cast Alters Value | resolv.c | newdata | 907 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 177 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 179 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 181 | None | None |
| 42 | Cast Alters Value | uip-ds6.c | uip_ds6_init | 127 | None | None |
| 42 | Cast Alters Value | uip-ds6.c | uip_ds6_init | 130 | None | None |
| 42 | Cast Alters Value | resolv.c | check_entries | 756 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 230 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 238 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 239 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 240 | None | None |
| 42 | Cast Alters Value | tapdev6.c | tapdev_init_darwin_routes | 241 | None | None |
| 42 | Cast Alters Value | rpl-icmp6.c | dio_output | 613 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 42 | Cast Alters Value | rpl-dag-root.c | rpl_dag_root_init_dag_immediately | 224 | None | None |
| 42 | Cast Alters Value | resolv.c | newdata | 1070 | None | None |
| 40 | Null Pointer Dereference | rpl-dag.c | rpl_select_dag | 806 | None | None |
| 40 | Null Pointer Dereference | rpl-dag.c | rpl_select_dag | 773 | None | None |
| 39 | Null Pointer Dereference | rpl-dag.c | rpl_select_dag | 764 | None | None |
| 39 | Buffer Underrun | nbr-table.c | remove_key | 195 | None | None |
| 38 | Dangerous Function Cast | uip-ds6-nbr.c | uip_ds6_neighbors_init | 79 | None | None |
| 34 | Buffer Overrun | sicslowpan.c | uncompress_addr | 611 | None | None |
| 33 | Buffer Underrun | resolv.c | remove_trailing_dots | 1251 | None | None |
| 27 | Ignored Return Value | eeprom.c | eeprom_fill | 60 | None | None |
| 27 | Ignored Return Value | eeprom.c | eeprom_init | 105 | None | None |
| 27 | Ignored Return Value | eeprom.c | eeprom_read | 160 | None | None |
| 27 | Ignored Return Value | eeprom.c | eeprom_write | 136 | None | None |
| 27 | Ignored Return Value | link-stats.c | link_stats_input_callback | 173 | None | None |
| 23 | Unused Value | rpl-ext-header.c | rpl_remove_header | 627 | None | None |
| 23 | Unused Value | rpl-icmp6.c | dio_output | 539 | None | None |
| 23 | Unused Value | rpl-icmp6.c | set16 | 184 | None | None |

| Score | Warning Class | File Name | Procedure Name | Line Number | State | Owner |
|---|---|---|---|---|---|---|
| 23 | Unused Value | rpl-icmp6.c | set32 | 171 | None | None |
| 23 | Unused Value | rpl-timers.c | schedule_dao | 322 | None | None |
| 21 | Useless Assignment | cfs-posix.c | cfs_seek | 92 | None | None |
| 21 | Useless Assignment | cfs-posix.c | cfs_seek | 94 | None | None |
| 21 | Useless Assignment | cfs-posix.c | cfs_seek | 96 | None | None |
| 21 | Useless Assignment | framer-802154.c | create_frame | 88 | None | None |
| 21 | Useless Assignment | framer-802154.c | create_frame | 90 | None | None |
| 21 | Useless Assignment | framer-802154.c | create_frame | 93 | None | None |
| 21 | Useless Assignment | framer-802154.c | create_frame | 98 | None | None |
| 21 | Useless Assignment | resolv.c | encode_name | 464 | None | None |

(Showing 100 of 183 Warnings)

# Analysis Metrics

## Table 5: encryption analysis 1 Metrics

| Metric Name | Value |
|---|---|
| Blank Lines | 6142 |
| Code Lines | 28350 |
| Comment Lines | 24936 |
| Include file instances | 118 |
| Lines with Code | 30066 |
| Lines with Comments | 26652 |
| Mixed Lines | 1716 |
| Top-level file instances | 118 |
| Total Lines | 61144 |
| User-defined functions | 921 |

# File Metrics

## Table 6:  encryption analysis 1 File Metrics Summary

| Metric Name | Max | Min | Avg |
|---|---|---|---|
| Blank Lines | 236 | 0 | 21.70 |
| Code Lines | 1403 | 1 | 100.18 |
| Comment Lines | 1302 | 0 | 88.11 |
| Cyclomatic Complexity | 330 | 0 | 13.78 |
| Lines with Code | 1476 | 1 | 106.24 |
| Lines with Comments | 1422 | 0 | 94.18 |
| Mixed Lines | 120 | 0 | 6.06 |
| Modified Cyclomatic Complexity | 330 | 0 | 13.22 |
| Taint Propagator Total | 3 | 0 | 0.05 |
| Taint Sink Total | 11 | 0 | 0.55 |
| Taint Source Total | 2 | 0 | 0.02 |
| Total Lines | 2362 | 3 | 216.06 |

# Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| uip6.c | 2362 | 1476 | 723 | 1403 | 650 | 236 |
| uip.h | 2219 | 698 | 1422 | 578 | 1302 | 219 |
| ctk.c | 1933 | 1289 | 554 | 1198 | 463 | 181 |
| sicslowpan.c | 1806 | 1060 | 604 | 1012 | 556 | 190 |
| rpl-dag.c | 1631 | 1273 | 215 | 1256 | 198 | 160 |
| resolv.c | 1521 | 1039 | 313 | 986 | 260 | 222 |
| rpl-icmp6.c | 1367 | 1018 | 225 | 983 | 190 | 159 |
| uip-nd6.c | 1147 | 825 | 280 | 779 | 234 | 88 |
| ctk.h | 989 | 467 | 506 | 376 | 415 | 107 |
| tcpip.c | 849 | 629 | 184 | 582 | 137 | 83 |
| websocket.c | 724 | 489 | 173 | 488 | 172 | 63 |
| uip-ds6-route.c | 721 | 526 | 157 | 493 | 124 | 71 |
| uip-ds6.c | 716 | 528 | 158 | 495 | 125 | 63 |
| uipopt.h | 684 | 159 | 487 | 122 | 450 | 75 |
| rpl-ext-header.c | 665 | 440 | 154 | 431 | 145 | 80 |
| frame802154.c | 623 | 401 | 194 | 380 | 173 | 49 |

# Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| frame802154e-ie.c | 585 | 458 | 119 | 434 | 95 | 32 |
| uip-nd6.h | 575 | 203 | 346 | 183 | 326 | 46 |
| process.h | 531 | 90 | 386 | 88 | 384 | 57 |
| ctk-conio.c | 530 | 419 | 71 | 403 | 55 | 56 |
| ctk-curses.c | 517 | 384 | 93 | 383 | 92 | 41 |
| trickle-timer.h | 514 | 76 | 418 | 65 | 407 | 31 |
| csma.c | 507 | 369 | 99 | 364 | 94 | 44 |
| rpl-timers.c | 497 | 345 | 112 | 336 | 103 | 49 |
| nbr-table.c | 483 | 331 | 132 | 328 | 129 | 23 |
| settings.c | 475 | 284 | 104 | 281 | 101 | 90 |
| queuebuf.c | 473 | 365 | 103 | 345 | 83 | 25 |
| slip.c | 457 | 343 | 90 | 327 | 74 | 40 |
| dhcpc.c | 431 | 337 | 55 | 336 | 54 | 40 |
| tapdev6.c | 425 | 287 | 80 | 277 | 70 | 68 |
| trickle-timer.c | 410 | 243 | 128 | 238 | 123 | 44 |
| tcp-socket.c | 409 | 307 | 66 | 307 | 66 | 36 |
| rpl-private.h | 408 | 258 | 127 | 224 | 93 | 57 |

## Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| psock.h | 404 | 59 | 321 | 49 | 311 | 34 |
| process.c | 388 | 233 | 113 | 229 | 109 | 46 |
| uip-ds6.h | 385 | 208 | 152 | 179 | 123 | 54 |
| tcpip.h | 378 | 55 | 283 | 53 | 281 | 42 |
| uip-icmp6.c | 378 | 247 | 89 | 245 | 87 | 44 |
| packetbuf.h | 371 | 153 | 185 | 141 | 173 | 45 |
| nullrdc.c | 368 | 271 | 87 | 247 | 63 | 34 |
| uip-ds6-nbr.c | 361 | 261 | 93 | 251 | 83 | 17 |
| rpl.c | 355 | 243 | 77 | 240 | 74 | 38 |
| settings.h | 352 | 173 | 134 | 156 | 117 | 62 |
| websocket-http-client.c | 347 | 247 | 73 | 246 | 72 | 28 |
| rpl-conf.h | 341 | 146 | 183 | 127 | 164 | 31 |
| rpl.h | 340 | 182 | 155 | 164 | 137 | 21 |
| ctk-draw.h | 335 | 27 | 281 | 26 | 280 | 28 |
| list.c | 330 | 123 | 182 | 123 | 182 | 25 |
| sicslowpan.h | 327 | 111 | 188 | 97 | 174 | 42 |
| pt.h | 322 | 57 | 231 | 56 | 230 | 35 |

Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| psock.c | 319 | 200 | 87 | 200 | 87 | 32 |
| rpl-mrhof.c | 316 | 204 | 105 | 186 | 87 | 25 |
| contiki-main.c | 314 | 213 | 63 | 209 | 59 | 42 |
| tcp-socket.h | 299 | 63 | 212 | 62 | 211 | 25 |
| radio.h | 294 | 62 | 186 | 61 | 185 | 47 |
| contiki-default-conf.h | 285 | 95 | 185 | 63 | 153 | 37 |
| cfs.h | 285 | 61 | 200 | 60 | 199 | 25 |
| contiki-conf.h | 275 | 183 | 57 | 165 | 39 | 53 |
| announcement.h | 274 | 35 | 213 | 34 | 212 | 27 |
| framer-802154.c | 274 | 172 | 80 | 165 | 73 | 29 |
| etimer.c | 272 | 171 | 74 | 171 | 74 | 27 |
| rpl-dag-root.c | 268 | 185 | 56 | 181 | 52 | 31 |
| mt.h | 263 | 29 | 208 | 28 | 207 | 27 |
| rpl-nbr-policy.c | 256 | 143 | 94 | 138 | 89 | 24 |
| packetbuf.c | 254 | 167 | 71 | 166 | 70 | 17 |
| etimer.h | 254 | 23 | 208 | 22 | 207 | 24 |
| phase.c | 252 | 159 | 71 | 156 | 68 | 25 |

## Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| roll-tm.h | 244 | 92 | 143 | 84 | 135 | 17 |
| uip-icmp6.h | 242 | 69 | 171 | 38 | 140 | 33 |
| rpl-of0.c | 238 | 145 | 84 | 136 | 75 | 18 |
| uip-nameserver.c | 236 | 155 | 80 | 140 | 65 | 16 |
| frame802154.h | 230 | 101 | 138 | 65 | 102 | 27 |
| rpl-ns.c | 230 | 149 | 67 | 148 | 66 | 15 |
| packetqueue.h | 222 | 31 | 168 | 30 | 167 | 24 |
| link-stats.c | 211 | 120 | 77 | 117 | 74 | 17 |
| linuxradio-drv.c | 210 | 157 | 34 | 157 | 34 | 19 |
| uip-ds6-route.h | 207 | 116 | 70 | 112 | 66 | 25 |
| slipdev.c | 203 | 81 | 104 | 80 | 103 | 19 |
| tsch-conf.h | 201 | 97 | 85 | 90 | 78 | 26 |
| udp-socket.c | 199 | 124 | 55 | 124 | 55 | 20 |
| ipolite.h | 197 | 28 | 151 | 27 | 150 | 19 |
| elfloader.h | 194 | 40 | 143 | 34 | 137 | 17 |
| udp-socket.h | 193 | 33 | 147 | 32 | 146 | 14 |
| polite.h | 192 | 25 | 150 | 24 | 149 | 18 |

Table 7: encryption analysis 1 File Metrics Details

| File | Total Lines | Lines with Code | Lines with Comments | Code Lines | Comment Lines | Blank Lines |
|---|---|---|---|---|---|---|
| uip-mcast6.h | 186 | 53 | 122 | 48 | 117 | 16 |
| mtarch.c | 185 | 92 | 66 | 84 | 58 | 35 |
| simple-udp.c | 183 | 100 | 64 | 100 | 64 | 19 |
| aes-128.c | 183 | 108 | 57 | 108 | 57 | 18 |
| ccm-star.c | 177 | 111 | 50 | 111 | 50 | 16 |
| ctk-filedialog.c | 177 | 125 | 39 | 125 | 39 | 13 |
| uip-fw.h | 176 | 34 | 127 | 30 | 123 | 19 |
| ctimer.c | 175 | 112 | 51 | 112 | 51 | 12 |
| collect.h | 171 | 86 | 71 | 74 | 59 | 26 |
| rtimer.h | 169 | 37 | 115 | 33 | 111 | 21 |
| ifft.c | 168 | 94 | 57 | 93 | 56 | 18 |
| ctimer.h | 166 | 20 | 133 | 19 | 132 | 14 |
| eeprom.c | 166 | 87 | 51 | 87 | 51 | 28 |
| cc.h | 165 | 64 | 96 | 47 | 79 | 22 |
| mmem.c | 164 | 49 | 98 | 49 | 98 | 17 |
| simple-udp.h | 163 | 33 | 115 | 32 | 114 | 16 |

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