

```
*****
154105 Tue Jan 15 10:34:30 2019
new/usr/src/uts/common/inet/ip/icmp.c
10096 kstat update routines shouldn't check for NULL kstat
*****
```

```

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18 *
19 * CDDL HEADER END
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21 /*
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23 * Copyright (c) 2013 by Delphix. All rights reserved.
24 * Copyright 2014, OmniTI Computer Consulting, Inc. All rights reserved.
25 * Copyright (c) 2018, Joyent, Inc.
26 */
27 /* Copyright (c) 1990 Mentor Inc. */

28 #include <sys/types.h>
29 #include <sys/stream.h>
30 #include <sys/stropts.h>
31 #include <sys/strlog.h>
32 #include <sys/strsun.h>
33 #define _SUN_TPI_VERSION 2
34 #include <sys/tihdr.h>
35 #include <sys/timod.h>
36 #include <sys/ddi.h>
37 #include <sys/sunddi.h>
38 #include <sys/strsubr.h>
39 #include <sys/suntpi.h>
40 #include <sys/xti_inet.h>
41 #include <sys/cmn_err.h>
42 #include <sys/kmem.h>
43 #include <sys/cred.h>
44 #include <sys/policy.h>
45 #include <sys/priv.h>
46 #include <sys/ucred.h>
47 #include <sys/zone.h>

48 #include <sys/sockio.h>
49 #include <sys/socket.h>
50 #include <sys/socketvar.h>
51 #include <sys/vtrace.h>
52 #include <sys/sdt.h>
53 #include <sys/debug.h>
54 #include <sys/isa_defs.h>
55 #include <sys/random.h>
56 #include <netinet/in.h>
57 #include <netinet/ip6.h>
58 #include <netinet/icmp6.h>
59 #include <netinet/udp.h>
```

```

63 #include <inet/common.h>
64 #include <inet/ip.h>
65 #include <inet/ip_impl.h>
66 #include <inet/ipsec_impl.h>
67 #include <inet/ip6.h>
68 #include <inet/ip_ire.h>
69 #include <inet/ip_if.h>
70 #include <inet/ip_multi.h>
71 #include <inet/ip_ndp.h>
72 #include <inet/proto_set.h>
73 #include <inet/mib2.h>
74 #include <inet/nd.h>
75 #include <inet/optcom.h>
76 #include <inet/snmpcom.h>
77 #include <inet/kstatcom.h>
78 #include <inet/ipclassifier.h>

80 #include <sys/tsol/label.h>
81 #include <sys/tsol/tnet.h>

83 #include <inet/rawip_impl.h>

85 #include <sys/disp.h>

87 /*
88 * Synchronization notes:
89 *
90 * RAWIP is MT and uses the usual kernel synchronization primitives. We use
91 * conn_lock to protect the icmp_t.
92 *
93 * Plumbing notes:
94 * ICMP is always a device driver. For compatibility with mibopen() code
95 * it is possible to I_PUSH "icmp", but that results in pushing a passthrough
96 * dummy module.
97 */
98 static void icmp_addr_req(queue_t *q, mblk_t *mp);
99 static void icmp_tpi_bind(queue_t *q, mblk_t *mp);
100 static void icmp_bind_proto(icmp_t *icmp);
101 static int icmp_build_hdr_template(conn_t *, const in6_addr_t *,
102         const in6_addr_t *, uint32_t);
103 static void icmp_capability_req(queue_t *q, mblk_t *mp);
104 static int icmp_close(queue_t *q, int flags, cred_t *);
105 static void icmp_close_free(conn_t *);
106 static void icmp_tpi_connect(queue_t *q, mblk_t *mp);
107 static void icmp_tpi_disconnect(queue_t *q, mblk_t *mp);
108 static void icmp_err_ack(queue_t *q, mblk_t *mp, t_scalar_t t_error,
109         int sys_error);
110 static void icmp_err_ack_prim(queue_t *q, mblk_t *mp, t_scalar_t primitive,
111         t_scalar_t tlierr, int sys_error);
112 static void icmp_icmp_input(void *arg1, mblk_t *mp, void *arg2,
113         ip_recv_attr_t *);
114 static void icmp_icmp_error_ipv6(conn_t *connp, mblk_t *mp,
115         ip_recv_attr_t *);
116 static void icmp_info_req(queue_t *q, mblk_t *mp);
117 static void icmp_input(void *, mblk_t *, void *, ip_recv_attr_t *);
118 static conn_t *icmp_open(int family, cred_t *credp, int *err, int flags);
119 static int icmp_openv4(queue_t *q, dev_t *devp, int flag, int sflag,
120         cred_t *credp);
121 static int icmp_openv6(queue_t *q, dev_t *devp, int flag, int sflag,
122         cred_t *credp);
123 static boolean_t icmp_opt_allow_udr_set(t_scalar_t level, t_scalar_t name);
124 int icmp_opt_set(conn_t *connp, uint_t inlen,
125         int level, int name, uint_t inlen,
126         uchar_t *invalp, uint_t *outlenp, uchar_t *outvalp,
127         void *thisdgAttrs, cred_t *cr);
```

```

128 int         icmp_opt_get(conn_t *connp, int level, int name,
129                         uchar_t *ptr);
130 static int    icmp_output_newdst(conn_t *connp, mblk_t *data_mp, sin_t *sin,
131                                 sin6_t *sin6, cred_t *cr, pid_t pid, ip_xmit_attr_t *ixa);
132 static mblk_t *icmp_prepend_hdr(conn_t *, ip_xmit_attr_t *, const ip_pkt_t *,
133                                 const in6_addr_t *, const in6_addr_t *, uint32_t, mblk_t *, int *);
134 static mblk_t *icmp_prepend_header_template(conn_t *, ip_xmit_attr_t *,
135                                         const in6_addr_t *, uint32_t, int *);
136 static int    icmp_snmp_set(queue_t *q, t_scalar_t level, t_scalar_t name,
137                           uchar_t *ptr, int len);
138 static void   icmp_ud_err(queue_t *q, mblk_t *mp, t_scalar_t err);
139 static void   icmp_tpi_unbind(queue_t *q, mblk_t *mp);
140 static int    icmp_wput(queue_t *q, mblk_t *mp);
141 static int    icmp_wput_fallback(queue_t *q, mblk_t *mp);
142 static void   icmp_wput_other(queue_t *q, mblk_t *mp);
143 static void   icmp_wput_iodata(queue_t *q, mblk_t *mp);
144 static void   icmp_wput_restricted(queue_t *q, mblk_t *mp);
145 static void   icmp_ulp_recv(conn_t *, mblk_t *, uint_t);

147 static void   *rawip_stack_init(netstackid_t stackid, netstack_t *ns);
148 static void   rawip_stack_fini(netstackid_t stackid, void *arg);

150 static void   *rawip_kstat_init(netstackid_t stackid);
151 static void   rawip_kstat_fini(netstackid_t stackid, kstat_t *ksp);
152 static int    rawip_kstat_update(kstat_t *kp, int rw);
153 static void   rawip_stack_shutdown(netstackid_t stackid, void *arg);

155 /* Common routines for TPI and socket module */
156 static conn_t *rawip_do_open(int, cred_t *, int *, int);
157 static void   rawip_do_close(conn_t *);
158 static int    rawip_do_bind(conn_t *, struct sockaddr *, socklen_t);
159 static int    rawip_do_unbind(conn_t *);
160 static int    rawip_do_connect(conn_t *, const struct sockaddr *, socklen_t,
161                           cred_t *, pid_t);

163 int          rawip_getsockname(sock_lower_handle_t, struct sockaddr *,
164                               socklen_t *, cred_t *);
165 int          rawip_getpeername(sock_lower_handle_t, struct sockaddr *,
166                               socklen_t *, cred_t *);

168 static struct module_info icmp_mod_info = {
169     5707, "icmp", 1, INFPSZ, 512, 128
170 };
unchanged_portion_omitted

5068 static int
5069 rawip_kstat_update(kstat_t *ksp, int rw)
5070 {
5071     rawip_named_kstat_t *rawipkp;
5072     netstackid_t stackid = (netstackid_t)(uintptr_t)ksp->ks_private;
5073     netstack_t *ns;
5074     icmp_stack_t *is;

5076     if (ksp->ks_data == NULL)
5075     if ((ksp == NULL) || (ksp->ks_data == NULL))
5077         return (EIO);

5079     if (rw == KSTAT_WRITE)
5080         return (EACCES);

5082     rawipkp = (rawip_named_kstat_t *)ksp->ks_data;

5084     ns = netstack_find_by_stackid(stackid);
5085     if (ns == NULL)
5086         return (-1);
5087     is = ns->netstack_icmp;

```

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5088     if (is == NULL) {
5089         netstack_rele(ns);
5090         return (-1);
5091     }
5092     rawipkp->inDatagrams.value.ui32 = is->is_rawip_mib.rawipInDatagrams;
5093     rawipkp->inCsumErrs.value.ui32 = is->is_rawip_mib.rawipInCsumErrs;
5094     rawipkp->inErrors.value.ui32 = is->is_rawip_mib.rawipInErrors;
5095     rawipkp->outDatagrams.value.ui32 = is->is_rawip_mib.rawipOutDatagrams;
5096     rawipkp->outErrors.value.ui32 = is->is_rawip_mib.rawipOutErrors;
5097     netstack_rele(ns);
5098     return (0);
5099 }
unchanged_portion_omitted

```

new/usr/src/uts/common/inet/ip/ip.c

1

```
*****
449512 Tue Jan 15 10:34:30 2019
new/usr/src/uts/common/inet/ip/ip.c
10096 kstat update routines shouldn't check for NULL kstat
*****
_____ unchanged_portion_omitted_


14067 static int
14068 ip_kstat_update(kstat_t *kp, int rw)
14069 {
14070     ip_named_kstat_t *ipkp;
14071     mib2_ipIfStatsEntry_t ipmib;
14072     ill_walk_context_t ctx;
14073     ill_t *ill;
14074     netstackid_t stackid = (zoneid_t)(uintptr_t)kp->ks_private;
14075     netstack_t *ns;
14076     ip_stack_t *ipst;
14077
14078     if (kp->ks_data == NULL)
14079     if (kp == NULL || kp->ks_data == NULL)
14080         return (EIO);
14081
14082     if (rw == KSTAT_WRITE)
14083         return (EACCES);
14084
14085     ns = netstack_find_by_stackid(stackid);
14086     if (ns == NULL)
14087         return (-1);
14088     ipst = ns->netstack_ip;
14089     if (ipst == NULL) {
14090         netstack_rele(ns);
14091         return (-1);
14092     }
14093     ipkp = (ip_named_kstat_t *)kp->ks_data;
14094
14095     bcopy(&ipst->ips_ip_mib, &ipmib, sizeof (ipmib));
14096     rw_enter(&ipst->ips_ill_g_lock, RW_READER);
14097     ill = ILL_START_WALK_V4(&ctx, ipst);
14098     for (; ill != NULL; ill = ill_next(&ctx, ill))
14099         ip_mib2_add_ip_stats(&ipmib, ill->ill_ip_mib);
14100     rw_exit(&ipst->ips_ill_g_lock);
14101
14102     ipkp->forwarding.value.ui32 = ipmib.ipIfStatsForwarding;
14103     ipkp->defaultTTL.value.ui32 = ipmib.ipIfStatsDefaultTTL;
14104     ipkp->inReceives.value.ui64 = ipmib.ipIfStatsHCInReceives;
14105     ipkp->inHdrErrors.value.ui32 = ipmib.ipIfStatsInHdrErrors;
14106     ipkp->inAddrErrors.value.ui32 = ipmib.ipIfStatsInAddrErrors;
14107     ipkp->forwDatagrams.value.ui64 = ipmib.ipIfStatsHCOutForwDatagrams;
14108     ipkp->inUnknownProtos.value.ui32 = ipmib.ipIfStatsInUnknownProtos;
14109     ipkp->inDiscards.value.ui32 = ipmib.ipIfStatsInDiscards;
14110     ipkp->inDelivers.value.ui64 = ipmib.ipIfStatsHCInDelivers;
14111     ipkp->outRequests.value.ui64 = ipmib.ipIfStatsHCOutRequests;
14112     ipkp->outDiscards.value.ui32 = ipmib.ipIfStatsOutDiscards;
14113     ipkp->outNoRoutes.value.ui32 = ipmib.ipIfStatsOutNoRoutes;
14114     ipkp->reasmTimeout.value.ui32 = ipst->ips_ip_reassembly_timeout;
14115     ipkp->reasmReqds.value.ui32 = ipmib.ipIfStatsReasmReqds;
14116     ipkp->reasmOKs.value.ui32 = ipmib.ipIfStatsReasmOKs;
14117     ipkp->reasmFails.value.ui32 = ipmib.ipIfStatsReasmFails;
14118     ipkp->fragOKs.value.ui32 = ipmib.ipIfStatsOutFragOKs;
14119     ipkp->fragFails.value.ui32 = ipmib.ipIfStatsOutFragFails;
14120     ipkp->fragCreates.value.ui32 = ipmib.ipIfStatsOutFragCreates;
14121
14122     ipkp->routingDiscards.value.ui32 = 0;
14123     ipkp->inErrs.value.ui32 = ipmib.tcpIfStatsInErrs;
14124     ipkp->noPorts.value.ui32 = ipmib.udpIfStatsNoPorts;
14125     ipkp->inCksumErrs.value.ui32 = ipmib.ipIfStatsInCksumErrs;
```

new/usr/src/uts/common/inet/ip/ip.c

2

```
14125     ipkp->reasmDuplicates.value.ui32 = ipmib.ipIfStatsReasmDuplicates;
14126     ipkp->reasmPartDups.value.ui32 = ipmib.ipIfStatsReasmPartDups;
14127     ipkp->forwProhibits.value.ui32 = ipmib.ipIfStatsForwProhibits;
14128     ipkp->udpInCksumErrs.value.ui32 = ipmib.udpIfStatsInCksumErrs;
14129     ipkp->udpInOverflows.value.ui32 = ipmib.udpIfStatsInOverflows;
14130     ipkp->rawipInOverflows.value.ui32 = ipmib.rawipIfStatsInOverflows;
14131     ipkp->ipsecInSucceeded.value.ui32 = ipmib.ipsecIfStatsInSucceeded;
14132     ipkp->ipsecInFailed.value.i32 = ipmib.ipsecIfStatsInFailed;
14133
14134     ipkp->inIPV6.value.ui32 = ipmib.ipIfStatsInWrongIPVersion;
14135     ipkp->outIPV6.value.ui32 = ipmib.ipIfStatsOutWrongIPVersion;
14136     ipkp->outSwitchIPV6.value.ui32 = ipmib.ipIfStatsOutSwitchIPVersion;
14137
14138     netstack_rele(ns);
14139
14140     return (0);
14141 }
_____ unchanged_portion_omitted_


14207 static int
14208 icmp_kstat_update(kstat_t *kp, int rw)
14209 {
14210     icmp_named_kstat_t *icmpkp;
14211     netstackid_t stackid = (zoneid_t)(uintptr_t)kp->ks_private;
14212     netstack_t *ns;
14213     ip_stack_t *ipst;
14214
14215     if (kp->ks_data == NULL)
14216     if ((kp == NULL) || (kp->ks_data == NULL))
14217         return (EIO);
14218
14219     if (rw == KSTAT_WRITE)
14220         return (EACCES);
14221
14222     ns = netstack_find_by_stackid(stackid);
14223     if (ns == NULL)
14224         return (-1);
14225     ipst = ns->netstack_ip;
14226     if (ipst == NULL) {
14227         netstack_rele(ns);
14228         return (-1);
14229     }
14230     icmpkp = (icmp_named_kstat_t *)kp->ks_data;
14231
14232     icmpkp->inMsgs.value.ui32 = ipst->ips_icmp_mib.icmpInMsgs;
14233     icmpkp->inErrors.value.ui32 = ipst->ips_icmp_mib.icmpInErrors;
14234     icmpkp->inDestUnreachs.value.ui32 =
14235         ipst->ips_icmp_mib.icmpInDestUnreachs;
14236     icmpkp->inTimeExcds.value.ui32 = ipst->ips_icmp_mib.icmpInTimeExcds;
14237     icmpkp->inParmProbs.value.ui32 = ipst->ips_icmp_mib.icmpInParmProbs;
14238     icmpkp->inSrcQuenches.value.ui32 = ipst->ips_icmp_mib.icmpInSrcQuenches;
14239     icmpkp->inRedirects.value.ui32 = ipst->ips_icmp_mib.icmpInRedirects;
14240     icmpkp->inEchoes.value.ui32 = ipst->ips_icmp_mib.icmpInEchoes;
14241     icmpkp->inEchoReps.value.ui32 = ipst->ips_icmp_mib.icmpInEchoReps;
14242     icmpkp->inTimestamps.value.ui32 = ipst->ips_icmp_mib.icmpInTimestamps;
14243     icmpkp->inTimestampReps.value.ui32 =
14244         ipst->ips_icmp_mib.icmpInTimestampReps;
14245     icmpkp->inAddrMasks.value.ui32 = ipst->ips_icmp_mib.icmpInAddrMasks;
14246     icmpkp->inAddrMaskReps.value.ui32 =
14247         ipst->ips_icmp_mib.icmpInAddrMaskReps;
14248     icmpkp->outMsgs.value.ui32 = ipst->ips_icmp_mib.icmpOutMsgs;
14249     icmpkp->outErrors.value.ui32 = ipst->ips_icmp_mib.icmpOutErrors;
14250     icmpkp->outDestUnreachs.value.ui32 =
14251         ipst->ips_icmp_mib.icmpOutDestUnreachs;
14252     icmpkp->outTimeExcds.value.ui32 = ipst->ips_icmp_mib.icmpOutTimeExcds;
14253     icmpkp->outParmProbs.value.ui32 = ipst->ips_icmp_mib.icmpOutParmProbs;
```

```
14253     icmpkp->outSrcQuenches.value.ui32 =
14254         ipst->ips_icmp_mib.icmpOutSrcQuenches;
14255     icmpkp->outRedirects.value.ui32 = ipst->ips_icmp_mib.icmpOutRedirects;
14256     icmpkp->outEchos.value.ui32 = ipst->ips_icmp_mib.icmpOutEchos;
14257     icmpkp->outEchoReps.value.ui32 = ipst->ips_icmp_mib.icmpOutEchoReps;
14258     icmpkp->outTimestamps.value.ui32 =
14259         ipst->ips_icmp_mib.icmpOutTimestamps;
14260     icmpkp->outTimestampReps.value.ui32 =
14261         ipst->ips_icmp_mib.icmpOutTimestampReps;
14262     icmpkp->outAddrMasks.value.ui32 =
14263         ipst->ips_icmp_mib.icmpOutAddrMasks;
14264     icmpkp->outAddrMaskReps.value.ui32 =
14265         ipst->ips_icmp_mib.icmpOutAddrMaskReps;
14266     icmpkp->inCsumErrs.value.ui32 = ipst->ips_icmp_mib.icmpInCsumErrs;
14267     icmpkp->inUnknowns.value.ui32 = ipst->ips_icmp_mib.icmpInUnknowns;
14268     icmpkp->inFragNeeded.value.ui32 = ipst->ips_icmp_mib.icmpInFragNeeded;
14269     icmpkp->outFragNeeded.value.ui32 =
14270         ipst->ips_icmp_mib.icmpOutFragNeeded;
14271     icmpkp->outDrops.value.ui32 = ipst->ips_icmp_mib.icmpOutDrops;
14272     icmpkp->inOverflows.value.ui32 = ipst->ips_icmp_mib.icmpInOverflows;
14273     icmpkp->inBadRedirects.value.ui32 =
14274         ipst->ips_icmp_mib.icmpInBadRedirects;

14275     netstack_rele(ns);
14276     return (0);
14277 }
unchanged_portion_omitted_
```

```
new/usr/src/uts/common/inet/sctp/sctp_snmp.c
```

```
*****
31576 Tue Jan 15 10:34:31 2019
new/usr/src/uts/common/inet/sctp/sctp_snmp.c
10096 kstat update routines shouldn't check for NULL kstat
*****  
1 /*
2  * CDDL HEADER START
3 *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
7 *
8  * You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9  * or http://www.opensolaris.org/os/licensing.
10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */  
  
22 /*
23  * Copyright (c) 2004, 2010, Oracle and/or its affiliates. All rights reserved.
24 */  
  
26 /*
27  * Copyright (c) 2018, Joyent, Inc.
28 */  
  
30 #include <sys/types.h>
31 #include <sys/stream.h>
32 #include <sys/cmn_err.h>
33 #define _SUN_TPI_VERSION 2
34 #include <sys/tihdr.h>
35 #include <sys/ddi.h>
36 #include <sys/sunddi.h>
37 #include <sys/tsol/tndb.h>
39 #include <netinet/in.h>  
  
41 #include <inet/common.h>
42 #include <inet/ip.h>
43 #include <inet/mib2.h>
44 #include <inet/snmpcom.h>
45 #include <inet/kstatcom.h>
46 #include <inet/ipclassifier.h>
47 #include "sctp_impl.h"
48 #include "sctp_addr.h"  
  
50 static void sctp_clr_kstats2(sctp_kstat_t *);
51 static void sctp_add_kstats2(sctp_kstat_counter_t *, sctp_kstat_t *);
52 static int sctp_snmp_state(sctp_t *);
53 static void sctp_sum_mib(sctp_stack_t *, mib2_sctp_t *);
54 static void sctp_add_mib(mib2_sctp_t *, mib2_sctp_t *);  
  
56 static int
57 sctp_kstat_update(kstat_t *kp, int rw)
58 {
59     sctp_named_kstat_t      *sctpkp;
60     sctp_t                  *sctp, *sctp_prev;
61     zoneid_t                myzoneid;
```

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```
new/usr/src/uts/common/inet/sctp/sctp_snmp.c
```

```
62     netstackid_t    stackid = (netstackid_t)(uintptr_t)kp->ks_private;
63     netstack_t      *ns;
64     sctp_stack_t    *sctps;
65     mib2_sctp_t     sctp_mib;  
  
67     if (kp->ks_data == NULL)
68     if (kp == NULL || kp->ks_data == NULL)
69         return (EIO);
70
71     if (rw == KSTAT_WRITE)
72         return (EACCES);
73
74     ns = netstack_find_by_stackid(stackid);
75     if (ns == NULL)
76         return (-1);
77     sctps = ns->netstack_sctp;
78     if (sctps == NULL) {
79         netstack_rele(ns);
80         return (-1);
81     }
82
83     /* For all exclusive netstacks, the zone ID is always GLOBAL_ZONEID.
84      */
85     if (stackid != GLOBAL_NETSTACKID)
86         myzoneid = GLOBAL_ZONEID;
87     else
88         myzoneid = curproc->p_zone->zone_id;
89
90     bzero(&sctp_mib, sizeof (sctp_mib));
91
92     /*
93      * Get the number of current associations and gather their
94      * individual set of statistics.
95      */
96     sctp_prev = NULL;
97     mutex_enter(&sctps->sctps_g_lock);
98     sctp = list_head(&sctps->sctps_g_list);
99     while (sctp != NULL) {
100         mutex_enter(&sctp->sctp_reflock);
101         if (sctp->sctp_condemned) {
102             mutex_exit(&sctp->sctp_reflock);
103             sctp = list_next(&sctps->sctps_g_list, sctp);
104             continue;
105         }
106         sctp->sctp_refcnt++;
107         mutex_exit(&sctp->sctp_reflock);
108         mutex_exit(&sctps->sctps_g_lock);
109         if (sctp_prev != NULL)
110             SCTP_REFRELEASE(sctp_prev);
111         if (sctp->sctp_connp->conn_zoneid != myzoneid)
112             goto next_sctp;
113         if (sctp->sctp_state == SCTPS_ESTABLISHED ||
114             sctp->sctp_state == SCTPS_SHUTDOWN_PENDING ||
115             sctp->sctp_state == SCTPS_SHUTDOWN_RECEIVED) {
116             /*
117              * Just bump the local sctp_mib. The number of
118              * existing associations is not kept in kernel.
119              */
120             BUMP_MIB(&sctp_mib, sctpCurrEstab);
121         }
122
123         if (sctp->sctp_opkts) {
124             SCTPS_UPDATE_MIB(sctps, sctpOutSCTPPkts,
125                               sctp->sctp_opkts);
126             sctp->sctp_opkts = 0;
```

```
2
```

```

127         }
129
130     if (sctp->sctp_obchunks) {
131         SCTPS_UPDATE_MIB(sctps, sctpOutCtrlChunks,
132                           sctp->sctp_obchunks);
133         UPDATE_LOCAL(sctp->sctp_cum_obchunks,
134                           sctp->sctp_obchunks);
135         sctp->sctp_obchunks = 0;
136     }
137
138     if (sctp->sctp_odchunks) {
139         SCTPS_UPDATE_MIB(sctps, sctpOutOrderChunks,
140                           sctp->sctp_odchunks);
141         UPDATE_LOCAL(sctp->sctp_cum_odchunks,
142                           sctp->sctp_odchunks);
143         sctp->sctp_odchunks = 0;
144     }
145
146     if (sctp->sctp_oudchunks) {
147         SCTPS_UPDATE_MIB(sctps, sctpOutUnorderChunks,
148                           sctp->sctp_oudchunks);
149         UPDATE_LOCAL(sctp->sctp_cum_oudchunks,
150                           sctp->sctp_oudchunks);
151         sctp->sctp_oudchunks = 0;
152     }
153
154     if (sctp->sctp_rxtchunks) {
155         SCTPS_UPDATE_MIB(sctps, sctpRetransChunks,
156                           sctp->sctp_rxtchunks);
157         UPDATE_LOCAL(sctp->sctp_cum_rxtchunks,
158                           sctp->sctp_rxtchunks);
159         sctp->sctp_rxtchunks = 0;
160     }
161
162     if (sctp->sctp_ipkts) {
163         SCTPS_UPDATE_MIB(sctps, sctpInSCTPPkts,
164                           sctp->sctp_ipkts);
165         sctp->sctp_ipkts = 0;
166     }
167
168     if (sctp->sctp_ibchunks) {
169         SCTPS_UPDATE_MIB(sctps, sctpInCtrlChunks,
170                           sctp->sctp_ibchunks);
171         UPDATE_LOCAL(sctp->sctp_cum_ibchunks,
172                           sctp->sctp_ibchunks);
173         sctp->sctp_ibchunks = 0;
174     }
175
176     if (sctp->sctp_idchunks) {
177         SCTPS_UPDATE_MIB(sctps, sctpInOrderChunks,
178                           sctp->sctp_idchunks);
179         UPDATE_LOCAL(sctp->sctp_cum_idchunks,
180                           sctp->sctp_idchunks);
181         sctp->sctp_idchunks = 0;
182     }
183
184     if (sctp->sctp_iudchunks) {
185         SCTPS_UPDATE_MIB(sctps, sctpInUnorderChunks,
186                           sctp->sctp_iudchunks);
187         UPDATE_LOCAL(sctp->sctp_cum_iudchunks,
188                           sctp->sctp_iudchunks);
189         sctp->sctp_iudchunks = 0;
190     }
191
192     if (sctp->sctp_fragdmsgs) {
193         SCTPS_UPDATE_MIB(sctps, sctpFragUsrMsgs,

```

```

193             sctp->sctp_fragdmsgs);
194             sctp->sctp_fragdmsgs = 0;
195         }
196
197         if (sctp->sctp_reassmsgs) {
198             SCTPS_UPDATE_MIB(sctps, sctpReasmUsrMsgs,
199                               sctp->sctp_reassmsgs);
200             sctp->sctp_reassmsgs = 0;
201         }
202
203     next_sctp:
204         sctp_prev = sctp;
205         mutex_enter(&sctps->sctps_g_lock);
206         sctp = list_next(&sctps->sctps_g_list, sctp);
207     }
208     mutex_exit(&sctps->sctps_g_lock);
209     if (sctp_prev != NULL)
210         SCTP_REFRELEASE(sctp_prev);
211
212     sctp_sum_mib(sctps, &sctp_mib);
213
214     /* Copy data from the SCTP MIB */
215     sctpkp = (sctp_named_kstat_t *)kp->ks_data;
216
217     /* These are from global ndd params. */
218     sctpkp->sctpRtoMin.value.ui32 = sctps->sctps_rto_ming;
219     sctpkp->sctpRtoMax.value.ui32 = sctps->sctps_rto_maxg;
220     sctpkp->sctpRtoInitial.value.ui32 = sctps->sctps_rto_initialg;
221     sctpkp->sctpValCookieLife.value.ui32 = sctps->sctps_cookie_life;
222     sctpkp->sctpMaxInitRetr.value.ui32 = sctps->sctps_max_init_retr;
223
224     /* Copy data from the local sctp_mib to the provided kstat. */
225     sctpkp->sctpCurrEstab.value.i32 = sctp_mib.sctpCurrEstab;
226     sctpkp->sctpActiveEstab.value.i32 = sctp_mib.sctpActiveEstab;
227     sctpkp->sctpPassiveEstab.value.i32 = sctp_mib.sctpPassiveEstab;
228     sctpkp->sctpAborted.value.i32 = sctp_mib.sctpAborted;
229     sctpkp->sctpShutdowns.value.i32 = sctp_mib.sctpShutdowns;
230     sctpkp->sctpOutofBlue.value.i32 = sctp_mib.sctpOutofBlue;
231     sctpkp->sctpChecksumError.value.i32 = sctp_mib.sctpChecksumError;
232     sctpkp->sctpOutCtrlChunks.value.i64 = sctp_mib.sctpOutCtrlChunks;
233     sctpkp->sctpOutOrderChunks.value.i64 = sctp_mib.sctpOutOrderChunks;
234     sctpkp->sctpOutUnorderChunks.value.i64 = sctp_mib.sctpOutUnorderChunks;
235     sctpkp->sctpRetransChunks.value.i64 = sctp_mib.sctpRetransChunks;
236     sctpkp->sctpOutAck.value.i32 = sctp_mib.sctpOutAck;
237     sctpkp->sctpOutAckDelayed.value.i32 = sctp_mib.sctpOutAckDelayed;
238     sctpkp->sctpOutWinUpdate.value.i32 = sctp_mib.sctpOutWinUpdate;
239     sctpkp->sctpOutFastRetrans.value.i32 = sctp_mib.sctpOutFastRetrans;
240     sctpkp->sctpOutWinProbe.value.i32 = sctp_mib.sctpOutWinProbe;
241     sctpkp->sctpInCtrlChunks.value.i64 = sctp_mib.sctpInCtrlChunks;
242     sctpkp->sctpInOrderChunks.value.i64 = sctp_mib.sctpInOrderChunks;
243     sctpkp->sctpInUnorderChunks.value.i64 = sctp_mib.sctpInUnorderChunks;
244     sctpkp->sctpInAck.value.i32 = sctp_mib.sctpInAck;
245     sctpkp->sctpInDupAck.value.i32 = sctp_mib.sctpInDupAck;
246     sctpkp->sctpInAckUnsent.value.i32 = sctp_mib.sctpInAckUnsent;
247     sctpkp->sctpFragUsrMsgs.value.i64 = sctp_mib.sctpFragUsrMsgs;
248     sctpkp->sctpReasmUsrMsgs.value.i64 = sctp_mib.sctpReasmUsrMsgs;
249     sctpkp->sctpOutSCTPPkts.value.i64 = sctp_mib.sctpOutSCTPPkts;
250     sctpkp->sctpInSCTPPkts.value.i64 = sctp_mib.sctpInSCTPPkts;
251     sctpkp->sctpInInvalidCookie.value.i32 = sctp_mib.sctpInInvalidCookie;
252     sctpkp->sctpTimRetrans.value.i32 = sctp_mib.sctpTimRetrans;
253     sctpkp->sctpTimRetransDrop.value.i32 = sctp_mib.sctpTimRetransDrop;
254     sctpkp->sctpTimHeartBeatProbe.value.i32 =
255             sctp_mib.sctpTimHeartBeatProbe;
256     sctpkp->sctpTimHeartBeatDrop.value.i32 = sctp_mib.sctpTimHeartBeatDrop;
257     sctpkp->sctpListenDrop.value.i32 = sctp_mib.sctpListenDrop;
258     sctpkp->sctpInClosed.value.i32 = sctp_mib.sctpInClosed;

```

```
260         netstack_rele(ns);
261         return (0);
262 }
unchanged_portion_omitted_
```