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*****
59746 Tue Jan 15 10:25:28 2019
new/usr/src/uts/common/os/evchannels.c
10092 sysevent_evc_control() dereferences pointer before checking for NULL
*****
1 /*
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23 */
24
25 /*
26 * Copyright (c) 2018, Joyent, Inc.
27 */
28
29 /*
30 * This file contains the source of the general purpose event channel extension
31 * to the sysevent framework. This implementation is made up mainly of four
32 * layers of functionality: the event queues (evch_evq_*()), the handling of
33 * channels (evch_ch*()), the kernel interface (sysevent_evc_*()) and the
34 * interface for the sysevent pseudo driver (evch_usr*()).
35 * Libsysevent.so uses the pseudo driver sysevent's ioctl to access the event
36 * channel extensions. The driver in turn uses the evch_usr*() functions below.
37 *
38 * The interfaces for user land and kernel are declared in sys/sysevent.h
39 * Internal data structures for event channels are defined in
40 * sys/sysevent_impl.h.
41 *
42 * The basic data structure for an event channel is of type evch_chan_t.
43 * All channels are maintained by a list named evch_list. The list head
44 * is of type evch_dlist_t.
45 */
46
47 #include <sys/types.h>
48 #include <sys/errno.h>
49 #include <sys/stropts.h>
50 #include <sys/debug.h>
51 #include <sys/ddi.h>
52 #include <sys/vmem.h>
53 #include <sys/cmn_err.h>
54 #include <sys/callb.h>
55 #include <sys/sysevent.h>
56 #include <sys/sysevent_impl.h>
57 #include <sys/sysmacros.h>
58 #include <sys/disp.h>
59 #include <sys/atomic.h>
60 #include <sys/door.h>
61 #include <sys/zone.h>

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62 #include <sys/sdt.h>
63
64 /* Back-off delay for door_ki_upcall */
65 #define EVCH_MIN_PAUSE 8
66 #define EVCH_MAX_PAUSE 128
67
68 #define GEVENT(ev) ((evch_gevent_t *)((char *)ev - \
69     offsetof(evch_gevent_t, ge_payload)))
70
71 #define EVCH_EVQ_EVCOUNT(x) ((x)->eq_eventq)->sq_count)
72 #define EVCH_EVQ_HIGHWM(x) ((x)->eq_eventq)->sq_highwm)
73
74 #define CH_HOLD_PEND 1
75 #define CH_HOLD_PEND_INDEF 2
76
77 struct evch_globals {
78     evch_dlist_t evch_list;
79     kmutex_t evch_list_lock;
80 };
81
82 unchanged portion omitted
83
84 1979 int
85 1980 sysevent_evc_control(evchan_t *scp, int cmd, ...)
86 1981 {
87 1982     va_list ap;
88 1983     evch_chan_t *chp;
89 1979     evch_chan_t *chp = ((evch_bind_t *)scp)->bd_channel;
90 1984     uint32_t chlenp;
91 1985     uint32_t chlen;
92 1986     uint32_t ochlen;
93 1987     int rc = 0;
94
95 1989     if (scp == NULL) {
96 1990         return (EINVAL);
97 1991     }
98
99 1993     chp = ((evch_bind_t *)scp)->bd_channel;
100
101 1995     va_start(ap, cmd);
102 1996     mutex_enter(&chp->ch_mutex);
103 1997     switch (cmd) {
104 1998     case EVCH_GET_CHAN_LEN:
105 1999         chlenp = va_arg(ap, uint32_t *);
106 2000         *chlenp = chp->ch_maxev;
107 2001         break;
108 2002     case EVCH_SET_CHAN_LEN:
109 2003         chlen = va_arg(ap, uint32_t);
110 2004         ochlen = chp->ch_maxev;
111 2005         chp->ch_maxev = min(chlen, evch_events_max);
112 2006         if (ochlen < chp->ch_maxev) {
113 2007             cv_signal(&chp->ch_pubcv);
114 2008         }
115 2009         break;
116 2010     case EVCH_GET_CHAN_LEN_MAX:
117 2011         *va_arg(ap, uint32_t *) = evch_events_max;
118 2012         break;
119 2013     default:
120 2014         rc = EINVAL;
121 2015     }
122
123 2017     mutex_exit(&chp->ch_mutex);
124 2018     va_end(ap);
125 2019     return (rc);
126 2020 }
127
128 unchanged portion omitted

```