

RADOS - Bug #49521

build failure on centos-8, bad/incorrect use of #ifdef/#elif

02/26/2021 09:37 PM - Kaleb KEITHLEY

Status:	New	% Done:	0%
Priority:	Normal	Spent time:	0.00 hour
Assignee:			
Category:			
Target version:	v15.2.10		
Source:	Community (dev)	Affected Versions:	v14.2.17, v15.2.9, v16.1.0
Tags:		ceph-qa-suite:	
Backport:		Component(RADOS):	
Regression:	Yes	Pull request ID:	
Severity:	3 - minor	Crash signature (v1):	
Reviewed:		Crash signature (v2):	
Description			
building 15.2.9 for CentOS Storage SIG el8 I hit this compile error:			
cmake ... -DWITH_REENTRANT_STRSIGNAL=ON ...			
...			
[8%] Building CXX object src/mgr/CMakeFiles/mgr_cap_obj.dir/MgrCap.cc.o			
cd /builddir/build/BUILD/ceph-15.2.9/build/src/mgr && /usr/bin/c++ -D_FILE_OFFSET_BITS=64 -D_GNU_SOURCE -D__linux__ -isystem /builddir/build/BUILD/ceph-15.2.9/build/boost/include -I/builddir/build/BUILD/ceph-15.2.9/build/src/include -I/builddir/build/BUILD/ceph-15.2.9/src -isystem /builddir/build/BUILD/ceph-15.2.9/build/include -isystem /builddir/build/BUILD/ceph-15.2.9/src/xxHash -isystem /builddir/build/BUILD/ceph-15.2.9/src/rapidjson/include -O2 -g -pipe -Wall -Werror=format-security -Wp,-D_FORTIFY_SOURCE=2 -Wp,-D_GLIBCXX_ASSERTIONS -fexceptions -fstack-protector-strong -grecord-gcc-switches -specs=/usr/lib/rpm/redhat/redhat-hardened-cc1 -specs=/usr/lib/rpm/redhat/redhat-annobin-cc1 -m64 -mtune=generic -fasynchronous-unwind-tables -fstack-clash-protection -fcf-protection -Wall -fno-strict-aliasing -fsigned-char -Wtype-limits -Wignored-qualifiers -Wpointer-arith -Werror=format-security -Winit-self -Wno-unknown-pragmas -rdynamic -O2 -g -pipe -Wall -Werror=format-security -Wp,-D_FORTIFY_SOURCE=2 -Wp,-D_GLIBCXX_ASSERTIONS -fexceptions -fstack-protector-strong -grecord-gcc-switches -specs=/usr/lib/rpm/redhat/redhat-hardened-cc1 -specs=/usr/lib/rpm/redhat/redhat-annobin-cc1 -m64 -mtune=generic -fasynchronous-unwind-tables -fstack-clash-protection -fcf-protection -Wno-unknown-pragmas -Wnon-virtual-dtor -Wno-ignored-qualifiers -ftemplate-depth-1024 -Wstrict-null-sentinel -Woverloaded-virtual -fno-new-ttp-matching -U_FORTIFY_SOURCE -D_FORTIFY_SOURCE=2 -fstack-protector-strong -fdiagnostics-color=auto -fno-builtin-malloc -fno-builtin-calloc -fno-builtin-realloc -fno-builtin-free -O2 -g -DNDEBUG -fPIC -DHAVE_CONFIG_H -D__CEPH__ -D_REENTRANT -D_THREAD_SAFE -D_STDC_FORMAT_MACROS -std=c++1z -o CMakeFiles/mgr_cap_obj.dir/MgrCap.cc.o -c /builddir/build/BUILD/ceph-15.2.9/src/mgr/MgrCap.cc			
In file included from /builddir/build/BUILD/ceph-15.2.9/src/global/global_init.cc:26:			
/builddir/build/BUILD/ceph-15.2.9/src/global/signal_handler.h:25:31: error: #elif with no expression			
#elif HAVE_REENTRANT_STRSIGNAL			
^			
make ² : Leaving directory '/builddir/build/BUILD/ceph-15.2.9/build'			
...			
This is apparently due to the change made for 15.2.9 in commit bb85219ea47f0b8ebb6027e78fadd156be9950ee (octopus), and b9b6faf66ae67648626470cb4fc3f0850ac4d842 (main/master). Also in nautilus and pacific branches.			
I fixed it with:			
--- ceph-15.2.9/src/global/signal_handler.h.orig 2021-02-26 15:34:39.500250672 -0500			
+++ ceph-15.2.9/src/global/signal_handler.h 2021-02-26 15:35:39.514842687 -0500			
@ -20,9 +20,9 @			
typedef void (*signal_handler_t)(int);			

```
-#ifndef HAVE_SIGDESCR_NP
+#if defined(HAVE_SIGDESCR_NP) # define sig_str(signum) sigdescr_np(signum)
-#elif HAVE_REENTRANT_STRSIGNAL
+#elif defined(HAVE_REENTRANT_STRSIGNAL) # define sig_str(signum) strsignal(signum)
#else # define sig_str(signum) sys_siglist[signum]
```

For good measure I also made this change:

```
--- ceph-15.2.9/src/include/config-h.in.cmake.orig 2021-02-26 13:32:11.218444320 -0500
+++ ceph-15.2.9/src/include/config-h.in.cmake 2021-02-26 15:00:31.976950884 -0500
@ -1,7 +1,6 @
/* config.h file expanded by Cmake for build */
```

```
#ifndef CONFIG_H
#define CONFIG_H
+#pragma once

/* fallocate(2) is supported /
#cmakedefine CEPH_HAVE_FALLOCATE
@ -354,4 +353,3 @
/ Define if RWL is enabled */
#cmakedefine WITH_RBD_RWL

-#endif /* CONFIG_H */
```

History

#1 - 02/27/2021 02:26 PM - Kaleb KEITHLEY

N.B. fedora-33 and later have sigdescr_np(); ditto for rhel-9.

Also strsignal(3) is not **MT-SAFE**. (It's also not reentrant.) MT-SAFE is the more important distinction and the choice of HAVE_REENTRANT_STRSIGNAL is a tad misleading.

#2 - 05/05/2021 02:21 PM - Sage Weil

- Project changed from Ceph to RADOS
- Category deleted (common)