rgw - Bug #39611
master/octopus FTBFS on s390x
05/07/2019 02:05 PM - Nathan Cutler

<table>
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<tr>
<th>Status:</th>
<th>Resolved</th>
<th>% Done:</th>
<th>0%</th>
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<td>Spent time:</td>
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<tr>
<td>Assignee:</td>
<td>Casey Bodley</td>
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<tr>
<td>Category:</td>
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<td>Backport:</td>
<td>nautilus</td>
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<td>Regression:</td>
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**Description**

tip of master 6455f96c49ceb49691f27f9d8604e9f5d366ed0f fails to build from source (FTBFS) on s390x. Relevant log excerpt:

```
...  
[ 1726s] [ 49%] Building CXX object src/rgw/CMakeFiles/rgw_common.dir/rgw_env.cc.o  
[ 1727s] [ 49%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/Threads.cc.o  
[ 1732s] [ 49%] Building CXX object src/mon/CMakeFiles/mon.dir/Elector.cc.o  
[ 1736s] [ 49%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/Types.cc.o  
[ 1737s] [ 49%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_deleter/RemoveRequest.cc.o  
[ 1738s] [ 49%] Building CXX object src/rgw/CMakeFiles/rgw_common.dir/rgw_es_query.cc.o  
[ 1743s] [ 49%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/cache/PassthroughImageCache.cc.o  
[ 1747s] [ 49%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_deleter/SnapshotPurgeRequest.cc.o  
[ 1752s] [ 49%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/cache/WriteAroundObjectDispatch.cc.o  
[ 1752s] [ 49%] Building CXX object src/rgw/CMakeFiles/rgw_common.dir/rgw_formats.cc.o  
[ 1757s] [ 50%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_deleter/TrashMoveRequest.cc.o  
[ 1758s] [ 50%] Building CXX object src/mon/CMakeFiles/mon.dir/HealthMonitor.cc.o  
[ 1770s] [ 51%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/deep_copy/ImageCopyRequest.cc.o  
[ 1784s] [ 51%] Building CXX object src/touch/CMakeFiles/touch.dir/file.cc.o  
[ 1791s] [ 51%] Building CXX object src/rgw/CMakeFiles/rgw_common.dir/rgw_gc.cc.o  
[ 1797s] [ 51%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/deep_copy/MetadataCopyRequest.cc.o  
[ 1799s] [ 51%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_map/LoadRequest.cc.o  
[ 1807s] [ 51%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/deep_copy/ObjectCopyRequest.cc.o  
[ 1807s] [ 51%] Building CXX object src/mon/CMakeFiles/mon.dir/ConfigKeyService.cc.o  
[ 1808s] [ 51%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_map/Policy.cc.o  
[ 1813s] [ 51%] Building CXX object src/rgw/CMakeFiles/rgw_common.dir/rgw_http_client.cc.o  
[ 1822s] [ 51%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_map/SimplePolicy.cc.o  
[ 1830s] [ 51%] Building CXX object src/tools/rbd_mirror/CMakeFiles/rbd_mirror_internal.dir/image_map/StateTransition.cc.o  
[ 1830s] [ 51%] Building CXX object src/librbd/CMakeFiles/rbd_internal.dir/deep_copy/SetHeadRequest.cc.o  
```

06/06/2021
error: no matching function for call to 'to_string(boost::string_ref)'

In file included from /home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4c0/src/rgw/rgw_common.h:32,
                   from /home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4c0/src/rgw/rgw_arn.h:70:20: note: candidate: '
  std::__cxx11::string rgw::to_string(const ARN& a)' 
  std::string to_string(const ARN& a) { 
  ^~~~~~~~~ 
  } 
  std::string to_string(const ARNResource& r) { 
  ^~~~~~~~~ 
  } 
  In file included from /usr/include/c++/8/bits/basic_string.h:6453:3: note: candidate: '
  std::__cxx11::string std::__cxx11::to_string(int)'
    to_string(int __val)
    ^~~~~~~~~ 
  } 
  std::string to_string(const char_traits<char>& __traits)
  ^~~~~~~~~ 
  no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char> >') to 'int'
  } 
  std::string to_string(const unsigned int)'
  to_string(unsigned __val)
  ^~~~~~~~~ 
  } 
  no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<const char, std::char_traits<const char> >') to 'unsigned int'
  } 
  std::string to_string(const long int)'
  to_string(long __val)
  ^~~~~~~~~ 
  } 
  no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<const char, std::char_traits<const char> >') to 'long int'
  } 
  std::string to_string(const long unsigned int)'
  to_string(unsigned long __val)
  ^~~~~~~~~ 
  } 
  no known conversion for argument 1
from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'long unsigned int'

```cpp
from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'long unsigned int'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6475:3: note: candidate: 'std::__cxx11::string std::__cxx11::to_string(long long int)'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6475:3: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'long unsigned int'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6481:3: note: candidate: 'std::__cxx11::string std::__cxx11::to_string(unsigned long long int)'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6481:3: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'unsigned long long int'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6487:3: note: candidate: 'std::__cxx11::string std::__cxx11::to_string(float)'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6487:3: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'float'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6505:3: note: candidate: 'std::__cxx11::string std::__cxx11::to_string(long double)'
```

```cpp
/usr/include/c++/8/bits/basic_string.h:6505:3: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'long double'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_json_enc.cc:1534:66: error: no matching function for call to 'to_string(boost::string_ref)'
```

```cpp
In file included from /home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_json_enc.cc:1534,
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:70:20: note: candidate: 'std::__cxx11::string rgw::to_string(const rgw::ARN& a)'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:70:20: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'const rgw::ARN&'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:106:20: note: candidate: 'std::__cxx11::string rgw::to_string(const rgw::ARNResource& r)'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:106:20: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'const rgw::ARNResource&'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_common.h:20:
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_common.h:28:
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_json_enc.cc:4:
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:70:20: note: candidate: 'std::__cxx11::string std::to_string(const ARN& a)'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:70:20: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'const ARN&'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:106:20: note: candidate: 'std::__cxx11::string std::to_string(const ARNResource& r)'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_arn.h:106:20: note: no known conversion for argument 1 from 'boost::string_ref' (aka 'boost::basic_string_ref<char, std::char_traits<char>>') to 'const ARNResource&'
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_common.h:20:
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_common.h:28:
```

```cpp
/home/abuild/rpmbuild/BUILD/ceph-15.0.0-1046-g9a3fbd4b4c0/src/rgw/rgw_json_enc.cc:4:
```
Related issues:
Copied to rgw - Backport #42838: nautilus: master/octopus FTBFS on s390x
Resolved

History
#1 - 05/07/2019 06:11 PM - Casey Bodley
- Status changed from New to Fix Under Review
- Pull request ID set to 28013

I see a recent commit 2bd353233112ead32181b94a2af1b04e3fa9e1de that changed some of these calls:

- encode_json("password", to_string(conf.get_admin_password()), f);
+ encode_json("password", ::to_string(conf.get_admin_password()), f);

The intent is to call this overload defined above in rgw_json_enc.cc:

```cpp
/* This utility function shouldn't conflict with the overload of std::to_string
 * provided by string_ref since Boost 1.54 as it's defined outside of the std
 * namespace. I hope we'll remove it soon - just after merging the Matt's PR
 * for bundled Boost. It would allow us to forget that CentOS 7 has Boost 1.53. */
static inline std::string to_string(const boost::string_ref& s)
{
    return std::string(s.data(), s.length());
}
```

Applying that same change to all to_string() calls in rgw::keystone::AdminTokenRequestVer2::dump and
While running with `--resolve-parent`, the script "backport-create-issue" noticed that all backports of this issue are in status "Resolved" or "Rejected".