

strongSwan - Bug #477

test_asn1 failures on 32-bit hardware

02.01.2014 23:42 - Jonathan Davies

Status:	Closed	Start date:	02.01.2014
Priority:	High	Due date:	
Assignee:	Tobias Brunner	Estimated time:	0.00 hour
Category:	testing		
Target version:	5.1.2		
Affected version:	dr rc master	Resolution:	Fixed

Description

I uploaded the 5.1.2~dr2 tarball to Ubuntu and the unit tests fail on i386 and powerpc.

On i386, the build reports the following:

```
...
gcc -DHAVE_CONFIG_H -I. -I../... -D_FORTIFY_SOURCE=2 -I../.../src/libstrongswan -I../.../s
rc/libstrongswan/tests -DPLUGINDIR=\"\"../.../src/libstrongswan/plugins\"\" -DPLUGINS=\"\"test-vect
ors curl soup unbound ldap mysql sqlite pkcs11 aes rc2 sha1 sha2 md4 md5 rdrand random nonce x509
revocation constraints pubkey pkcs1 pkcs7 pkcs8 pkcs12 pgp dnskey sshkey pem padlock openssl gcryp
t af-alg fips-prf gmp agent xcbc cmac hmac ctr ccm gcm ntru\"\" -g -O2 -fPIE -fstack-protector --p
aram=ssp-buffer-size=4 -Wformat -Werror=format-security -include /build/builddd/strongswan-5.1.2~dr
2/config.h -c -o suites/tests-test_test_rng.o `test -f 'suites/test_test_rng.c' || echo './`suite
s/test_test_rng.c
suites/test_asn1.c: In function 'test_asn1_to_time':
suites/test_asn1.c:475:3: warning: this decimal constant is unsigned only in ISO C90 [enabled by d
efault]
    { 4107542400, 0x18, "210003010000Z" }
      ^
suites/test_asn1.c: In function 'test_asn1_from_time':
suites/test_asn1.c:515:9: warning: this decimal constant is unsigned only in ISO C90 [enabled by d
efault]
    { 4107542400, 0x18, chunk_from_chars(
      ^
...

```

And then proceeds to fail with:

```
...
Running suite 'asn1':
  Running case 'algorithmIdentifier': +
  Running case 'parse_algorithmIdentifier': +
  Running case 'known_oid': +
  Running case 'build_known_oid': +
  Running case 'oid_from_string': +
  Running case 'oid_to_string': +
  Running case 'length': +
  Running case 'unwrap': +
  Running case 'is_asn1': +
  Running case 'is_printablestring': +
  Running case 'to_time': -
    Failure in 'test_asn1_to_time': asn1_to_time(&chunk, test[i].type) == test[i].time (suites/t
est_asn1.c:488, i = 0)
  Running case 'from_time': -
    Failure in 'test_asn1_from_time': chunk_equals(chunk, test[i].chunk) (suites/test_asn1.c:530
, i = 0)
...

```

Full log may be found here:

https://launchpadlibrarian.net/161457887/buildlog_ubuntu-trusty-i386.strongswan_5.1.2~dr2-0ubuntu1_FAILEDTOBUILD.txt.gz

Associated revisions

Revision 94e10f15 - 06.01.2014 18:23 - Tobias Brunner

test-asn1: Fix skipping of >2038 tests on i386

The two constants overflow time_t on i386 (they also produced a compiler warning without type suffix) so the comparison with TIME_32_BIT_SIGNED_MAX did not work as intended.

Fixes #477.

History

#1 - 03.01.2014 06:14 - Jonathan Davies

The test in question tries to check if the 'time' member is greater than the maximum value of a time_t isn't ever going to happen, since it is itself a time_t.

I've worked around this for now in the packages by checking "< 0" instead and have a Git branch here:

- <https://github.com/strongswan/strongswan/pull/3>

#2 - 06.01.2014 18:25 - Tobias Brunner

- *Tracker changed from Issue to Bug*
- *Category set to testing*
- *Status changed from New to Resolved*
- *Assignee set to Tobias Brunner*
- *Target version set to 5.1.2*
- *Resolution set to Fixed*

Thanks, I pushed a slightly different fix to the repository (also fixes the compiler warnings).

#3 - 28.02.2014 08:38 - Tobias Brunner

- *Status changed from Resolved to Closed*