

## Ruby master - Bug #15097

### Gem install fails on Ruby 2.5.1 with Cygwin (get\_dns\_server\_list undefined)

09/10/2018 03:52 AM - caspercg (Casper G)

<b>Status:</b> Open	
<b>Priority:</b> Normal	
<b>Assignee:</b>	
<b>Target version:</b>	
<b>ruby -v:</b> ruby 2.5.1p57 (2018-03-29 revision 63029) [i386-cygwin]	<b>Backport:</b> 2.3: UNKNOWN, 2.4: UNKNOWN, 2.5: UNKNOWN
<b>Description</b>	
Compiled and installed Ruby 2.5.1 on Cygwin, and now gem install fails with:	
ERROR: While executing gem ... (NameError) undefined local variable or method `get_dns_server_list' for Win32::Resolv:Module	
While building Ruby I got the following warning:	
win32/resolv: Could not be configured. It will not be installed. Check ext/win32/resolv/mkmf.log for more details.	
The error in mkmf.log is:	
/ruby-2.5.1/ext/win32/resolv/confctest.c:14: undefined reference to `GetNetworkParams' collect2: error: ld returned 1 exit status	
The mkmf.log is also attached.	
Could not figure out how to fix this problem. Is 2.5.1 not compatible with Cygwin?	

## History

### #1 - 09/10/2018 03:52 AM - caspercg (Casper G)

- Subject changed from Gem install fails on Ruby 2.5.1 (get\_dns\_server\_list undefined) to Gem install fails on Ruby 2.5.1 with Cygwin (get\_dns\_server\_list undefined)

### #2 - 09/10/2018 09:31 AM - nobu (Nobuyoshi Nakada)

I can't reproduce it, with the trunk and 2.5.2 in the repository, using

```
$ LANG=C i686-pc-cygwin-gcc -v
Using built-in specs.
COLLECT_GCC=i686-pc-cygwin-gcc
COLLECT_LTO_WRAPPER=/usr/lib/gcc/i686-pc-cygwin/6.4.0/lto-wrapper.exe
Target: i686-pc-cygwin
Configured with: /usr/src/ports/cygwin32-gcc/cygwin32-gcc-6.4.0-1.x86_64/src/gcc-6.4.0/configure --srcdir=/usr
/src/ports/cygwin32-gcc/cygwin32-gcc-6.4.0-1.x86_64/src/gcc-6.4.0 --prefix=/usr --exec-prefix=/usr --localstat
edir=/var --sysconfdir=/etc --docdir=/usr/share/doc/cygwin32-gcc --htmldir=/usr/share/doc/cygwin32-gcc/html -C
--build=x86_64-pc-cygwin --host=x86_64-pc-cygwin --target=i686-pc-cygwin --without-libiconv-prefix --without-
libintl-prefix --with-sysroot=/usr/i686-pc-cygwin/sys-root --with-build-sysroot=/usr/i686-pc-cygwin/sys-root -
-libexecdir=/usr/lib --enable-shared --enable-shared-libgcc --enable-static --enable-version-specific-runtime-
libs --enable-__cxa_atexit --with-dwarf2 --with-arch=i686 --with-tune=generic --disable-sjlj-exceptions --enab
le-languages=c,c++,fortran,lto --enable-graphite --enable-linker-build-id --enable-clocale=gnu --enable-thread
s=posix --enable-libatomic --enable-libgomp --enable-libitm --enable-libquadmath --enable-libquadmath-support
--enable-libssp --disable-symvers --with-default-libstdcxx-abi=gcc4-compatible --with-gnu-ld --with-gnu-as --w
ith-system-zlib
Thread model: posix
gcc version 6.4.0 (GCC)
```

The last try for GetNetworkParams is:

```
"gcc -o confctest.exe -I../.../ext/include/i386-cygwin -I../.../.../src/include -I../.../.../src/ext/win32
```

```

/resolve -D_XOPEN_SOURCE -D_GNU_SOURCE -O3 -ggdb3 -Wall -Wextra -Wno-unused-parameter -Wno-parentheses -Wno-long-long -Wno-missing-field-initializers -Wno-tautological-compare -Wno-parentheses-equality -Wno-constant-logical-operand -Wno-self-assign -Wno-unused-variable -Wno-implicit-int -Wno-pointer-arith -Wno-write-strings -Wno-declaration-after-statement -Wno-implicit-function-declaration -Wno-deprecated-declarations -Wno-misleading-indentation -Wno-packed-bitfield-compat -Wno-suggest-attribute=noreturn -Wno-suggest-attribute=format -Wno-implicit-fallthrough=0 -Wno-duplicated-cond -Wno-strict-conf-test.c -L. -L../.. -L. -fstack-protector -lruby250-static -liphlpapi -lpthread -lgmp -ldl "
checked program was:
/* begin */
1: #include "ruby.h"
2:
3: /*top*/
4: extern int t(void);
5: int main(int argc, char **argv)
6: {
7:     if (argc > 1000000) {
8:         printf("%p", &t);
9:     }
10:
11:     return 0;
12: }
13: extern void GetNetworkParams();
14: int t(void) { GetNetworkParams(); return 0; }
/* end */

```

and seems no significant differences than yours.

### #3 - 09/10/2018 07:18 PM - caspercg (Casper G)

nobu (Nobuyoshi Nakada) wrote:

I can't reproduce it, with the trunk and 2.5.2 in the repository, using

Thanks for taking a look at it.

This is on a 32-bit Windows, if that has any significance?

However I now figured out a workaround and got it to work.

1: ext/win32/resolve/extconf.rb has to be modified like so:

```

# if have_library('iphlpapi', 'GetNetworkParams')
  create_makefile('win32/resolve')
# end

```

i.e. the test for GetNetworkParams has to be commented out, because this is the test that starts all the trouble.

2: Once ext/win32/resolve/Makefile has been generated then -liphlpapi has to be manually added to the LIBS line in the Makefile.

Now everything compiles, and the resolver works as it should.

3: However there is one more thing which needs to be done, and that is a full Cygwin rebase of the Ruby dynamic link libraries, otherwise you will get a lot of errors like this:

```

9876 child_info_fork::abort: address space needed by 'utf_16be.so' (0x270000) is already occupied

```

For anyone else running into this issue follow the instructions for rebasing here:

<https://github.com/rvm/rvm/issues/3309>

And here:

<http://cygwin.wikia.com/wiki/Rebaseall>

After these 3 steps are done, I now have it fully working.

I think there is something wrong with the 32-bit detection of GetNetworkParams(?), also it seems there's a missing rebase at the end of the installation.

In any case, with the above tricks, it works fine now.

## Files

mkmf.log	3.96 KB	09/10/2018	caspercg (Casper G)
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