

Cellular Network Infrastructure - Bug #3598

jenkins "master" jobs use different compile flags than "gerrit" build verification

09/25/2018 08:53 PM - laforge

Status:	In Progress	Start date:	09/25/2018
Priority:	Normal	Due date:	
Assignee:	osmith	% Done:	20%
Category:			
Target version:			
Spec Reference:			
Description			

History

#1 - 09/25/2018 08:56 PM - laforge

- Status changed from In Progress to New

- Assignee set to osmith

I recently merged Change-Id I61997a3668cc3a40d12ca023272f6d782e6fbefe which adds code that uses constructs like "for (int i = 0; i < foo; i++)". Our gerrit build verification jobs had no problem with that, the patch got V+1 and I merged it.

Now the "master" jobs are failing like this:

```
osmo-config-merge.c: In function 'file_read':
osmo-config-merge.c:148:4: error: 'for' loop initial declarations are only allowed in C99 or C11 mode
   for (int i = 0; i < cur_indent - indent; i++) {
   ^
osmo-config-merge.c:148:4: note: use option -std=c99, -std=gnu99, -std=c11 or -std=gnull to compile your code
```

so somehow the C standard / compiler flags between gerrit and master builds appear to be different.

For the full example, see

<https://jenkins.osmocom.org/jenkins/job/master-osmo-sgsn/IU=-enable-iu,a2=default,a3=default,label=osmocom-master-debian9/5782/display/redirect> [dead link, already cleaned up]

We should fix this to ensure nothing passes gerrit build verification but later fails after being merged to master.

#2 - 12/07/2018 04:16 PM - osmith

- Status changed from *New* to *In Progress*

- % Done changed from 0 to 20

libosmocore is not built inside Docker (unlike some other Osmocom projects). So the buildbot's host GCC is used.

We have Debian 8 (jessie) and 9 (stretch) based build bots. Looking at the gcc versions:

- jessie (8) has GCC 4.x
- stretch (9) has GCC 6.x

In GCC-5, the default value for `-std` changed:

`GCC defaults to -std=gnull instead of -std=gnu89.`

So as I understand, in `gerrit`, your patches were compiled by chance with GCC-6.x on Debian stretch, and then in master with GCC-4.x where it complained about using C99 syntax.

We can probably set `-std=...` somewhere in the `Makefiles.am` to enforce having the same standard everywhere.

See also:

- <https://packages.debian.org/search?keywords=gcc>
- https://gcc.gnu.org/gcc-5/porting_to.html