Ian,

Following our discussion, here is the information I sent to lcg-rollout
last week. A few additions for Atlas follow in another mail.

As I told you, with the same recipe, Andrea from CNAF has been able to install a gLite3
WN.

Michel

---------- Forwarded Message ----------
Date: lundi 12 juin 2006 18:33 +0200
From: Michel Jouvin <jouvin@lal.in2p3.fr>
To: LHC Computer Grid - Rollout <LCG-ROLLOUT@LISTSERV.CCLRC.AC.UK>
Subject: Re: LCG 2.7 successfully installed on SL 4.3 (x86_64)

Hi,

A small update on my previous mail regarding applications on SL 43 64-bit WNs (LCG
2.7.0, no time yet to look at gLite 3). We found no new problems other than those already
mentioned and they are now all solved.

- Biomed :
everything has been validated an runs smoothly on SL4

- LHCb :
I discussed the issue of python2.2 hard coded in LHCb requirements
with Joel Closier this afternoon and it is now solved. I wait for his
formal feedback but there should be no problem has somebody from LHCb
already validated that SW is running properly on 64-bit (the main problem in fact).

Atlas :
we solved all problems with analysis jobs. This includes 3 lines
added to CMT requirements to handle properly 64-bit platform and force
compilation in 32-bit mode (this will be included in future releases, I cangive the
information if needed).

- LFC Python API (reported by Atlas) :
this API requires Python 32-bit. But on 64-bit Linux, only 64-bit Python is installed.
Solution is to install python rpm from SL4.3 32-bit (this install only the libraries) and to
install an additional rpm we build that provides only python binaries but with the special
name python32.

I can give all RPMs to anybody interested. Quattor QWG templates (last
version from trunk) are compliant with SL4.3 and require no changes (you just need to
download the 3 RPMs we built).

Michel

--On mercredi 31 mai 2006 23:56 +0200 Michel Jouvin <jouvin@lal.in2p3.fr>
wrote:

> Hi,
>
> In case anybody is interested, I managed to successfully installed a
> complete LCG 2.7 WN (and it should probably be the same for UI as
> dependencies are basically the same) on a (Opteron) machine installed
> with SL 4.3 64-bit. It was a requirement for us as our recent
> procurements required SL4.
>
> This was done with our Quattor installation but should work with other
> types of installation. We used unmodified LCG 2.7 RPMs. Our first attempt
> was done with SL 4.2 but tkinter is missing in this version and it seems
> difficult to find a tkinter RPM compatible with the python version in SL
> 4.2. On the other hand, SL 4.3 includes tkinter, thus it is easier.
>
> To have LCG 2.7 running on SL 4.3 64-bit, first thing is to install
> 32-bit compatibility groups (only compat-arch-support is required by
> middleware but if a job want to rebuild an application using the same
> compiler version as in SL3, it is better to also install
> compat-arch-development). Thus the minimum list of SL groups is (at leas
> this is what we use...!!!) :
>
> core;
> base;
> printing;
> base_x;
> dialup;
> text_internet;
> graphics;
> compat_arch_support;
> compat_arch_development;
> emacs;
> pro_sl_system_tools; # for openldap-clients
> network_server; # for openldap-servers
> development_tools;
> x_software_development;
>
>
> To this basic installation, you need to explicitly add the following RPMs
> from SL4 distribution (most of them are not included in any group or are
> in groups where just one RPM is needed)

>
> "lam", "7.0.6-5", x86_64
> "libaio", "0.3.105-2", x86_64
> "libaio-devel", "0.3.105-2", x86_64
> "words", "3.0-3", "noarch"
> "xorg-x11-xdm", "6.8.2-1.EL.13.25.1", x86_64
> "compat-libstdc++-33", "3.2.3-47.3", "i386"
>
>
> Then you need to add a few RPMs coming from SL3 :
>
> commons-logging-1.0.2-12.i386.rpm
> compat-libstdc++-7.3-2.96.128.i386.rpm
> ElectricFence-2.2.2-15.i386.rpm
> junit-3.8.1-1.i386.rpm
> libgcj-ssa-3.5ssa-0.20030801.48.i386.rpm
> redhat-java-rpm-scripts-1.0.2-2.noarch.rpm
>
> You also have to provide tcl/tk 8.3 libraries that are explicitly
> required by some LCG packages and to have a RPM called libstdc++ v3.2.3
> (i386) intalled (required by classads-g3). For tcl/tk, we built a RPM
> (lal-tcl-tk-lib-8.3-1.0.0-1.i386.rpm) with both libraries and can provide
> it to anybody who need it. For libstdc++, we built a 'placeholder' RPM
> (empty as the libraries are actually already installed) and we can also
> provide it.
>
> After/when installing LCG middleware, you need to replace a few RPMs
> provided by LCG 2.7 by equivalent RPMs now provided as part of the OS :
>
> "j2sdk", "1.4.2_10-fcs", "i586"
> "cog-jar", "1.1-1", "i386"   ?????
>
> And last, you need to remove from LCG install a few RPMs that are now
> part of the OS but with a different architecture.
>
> pkg_del("perl_ldap","0.31-sl3","i386");
> pkg_del("perl-Crypt-SSLeay","0.51-1");
> pkg_del("perl-XML-SAX-Base","1.04-1");
> pkg_del("compat-libstdc++-296","2.96-132.7.2");
> pkg_del("tkinter","2.2.3-6.1","i386");
> pkg_del("perl-ldap","0.31-sl3","i386");
>
> After the successful installation, you need to create /etc/java.conf,
> defining JAVA_HOME as /usr/java/j2sdk1.4.2_10 (instead of _8 in LCG 2.7).
>
>

> Our experience after several weeks running SL4 WNs in our CE (in addition
> to existing SL3 WNs, using node partitions to control which VOs have
> access to SL4 WNs), it seems to work pretty well. We had almost no
> complaint from users and VOs. The 2 main exceptions are currently LHC VOs
> !!!!
>
> - lhcb : LHCb SW explicitly requires python 2.2 (with 2.2 in the path).
> Unfortunatly on SL4, this is python 2.3.
>
> - Atlas/Athena (more a 64-bit issue than a SL4 issue) : we are currently
> working on a problem with analysis jobs when you want to rebuild some
> components. Atlas SW provides its own gcc and unfortunatly it cannot run
> on 64-bit machines. Basically there is no problem to use the gcc 3.2
> provided with SL4 64-bit in 32-bit mode (using -m32) and it seems to
> work. Just we need to sort out how to properly configure the Atlas SW to
> do it transparently for the user.
>
> Next step for us is to validate the installation with gLite3. Our guess
> is that it should not be very different...
>
> Hope this can help.
>
> Michel
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>   **
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