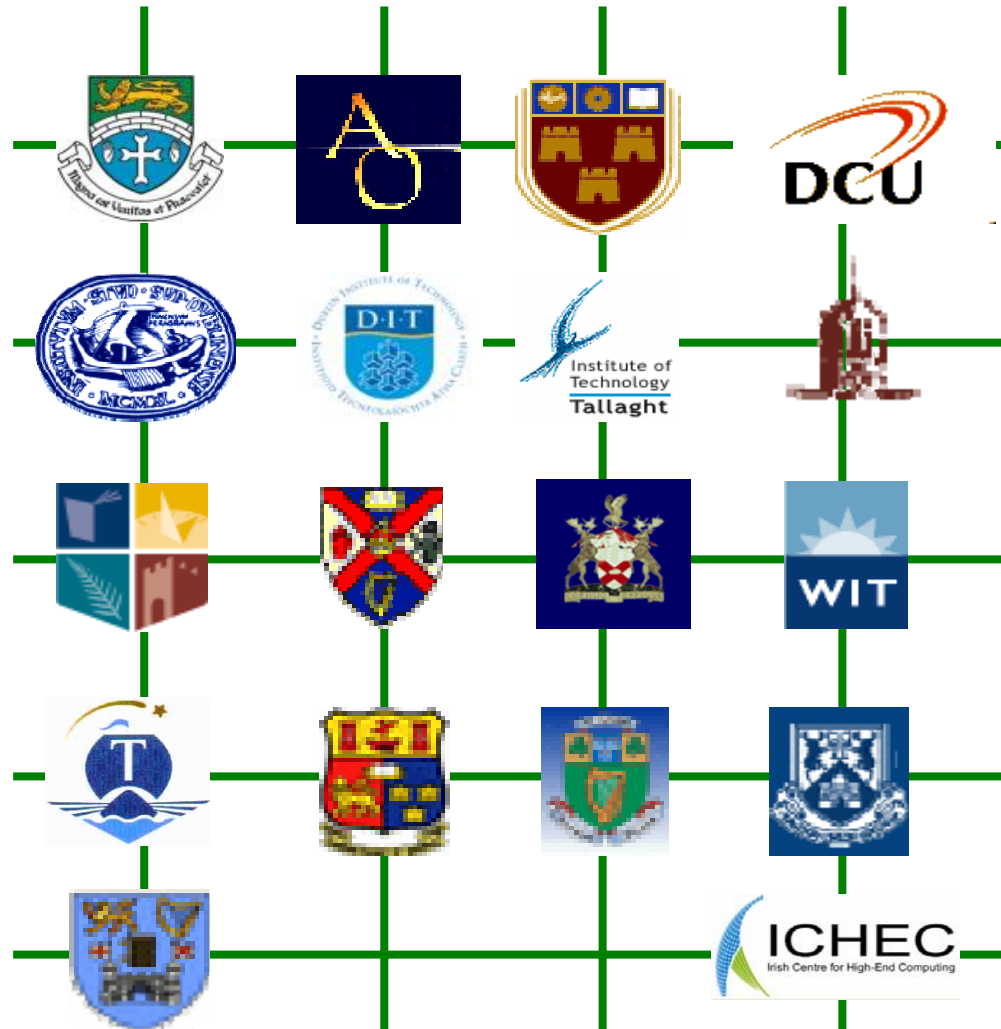




Porting Status and Results of LCG Middleware

Grid-Ireland: The National Computational Grid for Ireland





Resource Issues

Grid-Ireland: The National Computational Grid for Ireland

- Resources may be shared within institution
- Grid usage is not exclusive
- Scientific Linux might not be the agreed platform
- OS choice often determined by (commercial) application support.



Vendor Issues

Grid-Ireland: The National Computational Grid for Ireland

- Vendor will only support their specific solution
 - Eg, recently installed 950 CPU system, vendor would only support SUSE 9.3 based solution.
- Newer hardware support also determines OS choice
 - Driver not available under 2.4.X kernel



Code Issues

Grid-Ireland: The National Computational Grid for Ireland

- GCC > 3.3.5 has stricter ANSI checks
 - Some C++ code no longer compiles
- GCC 4.0 even stricter
- APIs changes sometimes not backwards compatible



Scripting Issues

Grid-Ireland: The National Computational Grid for Ireland

- Bash not installed by default on some systems.
- System commands don't behave the same across some systems (eg ps, sed)
- Most LCG init.d startup scripts only support Redhat function calls
- Hard to decouple some vendor supplied software
 - Perl on solaris assumes SUN CC as compiler when building modules.



Build Targets

Grid-Ireland: The National Computational Grid for Ireland

Grid-Ireland Local Autobuild of LCG2-2_4_0/2_6_0 Workernodes

Workernode Status for a Number of Machines

OS Type	Version	Distro	VDT	Basic	VOMS	RGMA	RM	gfal	WMS	LcFG
Redhat	7.3	RPMS	1.2.2	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
Redhat	9	yum	1.2.2	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
Fedora Core	2	RPMS	1.2.2	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
Centos	4.1	RPMS	1.2.2	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
Suse	9.3	RPMS	1.2.2	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
Debian	Stable	DEBS	1.2.2	DEBS	DEBS	DEBS	DEBS	DEBS	DEBS	DEBS
SL	3.0.5	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS	RPMS
IRIX	6.5.14	tarballs	1.1.14	RPMS	tarball	tarball	tarball	tarball	tarball	tarball
AIX	5.2L	tarballs	tarball	tarball	tarball	tarball	tarball	tarball	tarball	tarball
Darwin	7.8.0	tarballs	tarball	tarball	tarball	tarball	tarball	tarball	tarball	tarball

Colour	Meaning
.	To be Started
.	Started
.	DONE
.	Vendor Built

Dependency Build Pages

- These pages contain the build [dependencies](#) required by all LCG2 packages (currently this page is a work in progress)



Target Status

Grid-Ireland: The National Computational Grid for Ireland

Grid-Ireland LCG-2_4_0/2_6_0 Workernode Ports

VM Status for 6 Linux Platforms and 4 Unix Platforms

OS Type	Centos 4.1	Redhat 9	SL 3.0.4	SuSE 9.3	Redhat 7.3	FC 4	Solaris 10	Darwin 7.7	AIX 6.5	Irix 6.5
OS dump	loopback	loopback	loopback	loopback	loopback	loopback	iso	dump	N/A	N/A
VM build machine	Yes	Yes	Yes	Yes	Yes	No	N/A	N/A	N/A	N/A
VDT build	Yes	Yes	Yes	Yes	Yes	No	Needs pkg	No	No	No
VDT RPM on Web	Yes	Yes	Yes	Yes	Yes	No	Needs pkg	No	No	No
VM test WN machine	Yes	Yes	Yes	Yes	Yes	No	N/A i386/Sparc	N/A XServer	N/A Server	N/A Itself
Basic WN on Web	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
Basic WN installing	Yes	No	No	Yes	No	No	No	No	No	No
Job Submission Tested	Yes	No	No	Yes	No	No	No	No	No	No
Gfal built	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
Gfal on web	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
SFTs passed excluding RGMA	Yes	No	No	Yes	No	No	No	No	No	No
SFTs passed including RGMA	No	No	No	No	No	No	No	No	No	No
Full WN build	No	No	No	No	No	No	No	No	No	No
Full WN tested	No	No	No	No	No	No	No	No	No	No

Colour	Meaning
Red	To be Started
Yellow	Started
Green	DONE
Cyan	Vendor Built



SUSE 9.3 Build

Grid-Ireland: The National Computational Grid for Ireland

Module Name	CVS tag	Customized	README	Build Method	Autotools	Configure	Make	Make install	Make RPM	RPM quality
lcg-guide	HEAD	NO	SUCCESS	Makefile	NA	NA	SUCCESS	SUCCESS	FAILED	FAILED
gacl	v0_9_2	NO	FAILED	Makefile	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-info-main	lcg3_0_23	NO	SUCCESS	Makefile	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-info	lcg3_0_23	NO	SUCCESS	Unknown Method	NA	NA	NA	NA	NA	FAILED
netconf	v1_1_3	NO	FAILED	AutoTools	SUCCESS	SUCCESS	SUCCESS	FAILED	SUCCESS	WARNING
netmon	v1_0_8	NO	SUCCESS	AutoTools	SUCCESS	SUCCESS	SUCCESS	SUCCESS	SUCCESS	WARNING
edg-style	v1_0_0	NO	SUCCESS	Makefile	NA	NA	SUCCESS	SUCCESS	SUCCESS	FAILED
edg-java-tools	v1_0_40	NO	SUCCESS	Makefile	NA	NA	SUCCESS	SUCCESS	SUCCESS	FAILED
edg-java-security	v1_5_11	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-java-data-util	v1_3_23	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-ros	v2_2_2	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-metadata-catalog	v2_2_11	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-rls-server	v2_2_11	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-gsoap-base	v1_1_5	NO	SUCCESS	Ant	NA	NA	SUCCESS	WARNING	SUCCESS	SUCCESS
edg-metadata-catalog-client	v2_3_4	NO	SUCCESS	Ant	NA	NA	SUCCESS	WARNING	WARNING	SUCCESS
edg-ros-client	v2_3_4	NO	SUCCESS	Ant	NA	NA	SUCCESS	WARNING	WARNING	SUCCESS
edg-rls-client	v2_3_2	NO	SUCCESS	Ant	NA	NA	SUCCESS	WARNING	WARNING	SUCCESS
edg-reptor-client	v2_3_6	NO	SUCCESS	Ant	NA	NA	SUCCESS	WARNING	WARNING	SUCCESS
edg-voms-admin	v0_7_6	NO	SUCCESS	Ant	NA	NA	SUCCESS	SUCCESS	SUCCESS	SUCCESS
edg-brokerinfo	v2_1_6	Yes	SUCCESS	AutoTools (Old)	SUCCESS	SUCCESS	SUCCESS	SUCCESS	SUCCESS	WARNING
voms	v1_5_4	Yes	SUCCESS	AutoTools	SUCCESS	SUCCESS	FAILED	FAILED	FAILED	WARNING
voms-httpd	v1_0_5	NO	SUCCESS	AutoTools	SUCCESS	SUCCESS	SUCCESS	SUCCESS	SUCCESS	SUCCESS
workload	lcg2_1_69_4	Yes	SUCCESS	AutoTools	SUCCESS	SUCCESS	FAILED	FAILED	FAILED	FAILED
monitoring	v2_6_10	NO	SUCCESS	AutoTools	SUCCESS	SUCCESS	SUCCESS	SUCCESS	FAILED	SUCCESS



SFT Results

Grid-Ireland: The National Computational Grid for Ireland

Site Functional Tests report

History for site: gridgate05.testgrid

Colours definition

SD	Scheduled downtime	#a3a3a3
JL	Job list match failed	#aab3ff
JS	Job submission failed	#f4876b
CT	Critical tests failed	#f9d48e
NT	Non-critical tests failed	#f2f98e
OK	OK	#b2f98e

St.	Test date	Version	Software Version	Worker Node	CA RPMs Version	BrokerInfo	R-GMA client	CSH test	CopyAndReg. WN -> defaultSE	Copy defaultSE -> WN	Replicate defaultSE to central SE	3rd Party Rep. central SE to defaultSE	3rd Party cp central SE to WN	Delete Replica from defaultSE	GFAL infosys	lcg-cr -> defaultSE	lcg-cp defaultSE -> WN
OK	2005-09-22 17:57:42	LCG-2 4 0	LCG-2 4 0	suse9-testwn.testgrid	OK	OK	FAILED	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	2005-09-22 17:51:10	LCG-2 4 0	LCG-2 4 0	centos4-testwn.testgrid	OK	OK	FAILED	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
OK	2005-09-22 17:41:31	LCG-2 4 0	LCG-2 4 0	centos4-testwn.testgrid	OK	OK	FAILED	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK

Rows displayed: 3

Script written by Piotr Nyczyk (Piotr.Nyczyk@cern.ch)

Done

www.cs.tcd.ie



Build system status

Grid-Ireland: The National Computational Grid for Ireland

- Build on demand system in place
 - builds specified release tags for target OS
- Reasonably complex
- Alpha quality
- Repository for WN RPMS available for testing
- Glite build system not implemented yet



Summary

Grid-Ireland: The National Computational Grid for Ireland

- Portability not an easy issue to solve
- Job submission to CentOS 4 and SUSE 9.3 WN passes all but R-GMA client SFT tests.
- Repository available for testing
 - feedback welcome
 - rpm [http://grid.ie/distribution/LCG-2_4_0/en/i386 lcg_centos41](http://grid.ie/distribution/LCG-2_4_0/en/i386/lcg_centos41)