

CDT Software requirements

Key

field	purpose
Software	Software Package
DICE Version	Version currently available on DICE (SL6)
SI7 Version	Version currently available on SL7 (and supporting repos)
Latest SRPM	Latest SRPM available anywhere
Latest Version	Latest stable version
Comments	...

<u>colour</u>	<u>meaning</u>
Unavailable	No software in place
Feedback	Awaiting feedback from requestors
Needs updating	Upgrade to later version
Needs work	needs tweaking
Signed off	this is what will ship

General Requirements

<u>Software</u>	<u>SL6 Version</u>	<u>SI7 Version</u>	<u>Latest SRPM</u>	<u>Latest Version</u>	<u>Comments</u>
hadoop	0.20.0	-	2.4.1-6	2.7.1	hadoop versioning is interesting. the old cluster was tied to 0.20.0 for teaching. It may be more sensible to ship our own unpackaged copies. Currently running 2.7.1 we need a component and to look at kerberised authentication CDT use has been minimal
kernel	2.6.32-431.23.3.el6.x86_64	3.10.0-123.20.1.el7.x86_64			For Information
python	2.6.6/3.4.1	2.7.5	3.4.2	3.4.3	
gcc	4.4.7 (4.9.1)	4.8.2	4.9.2	4.9.2	(scl version)
OpenCV		2.4.5	3.0.0-1	3.0.0	RT:70852 will bring up to 3.0.0 when it goes sitewide.
docker					RT:70836 Largely stalled waiting KVM and related stuff (we want to use KVM to wrap the docker instances)
boot2docker					RT:70836 as above.
gridengine	6.2u5-10	8.1.8-1	8.1.8-1	8.1.8-1	(actually son of gridengine) component needs heavily revised, probably just use it to set up hosts and user acls

PPAR Requirements

<u>Software</u>	<u>SL6 Version</u>	<u>SI7 Version</u>	<u>Latest SRPM</u>	<u>Latest Version</u>	<u>Comments</u>
haskell-platform	haskell-platform-2013.2.0.0 (7.6.3)	2013.2.0.0 (7.6.3)	2014.2.0.0.1-1.fc22 (ghc-7.8.3)	2014.2.0.0 (ghc-7.8.3)	Latest srpms are in rawhide and unlikely to be stable until Fedora 22
haskell	ghc-7.6.3	ghc-7.6.3	ghc-7.8.4	ghc-7.8.4	We tend to run with the haskell-platform because it gives a nice stable platform for teaching it's not possible to site install multiple versions of ghc.
CGAL	4.0.2-1	-	4.5.1	4.5.2	
python-networkx	1.5-1	1.8.1	1.9.1	1.9.1	using gductions patented inf python stack for 1.9.1

Datascience Requirements

<u>Software</u>	<u>SL6 Version</u>	<u>SI7 Version</u>	<u>Latest SRPM</u>	<u>Latest Version</u>	<u>Comments</u>
Matlab	R2015a	R2015a	R2015a	R2015a	Site license, we'd tend to want to keep the same version across all DICE
R	3.0.1	3.2.2	3.2.2	3.2.2	We may wish to build a seperate version against openblas
iPython	1.1.0	3,2,1	3.2.1	2.3.0-1 / 2.4	
Spark	-	-		1.2.1	requires hadoop
Theano	0.6	0.6	-	0.6	
sklearn (python-scikit-learn)	-	0.16.1-0	0.15.2	0.15	
SciPy	0.14.0	0.12.1	0.14.1	0.15.0	
numpy	1.8.2	1.7.1	1.9.1	1.9.1	
pandas	0.14.1	0.15.2-1	0.15.2	0.15.2	
matplotlib	-	1.3.1	1.3.1 (1.4.2)	1.4.2	1.4.2 available for SuSe , build deps are evil
ATLAS	3.8.4	3.10.1	3.10.1	3.10.2	
OpenBLas	-	0.2.13	0.2.13	?	
LApack	3.2.1	3.4.2	3.5.0	3.5.0	
Postgresql	9.3.4	9.2.7	9.4.1	9.4.1	
Storm	-	-	-	0.9.3	requires hadoop

DICE/Management Requirements

<u>Software</u>	<u>SL6 Version</u>	<u>SI7 Version</u>	<u>Latest SRPM</u>	<u>Latest Version</u>	<u>Comments</u>
nagios integration	-	-	-	-	Some kind of nagios monitoring of cluster hardware and the software infrastructure somehow integrated with gridengine and or hadoop
openstack	Grizzly/Icehouse	Juno	Kilo	Kilo	big can of worms
ganglia/too hot	3.1.7	-	3.6.0	3.6.1	performance and "climate" monitoring (need to write a component)
gluster/shared filesystem	3.3.0	3.6.0	3.6.0(3.7.5)	3.6.6/(3.7.5)	stable/(development) we need a shared filesystem to get gridengine working. We need to write a component to manage this
ipmi/consoles	-	-	-	-	It just works

Openstack

<u>component</u>	<u>Description</u>	<u>Required</u>	<u>Availability</u>	<u>Dice tech</u>	<u>Comments</u>
Nova	Compute				
Swift	Object Store				
Cinder	block storage				
Neutron	Networking				
Horizon	dashboard				
Keystone	Identity service				
Glance	Image service				
Ceilometer	Telemetry				
Heat	Orchestration				
Trove	Database				
Ironic	Bare metal provisioning				
Zaquer	Multiple tenant Cloud Messaging				
Sahara	Elastic map Reduce				

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Topic revision: r16 - 01 Mar 2017 - 10:19:45 - IainRae

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