WLCG Information System Status

Maria Alandes Pradillo, CERN
CERN IT Department, Support for Distributed Computing Group
GDB 9th October 2013
Contents

• BDII release highlights
• Where to find the BDII
• BDII deployment status
• GLUE 2 validation status
• glue-validator in Nagios
• EGI plans for GLUE 1 retirement
• Information System Documentation
• Next steps
BDII release highlights

March 2013
bdii 5.2.17-1
• LDAP optimisations for GLUE 2.0 (DB indexes and cache)
• ARC integration

May 2013
bdii 5.2.20-1
• GLUE 2 delete fix
• LDAP optimisations for GLUE 2 (DB config)

August 2013
bdii 5.2.21-1
• Security vulnerability
• bdii-update daemon bug fixes

September 2013
glite-info-provider-ldap 1.4.6-1
• Rolled back changes for ARC integration since Contact and Location objects are missing

October 2013
glite-info-provider-ldap 1.4.8-1
• Missing published sites fix

http://gridinfo.web.cern.ch/sys-admins/bdii-releases
Where to find the BDII

• EMI 2 and 3 repositories
  – Synchronised for BDII versions
• UMD 2 and 3 repositories
  – Not aligned for BDII versions
    • UMD 2 contains older versions
• EPEL 5 and 6 repositories
  – Only for the resource BDII
  – Status of pending packages:
    https://twiki.cern.ch/twiki/bin/view/EMI/BDIIEPELstatus
• Minimum versions for WLCG
  – https://twiki.cern.ch/twiki/bin/view/LCG/WLCGBaselineVersions
# BDII deployment status

<table>
<thead>
<tr>
<th>Package</th>
<th>EMI 2</th>
<th>EMI 3</th>
<th>UMD 2</th>
<th>UMD 3</th>
<th>EPEL 5</th>
<th>EPEL 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>bdii</td>
<td>5.2.22-1</td>
<td>5.2.22-1</td>
<td>5.2.12-1</td>
<td>5.2.21-1 (*)</td>
<td>5.2.22-1</td>
<td>5.2.22-1</td>
</tr>
</tbody>
</table>

| (* ) WLCG Baseline |

<table>
<thead>
<tr>
<th>EGI</th>
<th>BDII endpoints</th>
<th>WLCG</th>
<th>BDII endpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td>site BDII</td>
<td>407</td>
<td>420</td>
<td>337</td>
</tr>
<tr>
<td>top BDII</td>
<td>104</td>
<td>98</td>
<td>88</td>
</tr>
</tbody>
</table>

### site BDII

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16.03.2012</td>
<td>LDAP improvements</td>
<td>5.2.10</td>
<td>21</td>
<td>15</td>
<td>13</td>
<td>13</td>
<td>5.2.10</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>09.08.2012</td>
<td>IPv6 support</td>
<td>5.2.12</td>
<td>329</td>
<td>292</td>
<td>169</td>
<td>164</td>
<td>5.2.12</td>
<td>107</td>
<td>82</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td>31.08.2012</td>
<td>EPEL only</td>
<td>5.2.13</td>
<td>19</td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>5.2.13</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>11.03.2013</td>
<td>ARC integration</td>
<td>5.2.17</td>
<td>20</td>
<td>13</td>
<td>7</td>
<td>5</td>
<td>5.2.17</td>
<td>6</td>
<td>9</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>31.05.2013</td>
<td>GLUE 2 Delete bug</td>
<td>5.2.20</td>
<td>18</td>
<td>23</td>
<td>8</td>
<td>5</td>
<td>5.2.20</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>05.08.2013</td>
<td>Security Vulnerability</td>
<td>5.2.21</td>
<td>0</td>
<td>65</td>
<td>26</td>
<td>26</td>
<td>5.2.21</td>
<td>0</td>
<td>26</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>09.09.2013</td>
<td>Contact and Location</td>
<td>5.2.22</td>
<td>0</td>
<td>0</td>
<td>105</td>
<td>123</td>
<td>5.2.22</td>
<td>0</td>
<td>0</td>
<td>48</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>407</td>
<td>420</td>
<td>337</td>
<td>341</td>
<td></td>
<td>132</td>
<td>137</td>
<td>131</td>
<td>139</td>
</tr>
</tbody>
</table>

### top BDII

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>16.03.2012</td>
<td>LDAP improvements</td>
<td>5.2.10</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5.2.10</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>09.08.2012</td>
<td>IPv6 support</td>
<td>5.2.12</td>
<td>55</td>
<td>46</td>
<td>31</td>
<td>30</td>
<td>5.2.12</td>
<td>24</td>
<td>21</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>31.08.2012</td>
<td>EPEL only</td>
<td>5.2.13</td>
<td>12</td>
<td>8</td>
<td>8</td>
<td>3</td>
<td>5.2.13</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>11.03.2013</td>
<td>ARC integration</td>
<td>5.2.17</td>
<td>15</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>5.2.17</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>31.05.2013</td>
<td>GLUE 2 Delete bug</td>
<td>5.2.20</td>
<td>17</td>
<td>20</td>
<td>10</td>
<td>7</td>
<td>5.2.20</td>
<td>7</td>
<td>9</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>05.08.2013</td>
<td>Security Vulnerability</td>
<td>5.2.21</td>
<td>0</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>5.2.21</td>
<td>0</td>
<td>7</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>09.09.2013</td>
<td>Contact and Location</td>
<td>5.2.22</td>
<td>0</td>
<td>0</td>
<td>25</td>
<td>32</td>
<td>5.2.22</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>104</td>
<td>98</td>
<td>88</td>
<td>88</td>
<td></td>
<td>47</td>
<td>48</td>
<td>40</td>
<td>48</td>
</tr>
</tbody>
</table>
GLUE 2 validation for middleware

- Validation is now finished and known issues have been identified
  - [https://twiki.cern.ch/twiki/bin/view/EGEE/ISproviders](https://twiki.cern.ch/twiki/bin/view/EGEE/ISproviders)
  - Developers are slowly fixing bugs
- Storage Capacity in GLUE 2
  - Storage attributes are not published in the same way by all services
  - Is there a need for a usage document for GLUE 2?

### Storage Capacity

<table>
<thead>
<tr>
<th>Name</th>
<th>Service Capacity</th>
<th>Share Capacity</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nearline</td>
<td>Online</td>
<td>Nearline</td>
</tr>
<tr>
<td>dCache</td>
<td>Total, Used</td>
<td>Total, Used, Free</td>
<td>Total, Used</td>
</tr>
<tr>
<td>StoRM</td>
<td>Reserved=0, Total, Used, Free</td>
<td>Reserved=0, Total, Used, Free</td>
<td>Reserved=0, Total, Used, Free</td>
</tr>
<tr>
<td>DPM</td>
<td>-</td>
<td>Total, Used, Free</td>
<td>-</td>
</tr>
</tbody>
</table>
GLUE 2 validation for sites

• No September report as such
  – As of next month validation will be automated (see slide: glue-validator in Nagios)
  – Last weeks focused on getting glue-validator ready for production

• Some statistics in the next slide
  – Excluding known issues
  – Including known issues
  – Per error, warning and info message
GLUE 2 validation for sites

GLUE 2.0 site validation statistics Oct-13 (exclude-known-issues)

- Errors: 16462
- Warning: 2080
- Info: 12305

GLUE 2.0 site validation statistics Oct-13 (all)

- Errors: 16619
- Warning: 34878
- Info: 50475

Bar charts showing the distribution of errors, warnings, and information messages for GLUE 2 validation sites.

Recommended attribute: 40000
Mandatory attribute: 35000
Wrong type: 30000

Bar charts showing the distribution of recommended, mandatory, and wrong type attributes for GLUE 2 validation sites.

GDB 9th October 2013
• EGI plans to deploy glue-validator in production
  – Final version on midmon 02.10.2013
  – Validation by COD/ROD team 10.10.2013
  – glue-validator in operations on 13.11.2013
• Sites will get GGUS tickets for critical errors
• Training on glue-validator at the EGI TF
EGI plans for GLUE 1 retirement

• Test GLUE 2 information consumption
  – Are all clients and services interacting with the IS ready to consume GLUE 2?
  – Target date: 2014 Q1

• Stop support of GLUE 1 as of May 2014
  – If no blocking issues are found
  – How will the end of support be actually implemented?
    • Modify information providers so they don’t publish GLUE 1?
      – This will take time!
    • This actually means that GLUE 1 information won’t be maintained any more after this date
EGI plans for GLUE 1 retirement

• Start getting ready for this:
  – Stop using lcg-info and lcg-infosites
    • They only query GLUE 1 information
  – Start using ginfo
    • It queries GLUE 2 information
    • Available in EPEL
      – http://dl.fedoraproject.org/pub/epel/5/x86_64/ginfo-1.0.2-1.el5.noarch.rpm
    • User guide and man page available
      – http://gridinfo.web.cern.ch/users/ginfo
    • Are all the needed use cases covered in ginfo?
      – If not, please let us know via GGUS!

• But the what about OSG resources?
  – This is an issue for WLCG!
Information System documentation

http://gridinfo.web.cern.ch/

- New releases
- Known Issues
- ginfo user guide
- glue-validator guide

Welcome
In this page you will find documentation about the Grid Information System organised in the following way:

- Information System for Sys Admins
- Information System for Users
- Developers Resources
- GLUE
- Useful Links

Useful Links
- Grid Information System Introduction
- Report an incident or a request: GGUS
- Contact us: project-grid-info-support
Next steps

- Monitor glue-validator in production
  - Tune glue-validator with feedback from sites

- Follow up open bugs in middleware information providers
  - Focus on storage capacity attributes and numbers
  - Missing use cases for the GLUE 1 retirement campaign
    - In particular for ginfo

- Get EPEL packaging status