

EMI 3 (Monte Bianco) Highlights

Cristina Aiftimei (INFN)

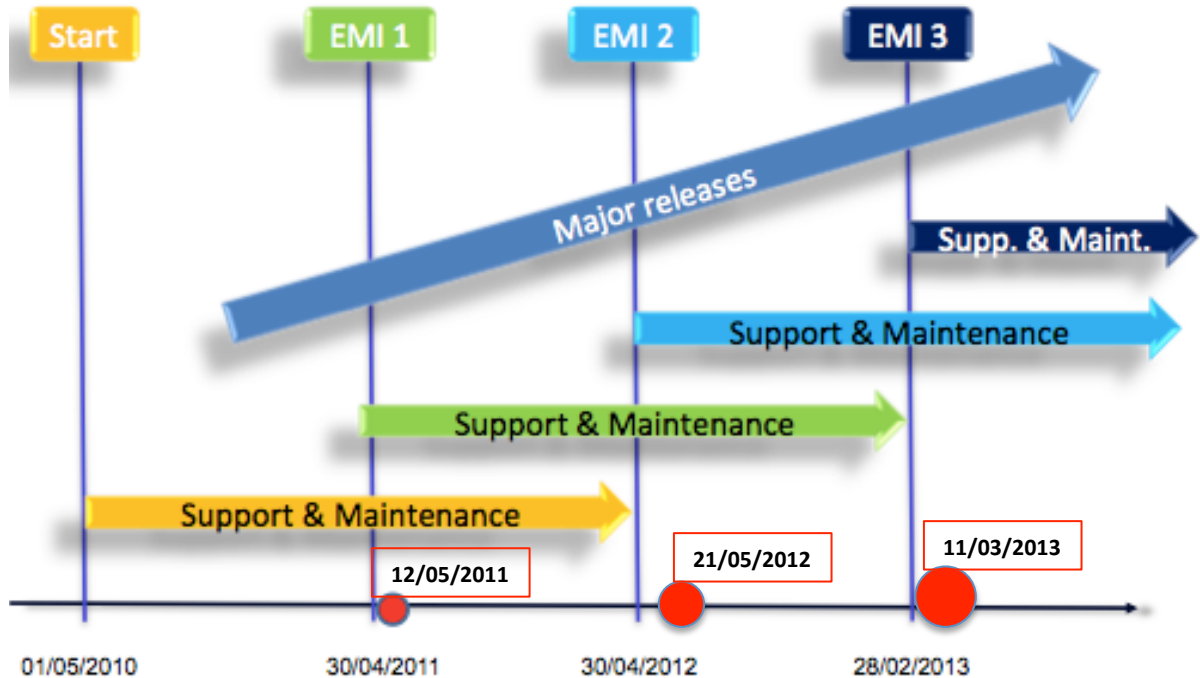
EMI Release Manager

WLCG GDB

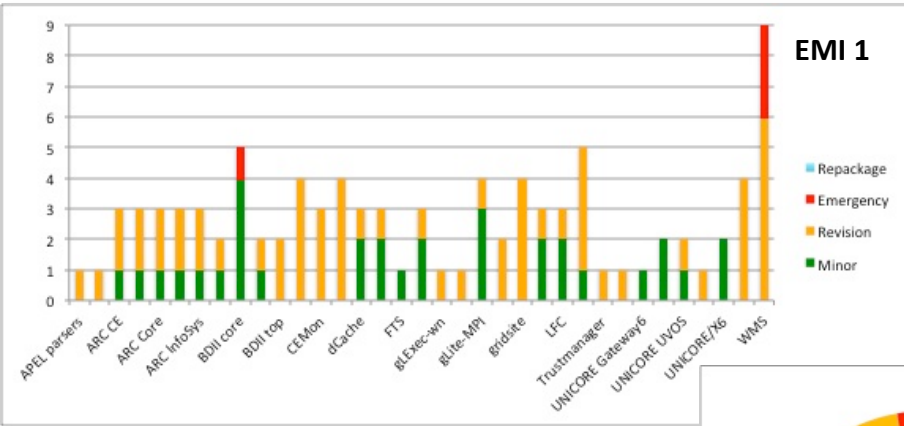
KIT, 13th March 2013

- EMI Releases
- EMI 3 Major & Backward incompatible changes
- Upgrade paths from previous versions
- Last updates

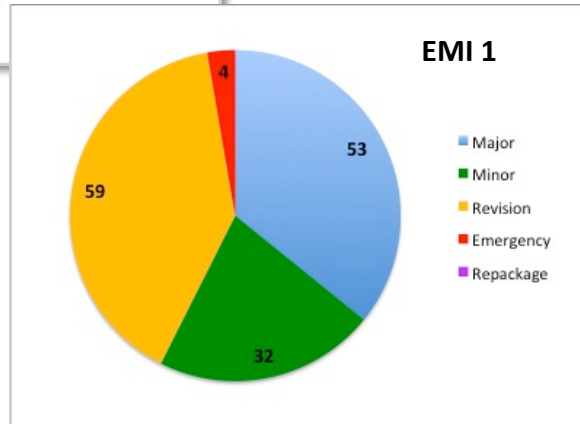
EMI Timelines



EMI Products Updates (1)



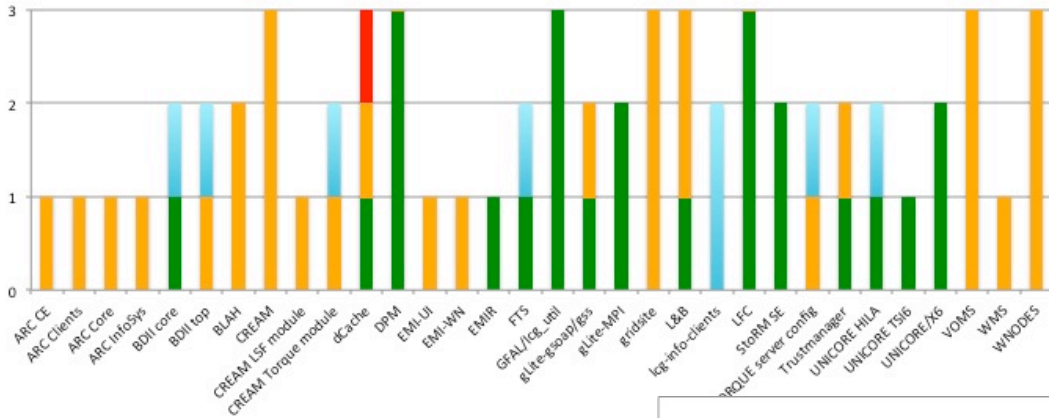
- 23 EMI 1 Updates
- 148 products



EMI Products Updates (2)

EMI 2

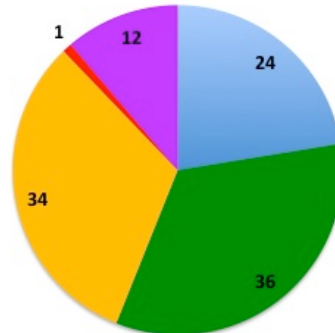
- Repackage
- Emergency
- Revision
- Minor



- 9 EMI 2 Updates
- 107 products

EMI 2

- Major
- Minor
- Revision
- Emergency
- Repackage



EMI Products (3)



| | Major | Minor | Revision | Emergency | Repackage | Total |
|-------|------------|-----------|-----------|-----------|-----------|------------|
| EMI 1 | 53 | 32 | 59 | 4 | 0 | 148 |
| EMI 2 | 24 | 36 | 34 | 1 | 12 | 107 |
| EMI 3 | 28 | 10 | 4 | 0 | 8 | 50 |
| | 105 | 78 | 97 | 5 | 20 | 305 |

More information can be found at:

- [EMI Release Performance](#)

- [EMI 3 released on 11th March, 2013](#)

- 3rd snapshot, ending point of ~ a year (10months) of development, testing & certification

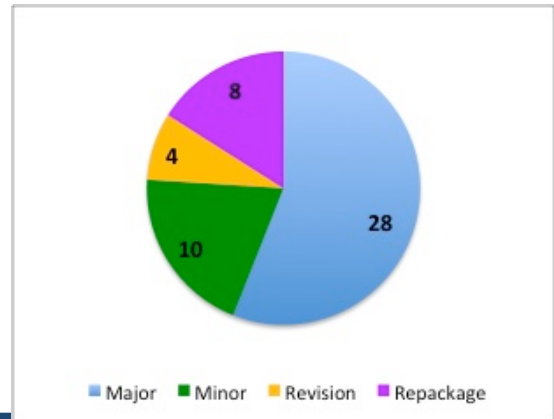
- 50 products

- Full support for SL5 and SL6 (x86_64), partial Debian6 support

- 480 (SL5), 474 (SL6)
- 230 (Deb6) packages

- Latest builds:

- [SL5/x86_64](#)
- [SL6/x86_64](#)
- [Deb6](#)



- The release snapshot is based on the achievement of a set of “acceptance criteria” (certification, package formats, documentation, etc)
 - Mandatory inter-product (integration) tests
 - Standard compliance tests
 - *litmus (WebDAV), GlueValidator, EMI CAR validator, StARval, several EMI-ES testsuites, CANI*

- Security:
 - The first release of the EMI Security Token Service (STS) that eases the use of x509-based infrastructures for end-users;
 - wider adoption of the Common Authentication Library (CAnL)
- Compute
 - Implementation of the EMI ES specifications across all compute element services
- Data:
 - consistent support for secure HTTP access in preparation of EMI HTTP federation service;
 - adoption of StAR specifications;
 - new FTS3 service (with EMI 3 first update)

- Information Systems and monitoring
 - Improved version of the EMIR service registry with all EMI services being able to send registration records.;
 - improved set of NAGIOS probes for all supported services;
 - completion of the messaging-based (SSM2) accounting probes for EMI CEs and SEs supporting CAR and StAR standard accounting record formats.
- Not released: ARGUS-EES, CREAM, FTS3, HYDRA
- See –
[Reference for Major & Backward \(In\)Compatibilities Changes & Upgrade Paths](#)

EMI 3 backward incompatibilities



- APEL (parsers, publisher, SSM):
 - All the code has been rewritten (python), so all changes are 'backward incompatible', including a new database schema.
 - However, no other product depends on the code
 - For the Parsers - Upgrade installation is possible if necessary.
 - For the Publisher - Upgrading from an existing installation is not sensible, since the packages, dependencies and database schema are all different.
- ARC:
 - ngconfigtest is renamed to arc-config-check, installs to libexec instead of bin and is packaged with A-REX instead of common package.
 - Support for per-user control directories in A-REX is removed, as well as corresponding "control" option from arc.conf.
 - GridFactory back-end & RLS support are removed
 - EMI-ES rendering: one Endpoint per port-type including data capabilityxrootd DMC is moved out of plugins-globus package and into a new package nordugrid-arc-plugins-xrootd
 - Upgrade – is straight fwd via binary updates

- CANL:
 - Declaration of function `canl_io_connect()` has changed, it takes different attributes
 - Trustmanager migration to CANL
 - Upgrade is possible - As soon as the depending application introduces a dependence on `canl v. 2`, it will be pulled automatically.
- dCache:
 - dCache installations that have previously been in the `/opt` layout need to be migrated to the FHS compliant layout. Doors and head nodes have to be updated at the same time. NFSv4.1 door and pools are incompatible and have to be updated at the same time.
 - Compatibility - if NFS4.1 is not used, then 2.2 doors, head nodes and SRM can be mixed with pools of releases 1.9.12-11, 1.9.13-4 or newer. Doors and head nodes have to be updated at the same time.
- Delegation Java:
 - Removal of long deprecated methods from `GrDPX509Util.java`
 - Slight changes in the API due to migration to CANL and lack of `InitSecurityContext`.

EMI 3 backward incompatibilities



- GridSite:
 - Unused components removed: gsexec, slashgrid, gridsite-copy.cgi and gridsite-storage.cgi
 - gridsite_mod internals have been significantly refactored and new authentication features have been introduced by a dependence on EMI's common authentication library (caNI). Rarely used programs (gsexec, slashgrid) have been removed from the distribution Upgrade is possible
 - Upgrade from previous EMI releases is supported. No extra steps are necessary.
- L&B:
 - DB schema change. Configuration scripts update the DB automatically, manual update script provided.
 - Data structures changed, resulting in binary incompatibility of libraries. Rebuild of depending code required.
- UNICORE CLIENT6, Registry6, UNICORE/X6:
 - Use the EMI Common authentication library (CANL) for credential handling, will require configuration changes
 - the property file format has changed, and that the use of a property file is now mandatory. Details can be found in the UCC manual.
 - The "backward incompatible" feature (CANL adoption) means only that server-side configuration files MUST be updated, but older clients will still work.

- VOMS:
 - VOMS Java APIs v. 3.0.0
 - *a complete redesign of the VOMS Java APIs based on the EMI Common Authentication Library.*
 - *Services and clients that want to move to this version will need to adapt their code to the new API.*
 - *v. 2.0.10 are released in EMI 3 to support those clients that haven't migrated to the new API.*
 - VOMS clients v. 3.0.0
 - *is a complete redesign of the VOMS clients based on the new VOMS Java API v. 3.0.0*
 - *the new clients maintain the same interface as the 2.0.x one*
 - *the output from the scripts has changed to provide more useful information*
 - *Unused options of vomd-proxy-init are removed (-include, -includeac, -separate,-list...)*
 - VOMS admin server v. 3.0.0
 - *introduces a new deployment model for the service - one daemon process is run for every VO configured*
 - *A separate port will have to be chosen for each VO and advertised to interested clients using the usual channels.*
 - Upgrade is possible:
 - *following documentation*
 - *VOMS is no longer configured with YAIM.*

- 2 update cycles
 - 21 March & 18 April
 - EMI 1 – security fixes for CREAM & CEMon
 - EMI 2 - AMGA, CREAM, CREAM GE module, CLUSTER, HYDRA, Pseudonymity
 - EMI 3 – ARGUS EES, CREAM, DPM/LFC, FTS3, L&B, Hydra



Thank you

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