

# Testing issues in the move from EGEE to EGI

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- Current status of the testing process.
- Testing in the product team era, food for thought.
- A proof of concept for product team dependencies.

	<i>Test Plan</i>	<i>Tests</i>	<i>Certif. Info</i>	<i>Test Reports</i>
AMGA	Green	Yellow	Green	Blue
BDII	Red	Yellow	Yellow	Blue
BLAH	Red	Green	Red	Green
CE (LCG)	Red	Red	Yellow	Blue
CREAM	Yellow	Green	Red	Blue
dCache	Red	Green	Green	Blue
DPM	Yellow	Green	Green	Blue
FTS	Yellow	Green	Green	Blue
GFAL	Red	Green	Green	Blue
GLESEC	Yellow	Yellow	Yellow	Blue
HYDRA	Green	Green	Green	Blue
LB	Yellow	Green	Green	Blue
LCAS-LCMAPS	Red	Red	Yellow	Blue
LCG_UTILS	Red	Green	Green	Blue
LFC	Yellow	Yellow	Green	Blue
MyProxy	Red	Yellow	Red	Blue
SCAS	Green	Green	Green	Yellow
SD	Red	Red	Red	Blue
UI	Green	Green	Green	Blue
VOBOX	Red	Green	Green	Blue
VOMS	Yellow	Yellow	Green	Green
WMS	Green	Green	Red	Blue
WN	Red	Green	Green	Green
YAIM	Red	Green	Green	Blue

<https://twiki.cern.ch/twiki/bin/view/EGEE/SA3Testing>

Green	Complete
Yellow	Incomplete
Red	Missing
Blue	Missing, not critical

- Test plans are growing
- Without test plans it is hard to state whether tests are complete or not
- Certifier information are very valuable
- Test reports are also useful
- Regression tests

- **Completing test plans for each service and review the available tests, tests will be re-used.**
- **New certifiers will profit from our current experience, provided that documentation is present for each service.**
- **Writing more regression tests.**
- **Porting, whenever possible, tests into Nagios.**



- Most of the current software has been built without following a documented software development process (SDP).
- Requirements documents are missing (the new authz service is the exception), as well as some end user documentation.
- Test Plans are being built.

## *Especially for new services:*

- *product teams have to adopt a clear SDP and produce artifacts essential for the testing/certification phase,*
- *documentation and testing have to be seen as a worthwhile investment.*

- **“Product teams will be completely responsible for delivering, to state certified, working, deployable, and production quality software”**
  - Deployment, testing and certification will be done within product teams.
- **Issues and pitfalls:**
  - testing being done by developers,
  - testing being biased by developers,
  - testers/developers ratio.
- **Recommendations**
  - separate roles,
  - clearly defined interface between developers and testers.

- **Product teams cannot be really independent for what concerns testing.**
- **Product teams have *weak* and *strong* dependencies on other product teams.**
  - Weak: testing x, PTx has to use a production version of y
    - e.g. lcg\_utils – dCache
  - Strong: testing x, PTx has to install and/or run PTy tests
    - e.g. dCache = lcg\_utils
- **Weak dependencies need a stable, production-like, certification testbed.**
- **Strong dependencies are obstacle to expertise decentralization and to the autonomy (e.g. test frameworks) of product teams.**

 weak dependency  
 strong dependency

	AMGA	BLAH	CE (LCG)	CREAM	dCache	DPM	FTS	GFAL	GLEXEC	HYDRA	LB	LCAS-LCMAPS	LCG_UTILS	LFC	MyProxy	SCAS	SD	BDII	UI	VOBOX	VOMS	WMS	WN	YAIM
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LCG_UTILS 3																								
LFC 4																								
MyProxy 4																								
SCAS 4																								
SD 4																								
BDII 15																								
UI 13																								
VOBOX 13																								
VOMS 5																								
WMS 6																								
WN 15																								
YAIM 19																								



- Removing critical services with lots of strong dependencies: UI, WN, VOBOX, BDII, WMS, and grouping by product teams.

PD*	AMGA	BLAH	CREAM	CE (LCG)	dCache	DPM	FTS	GFAL	LCG_UTILS	LFC	LCAS-LCMAPS	SCAS	GLEXEC	HYDRA	LB	MyProxy	SD
0	AMGA 0																
0	BLAH 0	Grey	Yellow	Yellow													
0	CREAM 0	Yellow	Grey								Yellow		Yellow				Yellow
0	CE (LCG) 0			Grey							Yellow				Yellow		
1	dCache 2				Grey	Yellow	Yellow	Red	Red	Yellow							Yellow
0	DPM 0				Yellow	Grey	Yellow	Red	Red	Yellow							Yellow
	FTS 0				Yellow	Yellow	Grey	White	White	White							Yellow
	GFAL 0				Yellow	Yellow	White	Grey	White	White							Yellow
	LCG_UTILS 0				Yellow	Yellow	White	White	White	White							Yellow
	LFC 0				Yellow	Yellow	Yellow	Red	Red	Grey							Yellow
2	LCAS-LCMAPS 2		Red	Red							Grey	Red	Red	Red			
	SCAS 0										Grey	Red	Red	Red			
	GLEXEC 1		Red								Yellow	Yellow	Grey				
	HYDRA 0				Yellow	Yellow				Yellow				Grey			
0	LB 0														Grey		
1	MyProxy 1						Red									Grey	
1	SD 1						Red										Grey

PD = Product teams dependencies

*...what is the actual degree of independence among product teams for what concerns testing/certification?*

**Not many this time...**

**<https://twiki.cern.ch/twiki/bin/view/EGEE/SA3Testing>**