SAM/ARGO Status update & PY5 Roadmap

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Overview of the SAM/ARGO activities

P1: ARGO (EGI-TSA4.10)

- **Remove Oracle dependency**
- **Service, site NGI A/R + VO A/R**
- **Availability Profiles**
- **Custom factors**
- **Recomputation management**
- **Decouple WebAPI from WebUI**

P2: SAM Ops (EGI Core)

- **SAM Central Services migration**
- **Operation of Central Services**
- **GGUS SU (combined 2nd & 3rd level)**
- **Maintenance**
  - **Bug fixing**
  - **Probes for SAM central**
  - **Integration of new probes**
  - **Coordination**
- **Migration to ARGO**

P3: ARGO Dev (EGI-TJRA2.1)

- **Add status results**
- **Enhance metric store**
- **Enhance factor support**
- **Nagios Regional:**
  - **Remove MyEGI**
  - **Remove MRS**
  - **New ATP component**
  - **Modify POEM**
  - **Refactor MyEGI API?**
  - **Migrate to RHEL 6**
- **Gridmon**
  - **Refactor MyEGI API**
  - **Migrate to RHEL 6**

Overview of the SAM/ARGO activities
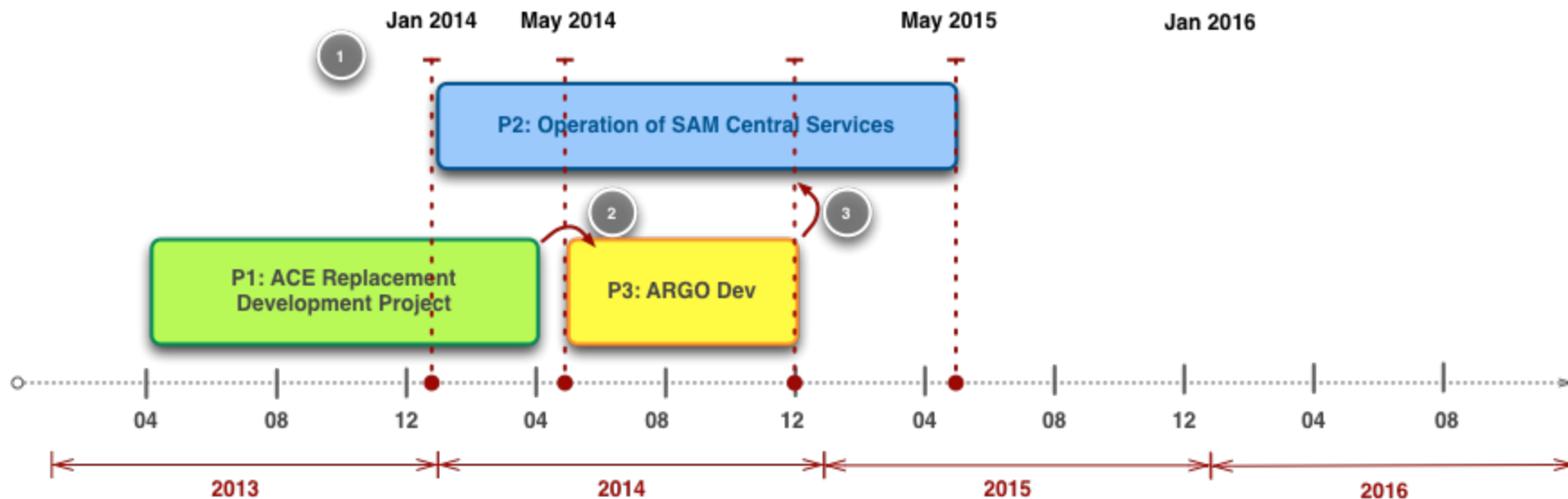
1. Probably we will have to start the project before EGI-InSPIRE ends as after April, CERN will not have any effort for assisting with the migration.

2. There is a one month gap, between the end of P1 and the start of P3

3. The migration in the 2nd year of P2 has been scheduled to coincide with the end of P3.

The mini project (EGI-TSA4.10)

- Consortium: GRNET, CNRS, SRCE

- Goals:

  - A replacement for the ACE computation engine based on open source component

  - Provide service, site, NGI and VO A/R results

  - Support of multiple Availability Profiles

  - Support of Custom Factors

  - Builtin support for Recomputations

  - Decouple Web API from Web UI

ARGO

- Open source implementation
- Compute and storage engine based on Hadoop and HDFS
- Can run in cluster mode and in standalone mode

ARGO: Improvements

- Supports multiple Availability Profiles
- Provides and engine for scalable computations
- Tracks topology information
- Supports custom factors
- Supports recomputations
- All the functionality exposed through an API

Architecture
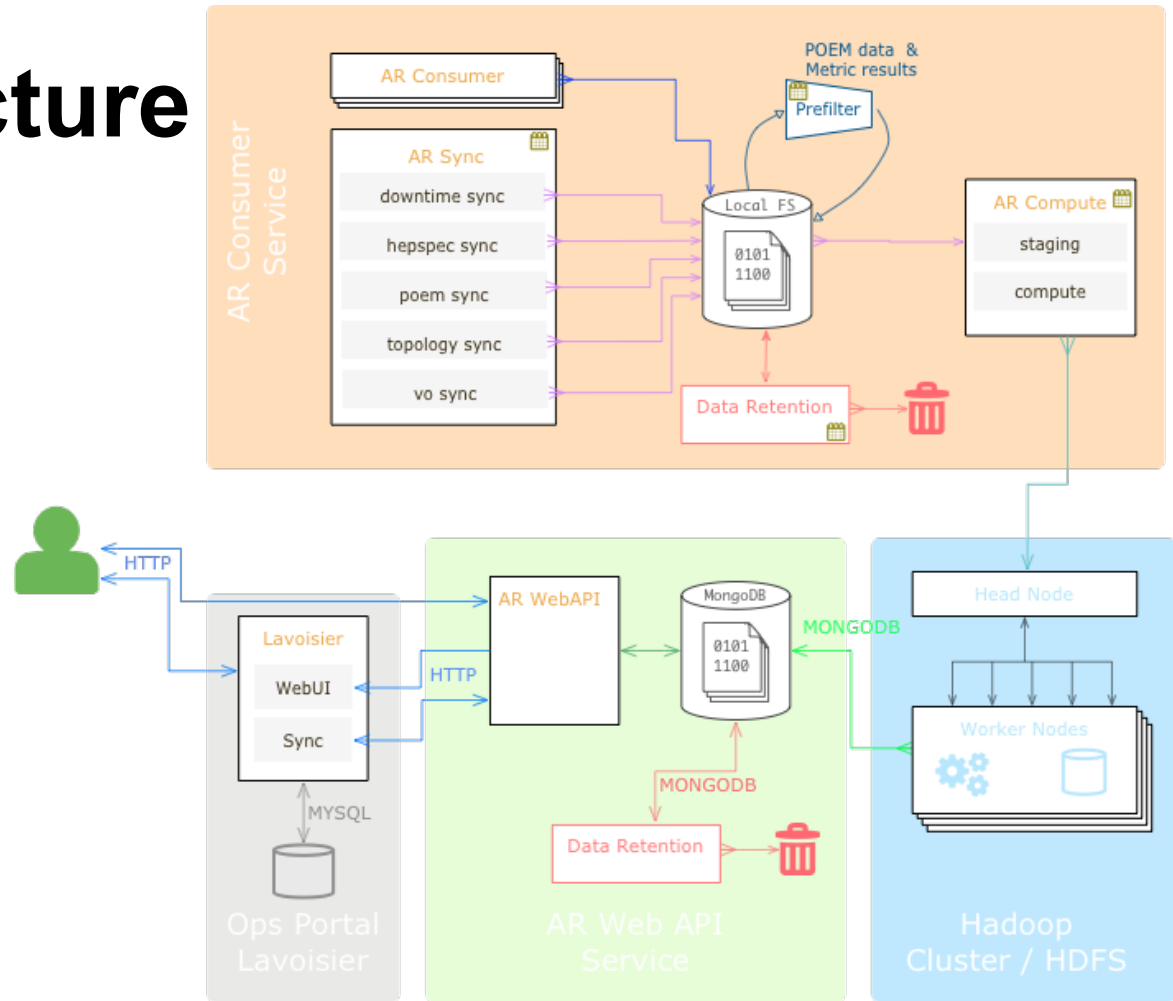
EGI-TJRA2.1

Evolution of the ARGO platform:

- Add status results & enhance metric store
- Enhance custom factors support
- Enhance the UI component of the OPS portal
- Nagios Regional:
    - Remove MyEGI & MRS
    - New ATP component
    - Modify POEM
    - Refactor MyEGI API
    - Migrate to RHEL 6
- Gridmon
    - Refactor MyEGI API
    - Migrate to RHEL 6

Duration: 8 Months (May - December 2014)

Partner	PM
GRNET	3.5
CNRS	3.5
SRCE	3.0

PY5 Roadmap

EGI TJRA2.1		Start Date:	01/05/2014								
								2014				
Task	**Start Date**	**End Date**	**Duration (days)**								
			Date:	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WebAPI	01/05/2014	31/12/2014	245								
Status: Data store changes for integration with API	01/05/2014	30/06/2014	61	█	█						
Status: Migration to new schema	01/05/2014	30/06/2014	61	█	█						
Status: Return statuses at Site level	01/07/2014	30/09/2014	92			█	█	█			
Status: Return statuses at Service Flavor level	01/07/2014	30/09/2014	92			█	█	█			
Status: Return statuses at Service Endpoint level	01/07/2014	30/09/2014	92			█	█	█			
Status: Filter results per VO	01/07/2014	30/09/2014	92			█	█	█			
Status: Filter results for a specific Service Flavor	01/07/2014	30/09/2014	92			█	█	█			
Status: Filter results for a Specific Service End Point	01/07/2014	30/09/2014	92			█	█	█			
Status: Filter results for a specific period	01/07/2014	30/09/2014	92			█	█	█			
Status: Return statuses at Metric level	01/10/2014	31/12/2014	92						█	█	█
Status: Return Raw Metric result	01/10/2014	31/12/2014	92						█	█	█
Status: Filter results for a specific Profile	01/10/2014	31/12/2014	92						█	█	█
Status: Filter results for a specific NGI	01/10/2014	31/12/2014	92						█	█	█
Status: Filter results for a specific Site	01/10/2014	31/12/2014	92						█	█	█
Factors: Return factor per site (to be used for the Treemap in the webui)	01/05/2014	30/06/2014	61	█	█						
Factors: New data store and schema implementation	01/05/2014	30/06/2014	61	█	█						

PY5 Roadmap

EGI TJRA2.1			Start Date:	01/05/2014						
Task	Start Date	End Date	Duration (days)	2014							
			Date:	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
WebUI	01/05/2014	31/12/2014	245								
Migration to latest version of Lavoisier	01/05/2014	30/06/2014	61								
Integration of new theme	01/05/2014	30/06/2014	61								
Implemantation of X509 authentication	01/05/2014	30/06/2014	61								
Use of GOCDB roles for fine grained access control	01/05/2014	30/06/2014	61								
Status: Show status at Site level	01/07/2014	30/09/2014	92								
Status: Show status at Site Flavor level	01/07/2014	30/09/2014	92								
Status: Show status at Service Endpoint level	01/07/2014	30/09/2014	92								
Status: Show status at Metric level	01/07/2014	30/09/2014	92								
Status: Show Raw Metric result	01/08/2014	31/10/2014	92								
Status: Filter results per VO	01/09/2014	31/10/2014	61								
Status: Filter results for a specific Profile	01/09/2014	31/10/2014	61								
Status: Filter results for a specfic Region	01/09/2014	31/10/2014	61								
Status: Filter results for a specific Site	01/09/2014	31/10/2014	61								
Status: Filter results for a specific Service Flavor	01/09/2014	31/10/2014	61								
Status: Filter results for a Specific Service End Point	01/09/2014	31/10/2014	61								
Status: Filter results for a predefined period (24 hours, week, month, 6 months)	01/09/2014	31/10/2014	61								
Status: Filter results for a custom period	01/09/2014	31/10/2014	61								
Treemap: Generate Treemap based on the Statuses	01/10/2014	31/12/2014	92								
Treemap: Generate Treemap based on the Availabilities	01/10/2014	31/12/2014	92								

PY5 Roadmap

EGI TJRA2.1				Start Date:	01/05/2014							
Task	Start Date	End Date	Duration (days)	**2014**								
			Date:	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Sync Components	01/05/2014	31/12/2014	245									
Add capturing of raw data	01/05/2014	30/06/2014	61									
Storing of raw data to the data store	01/05/2014	30/06/2014	61									
Implement mechanism for data retention of raw data	01/10/2014	31/12/2014	92									
Sync components use interfaces of new monitoring engine and gridmon	01/01/2014	31/03/2014	90									
Monitoring Engine	01/07/2014	31/12/2014	184									
Rewrite ATP to provide just the JSON that NCG consumes	01/07/2014	30/09/2014	92									
Modify POEM to work with the reduced database	01/07/2014	30/09/2014	92									
Refactor MyEGI API to keep functions used by other components (sync components, NCG)	01/07/2014	30/09/2014	92									
Remove MyEGI from the Nagios Regional instance	01/10/2014	31/12/2014	92									
Remove MRS from the Nagios Regional instance	01/10/2014	31/12/2014	92									
Package the Nagios Regional instance	01/10/2014	31/12/2014	92									
Migration to RHEL 6	01/10/2014	31/12/2014	92									
Gridmon	01/07/2014	31/12/2014	184									
Refactor MyEGI API to keep functions used by other components (sync components, NCG, regional instances)	01/07/2014	30/09/2014	92									
Package the new Gridmon instance	01/10/2014	31/12/2014	92									
Migration to RHEL 6	01/10/2014	31/12/2014	92									