

CE publishing proposal

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WLCG IS TF

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History

- We have talked about simplifying the information system since 2015 as part of the costs evaluation.
- In 2015 OSG also announced they'd drop the BDII
 - This TF was setup to solve the problem of sites disappearing from services such as REBUS and even AGIS
- Europe is more complicated
 - No agreement to do the same
 - Many lengthy discussions....

BDII still used

- The main problem in Europe is that there are many stakeholders and nobody can really impose anything.
 - Dropping the BDII is not an option in general but possibly also in WLCG.
- What we can do however is to provide an alternative mechanism so that there is at least a choice to make.
- In the past we discussed where we could put the handful of parameters needed by WLCG
 - Add the information to GOCDB
 - Add simplified json files to the services with a pointer in GOCDB to find the json

GOCDDB Ext. properties

- One of the solutions discussed was to add configurable properties to the service and its end points
 - One can add as many properties as it is wanted
- Andrew's talk will show a proposal to get the HS06 values and the capacity using these mechanism.
- Would need agreement on properties and writing information upload tools.

Extension Properties				Export all properties
Name	Value	Edit	Select All	
PILOT_DN_GridPP	/C=UK/O=eScience/OU=Manchester/L=HEP/CN=gripvm-tier2.hep.manchester.ac.uk		<input type="checkbox"/>	
PILOT_SE_GridPP	UKI-NORTHGRID-MAN-HEP-disk		<input type="checkbox"/>	
UpdatedInGOCDB	Fri, 23 Mar 2018 00:27:26 GMT		<input type="checkbox"/>	
PolicyRule	VOMS:/hcb/Role=NULL/Capability=NULL,VOMS:/hcb/Role=NULL/Capability=NULL		<input type="checkbox"/>	
PolicyScheme	org.glite.standard		<input type="checkbox"/>	
ComputingManagerTotalPhysicalCPUs	1		<input type="checkbox"/>	
ComputingManagerCreationTime	2018-04-15T01:08:07Z		<input type="checkbox"/>	
ComputingManagerProductName	Vac		<input type="checkbox"/>	
ComputingManagerProductVersion	03.00.00		<input type="checkbox"/>	
ComputingManagerTotalLogicalCPUs	4		<input type="checkbox"/>	
ComputingManagerTotalSlots	4		<input type="checkbox"/>	
BenchmarkType	specint2000		<input type="checkbox"/>	
BenchmarkValue	5000		<input type="checkbox"/>	

Add Properties Select action... Submit

Extension Properties				Export all properties
Name	Value	Edit	Select All	
ComputingShareMaxWallTime	86400		<input type="checkbox"/>	
ExecutionEnvironmentOSFamily	Linux		<input type="checkbox"/>	
ExecutionEnvironmentOSName	CERN Virtual Machine		<input type="checkbox"/>	
ExecutionEnvironmentPlatform	x86_64		<input type="checkbox"/>	
ExecutionEnvironmentVirtualMachine	True		<input type="checkbox"/>	
PolicyRule	VOMS:/hcb/Role=NULL/Capability=NULL,VO:/hcb		<input type="checkbox"/>	
PolicyScheme	org.glite.standard		<input type="checkbox"/>	
UpdatedInGOCDB	1521678607		<input type="checkbox"/>	


Add Properties Select action... Submit

Json

- Storage developers have already agreed to supply a simplified json as an alternative to the BDII
- HTCondor-CE already provides this capability which is already consumed by ATLAS
- ARC-CE developers planned a simple parser of the ARC configuration to produce a json that can be published.
- This is already a good chunk of services whose developers can maintain this without system administrators doing any extra fiddling or writing upload tools.
- CREAM-CE: one CE at the time


How would it work?


- Add the json in an accessible place and add it as an end point in GOCDDB
- Experiments systems query GOCDDB for new services, end points.
- Sys admins only have to add an extra end point.



Service Endpoint: is-json

Service description json

✖ Delete
 Edit

Parent Service 

Name vm3.tier2.hep.manchester.ac.uk (ARC-CE)

Endpoint 

Name	is-json
Description	Service description json
Url	vm3.tier2.hep.manchester.ac.uk/json
Interface Name	ARC-CE
Id	7156
Contact E-mail	ops@blackett.cern.ch
Monitored	✖

More (GLUE2) attributes can be added on request - please contact gocdb developers.

Extension Properties Export all properties

Name	Value	Edit	<input type="checkbox"/> Select All
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+ Add Properties
 Select action... ▾
Submit

Service Endpoints (endpoints?) 

Name	URL	Interface Name	Edit	Remove
is-json	vm3.tier2.hep.manchester.ac.uk/json	ARC-CE		✖

+ Add Endpoint

Current json

- Current json needs tweaking.
- Main tweak areas
 - VO access
 - Important at shared sites
 - Can we add new things?
 - GPUs?
 - What about running and waiting jobs?
 - Dynamic I know but only 2 fields.
 - Else?

```

ce_services:
  USCMS-FNAL-WC1-CE2:
    status: "Production"
    endpoint: "cmsosgce2.fnal.gov:9619"
    flavour: "HTCONDOR-CE"
    name: "USCMS-FNAL-WC1-CE-HTCondorCE-cmsosgce2.fnal.gov"
    version: "3.0.4"
    type: "CE"
    resource_group: "USCMS-FNAL-WC1"
    jobmanager: "condor"
    site: "USCMS-FNAL-WC1"
    
```

```

queues:
  USCMS-FNAL-WC1-CE2:
    default:
      status: "Production"
      name: "default"
      memory: 16384
      entry: "USCMS-FNAL-WC1"
      votag: ""
      subclusters: []
      cpus: 1
      ce: "USCMS-FNAL-WC1-CE2"
      max_wallclocktime: 2850
    
```

Conclusion

- I'm not proposing anything that isn't already happening
 - Storage, HTcondor-CE already provide this
- ARC-CE can be the next
- We might get CREAM-CE to produce something similar.
 - One CE at the time
- New sites with non classical grid services will have easier time too.
 - Rather than a full blown BDII all they need is a static or semi-static file with a handful of parameters.
- ATLAS and CMS already consumers
 - One experiment at the time? 😊
- Discuss details.....