

# Cosmic Frontier Computing FY14 Requests - Summary

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# Stakeholder Experiments

- Current and Future

- DES - Operating @ CTIO
- Darkside - Commissioning @ Gran Sasso
- SCENE - R&D
- CDMS - Operating @ Soudan
- COUPP/PICO - Operating @ SNOLAB
- Holometer - Operating @ muon lab
- LSST/DESC - R&D

- On Horizon

- DESI                      MKIDS                      CMB Polarization

- Legacy

- SDSS                      Auger

# Summary

- Current computing needs are being met
  - In some cases, requests have been descoped to deal with realities of budget or overly-optimistic expectations
  - In other cases, requests were underscoped but additional needs are being covered
- Categories
  - Storage
  - Batch processing
  - Services

# FY14 Storage requests and status

Cosmic Frontier Summary of Storage Requests					
Experiment	Storage Request (FY14)		Actual		Future (per year)
	dCache/Tape	Disk (blue arc/dedicated)	dCache/Tape	Disk	
Darkside	100-200 TB	~200 TB (tape)	200 TB	21 TB	< 200 TB DCache
SCENE (Argon/Xenon)	5 TB	Small	5 TB	small	??
DES	20 dCache + 600 TB tape	150 TB dedicated	18 dCache + tape	~180 TB	600 TB tape
CDMS	48 TB tape	Small	60 TB tape	small	60TB tape
COUPP/PICO	--	2 TB	--	2 TB (?)	
Holometer	Between one floppy disk and one tape robot				
LSST/DEC	--	--	--	--	??
Auger		2 TB		2 TB (?)	

# FY14 Batch CPU requests and status

Cosmic Frontier Summary of Batch Requests					
Experiment	Batch Cores		Allocated	Actual (Peak)	Future
	Production	Analysis			
Darkside/Scene	200	200	25 + Dedicated Analysis	442	??
SCENE (Argon/Xeno)	??	??		??	
DES	980	Offsite	980	604	1100
CDMS	500	Offsite	500	~50	TBD
COUPP/PICO	small	small	0	small	small
Holometer					
LSST/DESC					
Auger	10-100x more		700	3454	

# FY14 Services Used

	DAQ	Fermigrid	Gridftp	Gratia	Jobsub	Fifemon
	DAQ and Controls	Grid and Cloud	Grid and Cloud	Grid and Cloud	Grid and Cloud	Grid and Cloud
<b>Darkside</b>	artdaq	yes	yes	yes	yes	yes
<b>DES</b>	custom	yes				
<b>SCENE</b>						
<b>COUPP/PICO</b>	custom	yes	no	no	yes	interested
<b>Holometer</b>						
<b>LSST/DESC</b>		interested				
<b>Auger</b>						

	Redmine	Databases	CVS/Subversion	ECL	ups/upd
	scientific collaboration tools	scientific collaboration tools	scientific collaboration tools	scientific collaboration tools	scientific collaboration tools
<b>Darkside</b>	yes		yes		yes
<b>DES</b>	yes	yes	yes	yes	yes
<b>SCENE</b>					
<b>COUPP/PICO</b>	no		interested	yes	yes
<b>Holometer</b>					
<b>LSST/DESC</b>	no		interested		
<b>Auger</b>					

# FY14 Services Used

	CVMFS	Interactive machine in GP	sam/ifdh	file transfer service (FTS)
	scientific computing systems	scientific computing systems	scientific data management	scientific data management
<b>Darkside</b>	Planned`	yes	SAMweb	yes
<b>DES</b>	yes			
<b>SCENE</b>				
<b>COUPP/PICO</b>	no	yes	yes	yes
<b>Holometer</b>				
<b>LSST/DESC</b>		no		
<b>Auger</b>				

	Software Framework	software processing	Generators	OSG Enabled	Federated Data Management	docdb
	scientific frameworks	scientific frameworks	scientific frameworks			
<b>Darkside</b>	art		g4ds	Planned	xrootd	yes
<b>DES</b>						yes
<b>SCENE</b>						
<b>COUPP/PICO</b>	custom	custom	srim, geant4, mcnp		no	yes
<b>Holometer</b>						
<b>LSST/DESC</b>						
<b>Auger</b>						