The OSG Sites Coordination Program

(towards making sites visible, welcoming, dependable)

Rob Gardner

University of Chicago

OSG Site Administrators Meeting

Fermilab, July 30-31, 2007

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OSG Sites Coordination

- In OSG Facility project there is an Integration program of work (with deliverables and milestones)
- It connects mostly to efforts in Software/VDT, Operations/GOC, Troubleshooting and Applications areas
- But there are contributed, collaborative efforts coming in from many places
  - the ITB which is contributed, volunteer effort and resources, and external projects
- For OSG Year 2, starting 10/1/07, this will be reorganized to include a **new area** for **Sites Coordination**
- At this meeting we want to collect your input for this!

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Current deployment processes

VTB, ITB, and OSG Processes
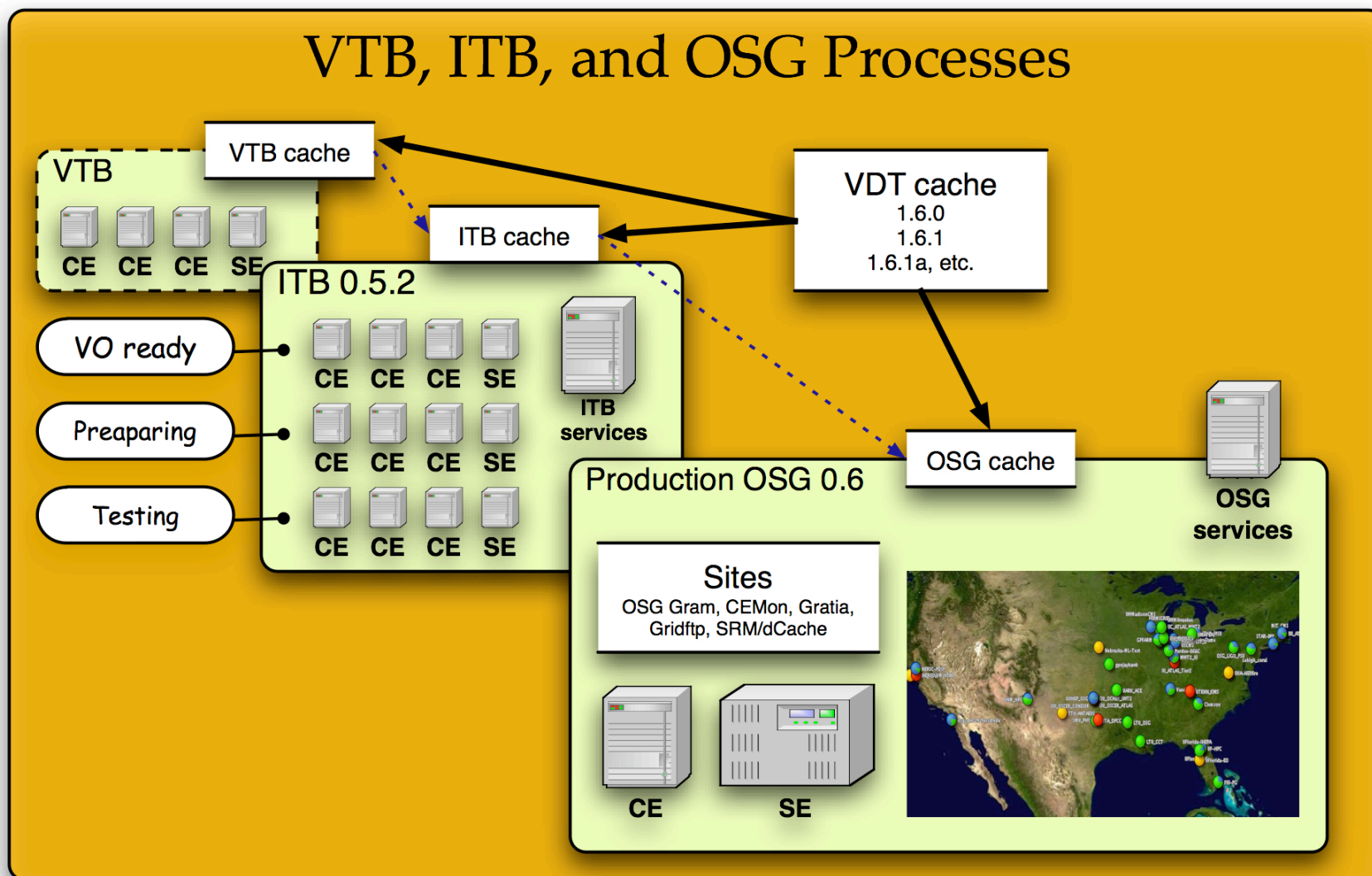
Validation Testbed

- Motivation
  - create a limited, **small-scale** testbed that provides **rapid**, self-contained, limited installation, configuration, and validation of VDT and other services
  - configured as an actual grid with distributed sites & services
  - gives very quick feedback to VDT
  - prepares packages and configurations for the ITB
- Sites
  - UC, CIT, LBNL, FNAL, IU
- Components
  - SVN repository, http://osg-vtb.uchicago.edu/.
  - Pacman cache
  - Support and build tools; central logging host (syslog-ng)

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Integration Testbed

- Motivation
  - Broader, larger scale testing, eg. more platforms, batch schedulers, site specifics...
  - VO validation: application integration platform; first tests of the OSG software stack
  - Operated: monitored, scrutinized: Persistent ITB (FermiGrid, BNL)
- Components
  - SVN repository and Pacman cache, support and build tools
  - ITB Release description, eg: https://twiki.grid.iu.edu/twiki/bin/view/Integration/ITB_0_7/WebHome
  - Site validation table: by-hand bookkeeping
  - Services: ITB instances of ReSS, BDII, Gratia, GIP validation
- Processes
  - Stakeholder requirements
  - New service integration (readiness plans)
  - Install fests, validation, documentation
    https://twiki.grid.iu.edu/twiki/bin/view/Integration/ValidationPage

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Integration process eg: ITB deployment

- Prepare site, and install CE
- Configuration - osg-configure
- Execute local validation tests - site-verify
- Validate grid-level services: how does my CE appear in OSG services
  - check VORS scans
  - check reporting of ClassAds in ReSS
  - check reporting of ldiff information in BDII
  - check accounting in Gratia
- Application submission and testing
- Feedback to OSG Software/VDT, service providers
- VO validation and sign-off
- Initial provisioning steps for OSG production deployment, eg. https://twiki.grid.iu.edu/bin/view/Integration/ITB_0_7/DocumentationTable

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Site Validation: CE and SE

Sites Ready for VO Application Testing

David Meyers coordinating

^ Charles Huang

Site Name	Contact	OSG-ITB-0.5.2 2/20/07	WS-GRAM	srmcp	VORS			FERMILAB	LIGO		ATLAS
Test annotator -->		DavidM	JeffP	Burt	JohnR	GabrieleG	PhilippeC DavidM	Keith			W
CIT_ITB_1	Michael	✅	✅		✅	❌	✅ ✅				
FNAL_GPFARM_TEST	SteveT	✅	✅		✅	✅	✅				✅
LIGO-CIT-ITB	DavidM	✅	✅		✅	✅			-		⊘
IUB-VTB	JohnR	✅	✅	⚠	✅				✅	-	⚠
TTU-TESTWULF	AlanS	✅	✅	✅					✅	✅	
UC_T2DEV_ITB	Suchandra	✅	✅					⊘	✅	✅	-	✅

SRM Production sites ava...

- FNAL (srm/dcache) srm...
- UCSanDiego ? ...

Gearing up for ITB 0.7

...mation device, not a monitor:
mockup of an install fest whiteboard
• bookkeeping of ITB progress across installations, services, and apps

Sites... ...O testing

Site Nam...	Contact	OSG-ITB-0.5.2 2/20/07	WS-GRAM	srmcp	VORS	CEMon	Gratia	GridEx	FERMILAB	LIGO	SDSS	CMS	ATLAS
Test annotator -->		DavidM	JeffP	Burt	JohnR	GabrieleG	PhilippeC	DavidM	Keith	DavidM	Nickolai	FrankW	TorreW
BNL_ITB_Test1	Xin	✅	⊘	✅	✅	❌	✅	✅	⚠	❌			

https://twiki.grid.iu.edu/twiki/bin/view/Integration/SiteValidationTableITB052

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Current Integration Schedule

- Week of 7/30/07:
  - VDT 1.8.0 released
  - ITB ITB 0.7.0 testing: packages, cache, central services, core sites

- Week of 8/6/07:
  - Release ITB 0.7.0 and deploy on:
    - FermiGrid, BNL, UC, CIT, LBNL, OU, TTU
    - BNL, FNAL will provide OSG SEs based on SRM-dCache, in order to support full functional tests for VOs requiring local storage.
    - CE and SE open for experimentation
    - Others are welcome to join - PLEASE do email me if you wish to contributed to this ITB cycle and the next release of OSG.

- Week 8/13/07:
  - Start sites and service validation

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Integration Schedule, cont.

- VO validation schedule
  - open up for VO validation soon as above happens
  - August 13 earliest or up to August 20, depending on problems, responsiveness of experts who can fix problems, etc.

- The ITB is expected to start at 0.7.0
  - but will likely experience at least one upgrade
  - for example, to a incorporate changes that result from the validation process leading to, eg., VDT 1.8.1

- Documentation
  - In parallel to this will be the creation of the OSG 0.8 documentation set for CE, SE, and Client installations.

- The final, signed-off ITB 0.7.x
  - will provide the basis for the next deployment of OSG 0.8.
  - The speed at which this happens will depend on how quickly the ITB, VDT, VO applications can validate.
 - We will set a specific deadline within the next two weeks.

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Site Coordination Goals

1.3.2   Site Coordination
1.3.2.1   Develop **benchmarks** for being a "good" OSG sites; audit sites against benchmark; and, support sites in reaching conformance
1.3.2.2   **Monthly analysis of operational metrics** (per OSG metrics plan) to identify "less than optimal performance sites"; create "work queue" for follow-up functional and diagnostic testing.
1.3.2.3   **Functional/diagnostic testing of OSG sites** (identified via operations metrics analysis) resulting in guidance to site owners on how to improve performance.
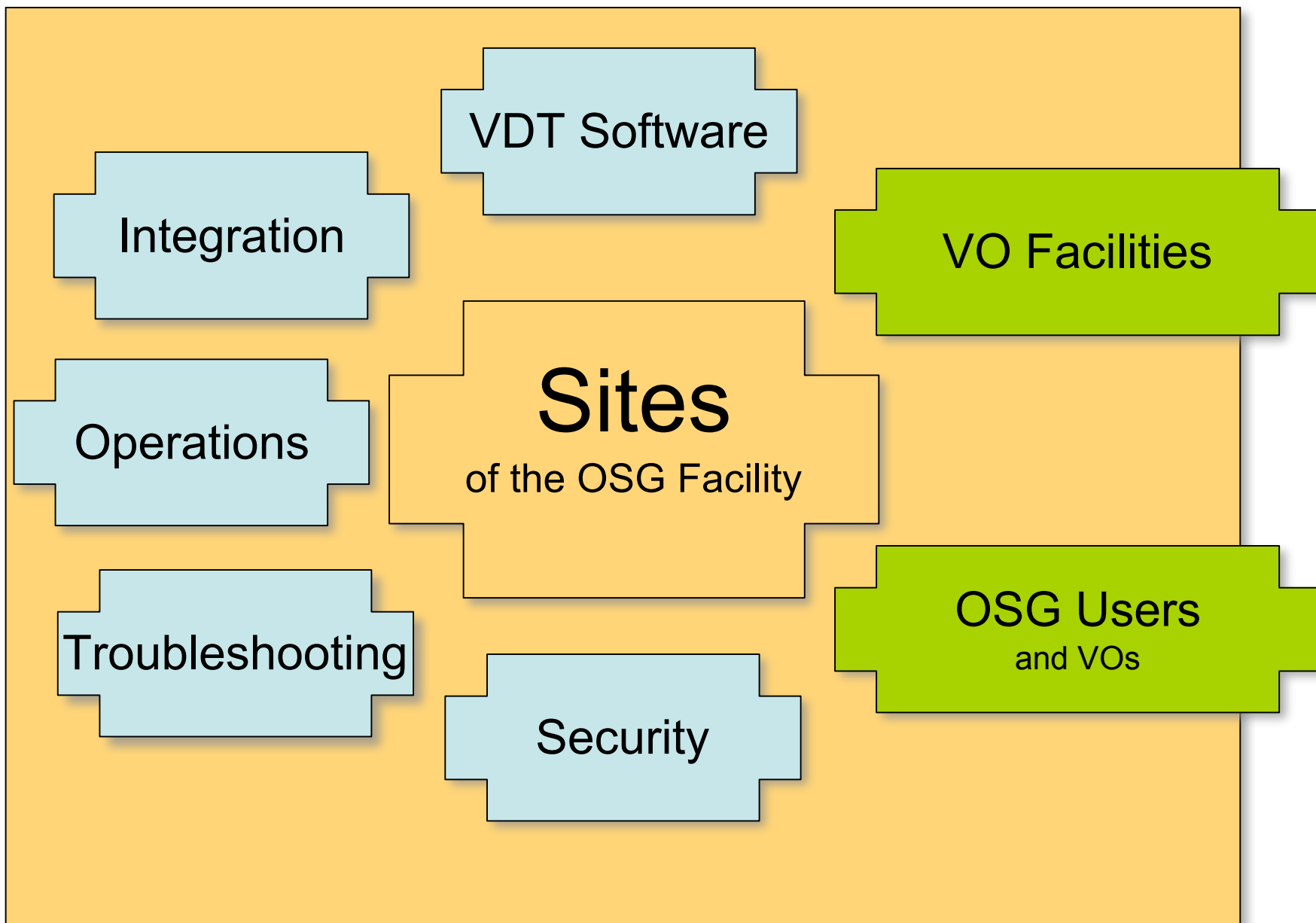
Site Coordination Questions

- What?
  - Metrics analysis that indicate on-going problems at the site/service level
  - Site functional tests, availability, certification of critical information attributes, validation services
    - Dedicated "load tests" as appropriate

- Interaction with other groups inside and out OSG
  - Troubleshooting, Operations, Software, VO facilities groups, eg. ...
  - How do we make sure critical site issues get tracked and resolved?

- When?
  - Generally will happen post-Integration cycles
  - Will begin post OSG 0.8 deployment, Oct 1. Need program in place well before then

- Forums?
  - Alternate w/ Integration time slot (2:30pm CDT)?
  - Email osg-sites@opensciencegrid.org? Comments:
  - https://twiki.grid.iu.edu/twiki/bin/view/Integration/SitesCoordination Planning

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