

フラグシップアーキテクチャOGSAの状況

OGSA-WGおよび関連するWGの状況

23 March, 2007

グリッド協議会 第2回Grid Hotline
OGSA-WG 共同議長 岸本光弘(富士通)

アウトライン



- Open Grid Services Architecture とは
- イベント(会議、電話会議)
- ドキュメント
- 優先作業項目
- 今後の予定
- お願い

OGSAとは



- サービス指向のアーキテクチャ
- 交換可能な, コンポーネント指向アーキテクチャ
- 分散環境における, メタOS機能
- Webサービスが規定する各種技術・仕様を利用

SOAとWeb Servicesの利点

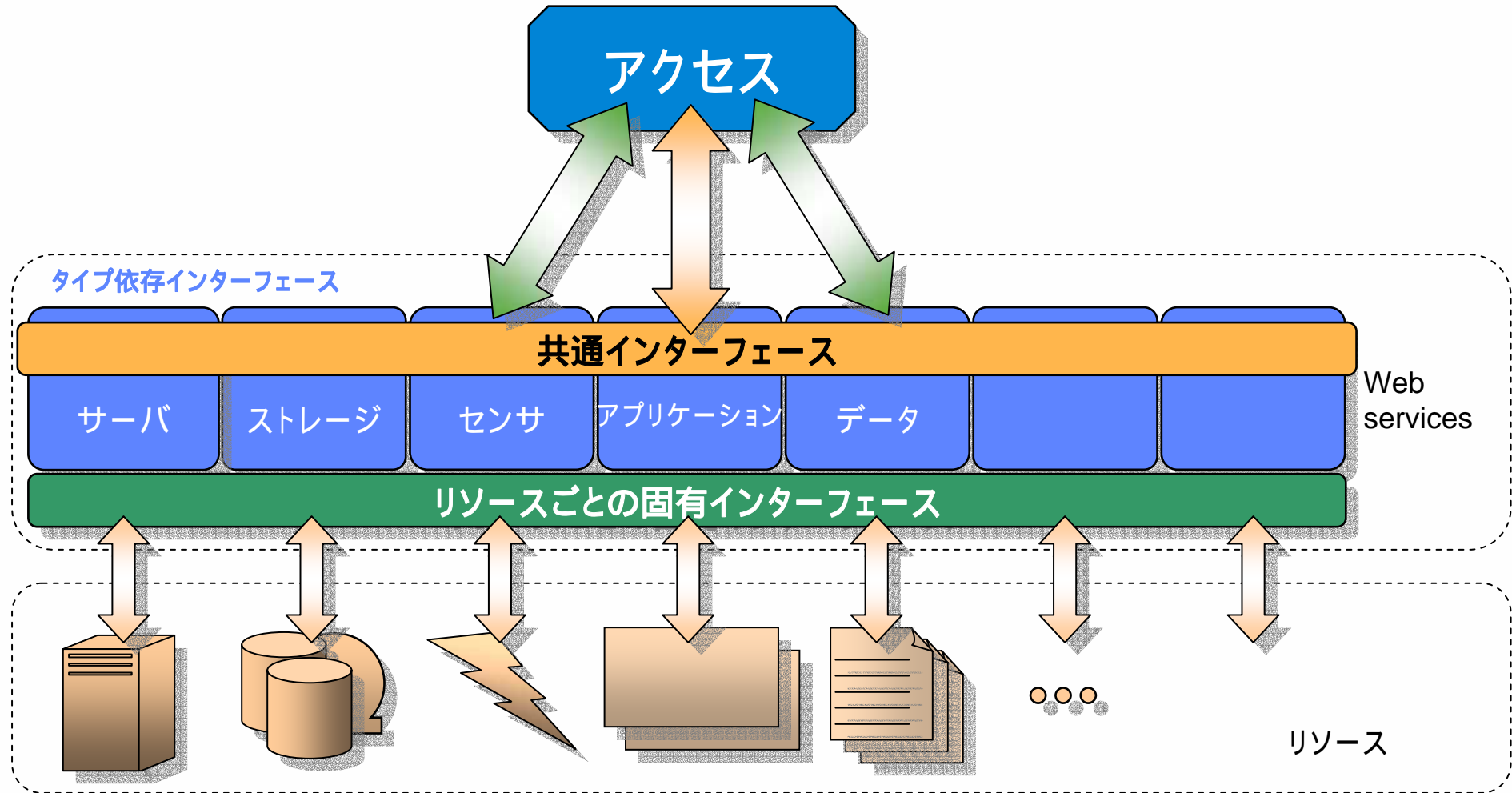
SOA

- **柔軟性**
 - 必要なサービスを動的かつ位置透過に利用できる
- **スケーラビリティ**
 - 必要に応じてサービスを追加・削除
- **置き換え可能**
 - ユーザに知らせず、提供サービスを更新可能
- **高可用性**
 - 障害発生時には、代替サービスに切り替え

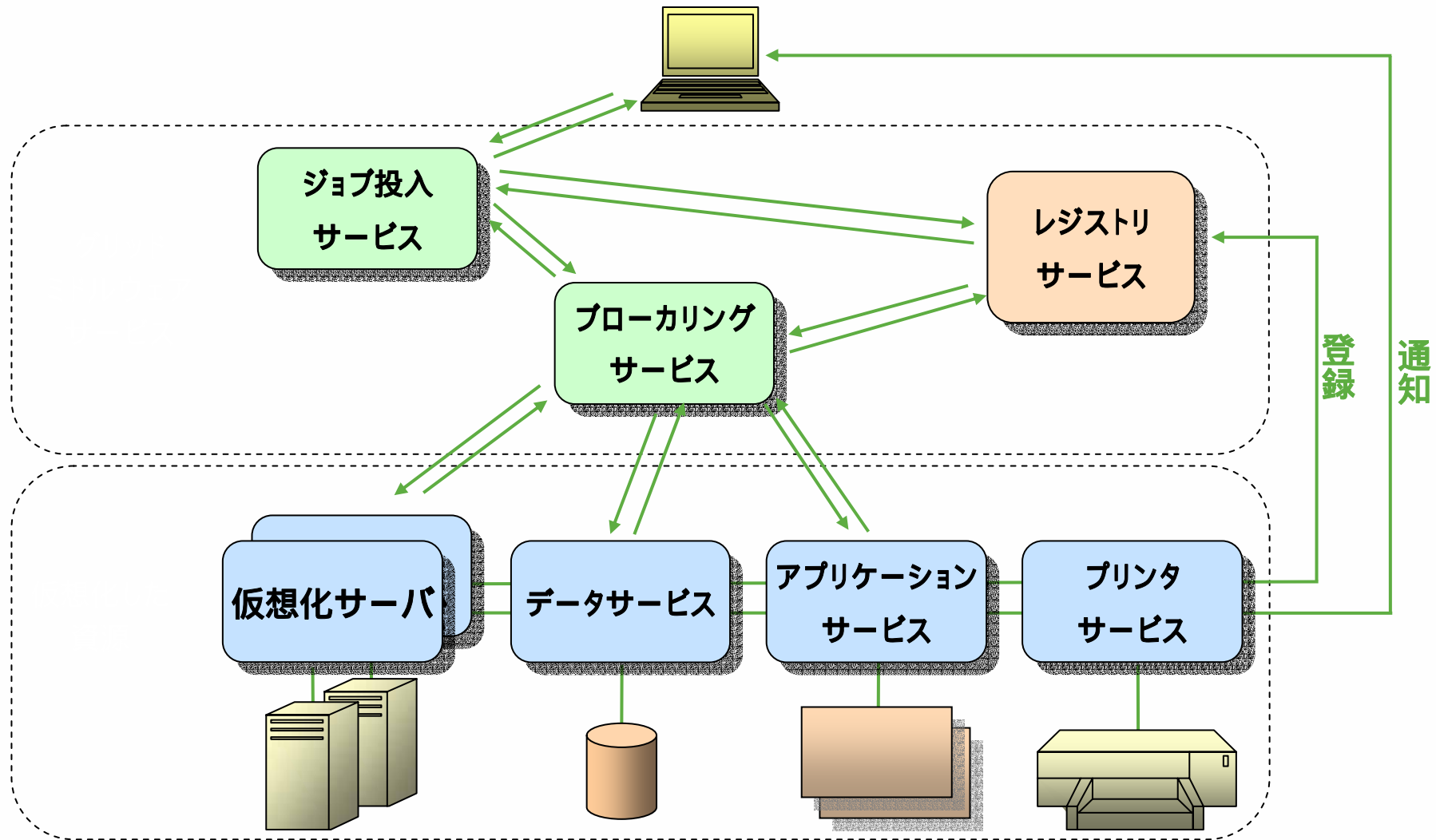
Web Services

- **相互接続性確保**
 - 多数の国際標準仕様
- **有力ベンダが協力を推進**
 - 完成度の高い開発ツール
 - 書籍やトレーニングなどの教育支援
- **選択と拡張**
 - 利用可能な既存仕様を選択し採用
 - 不足機能だけ、グリッド向けの拡張仕様を開発

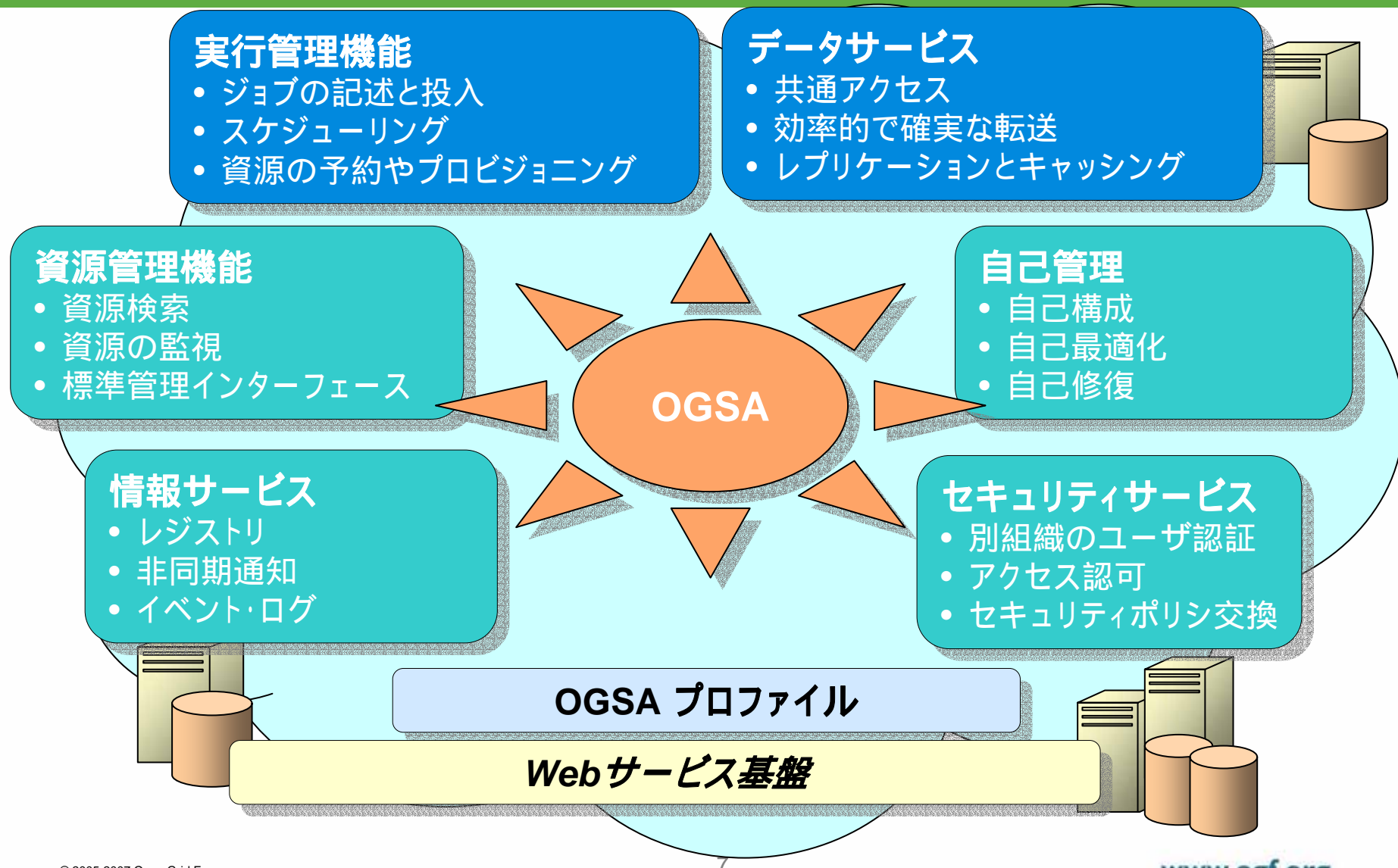
リソースの仮想化



サービス指向のグリッド



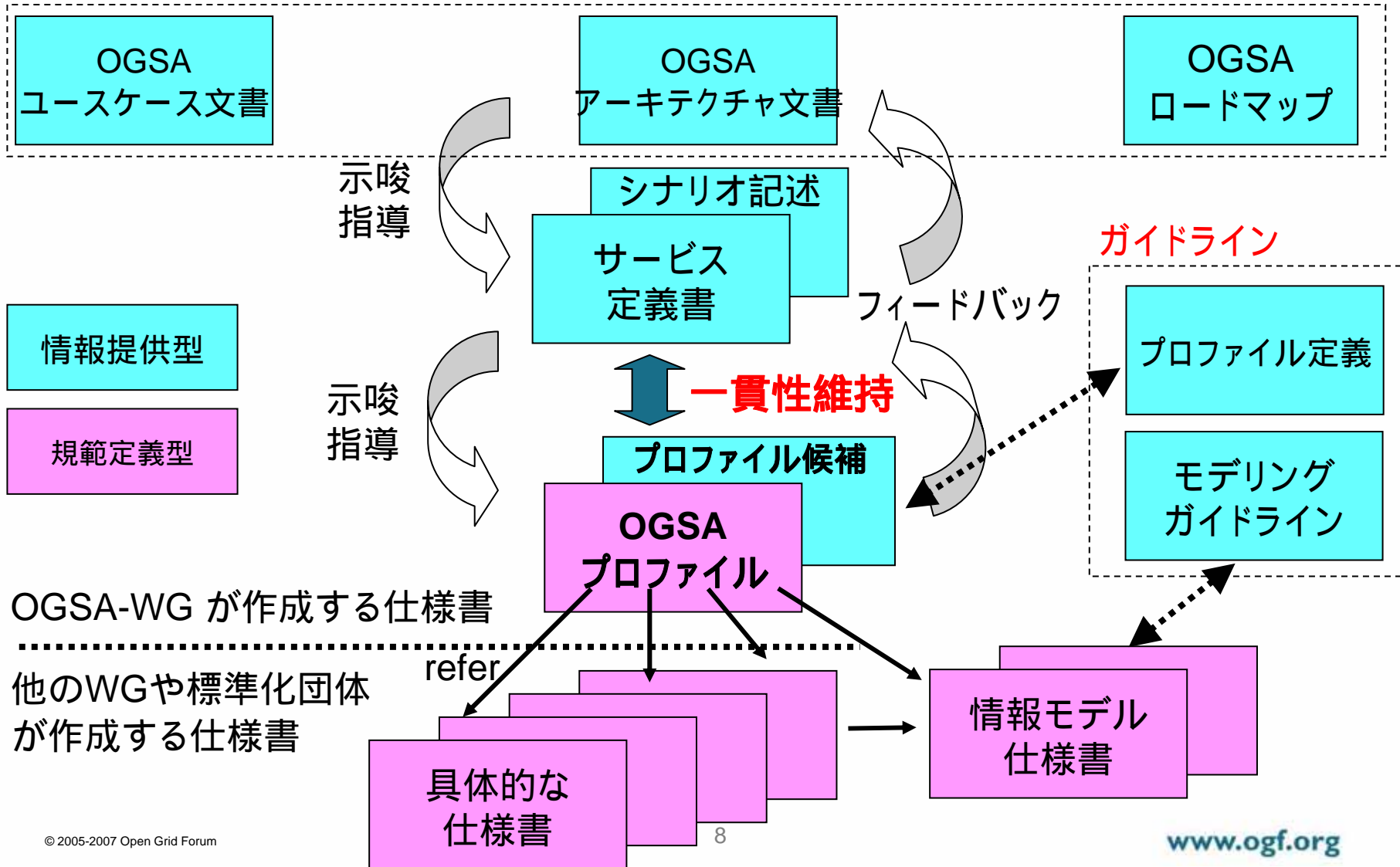
OGSAの6つの主要機能



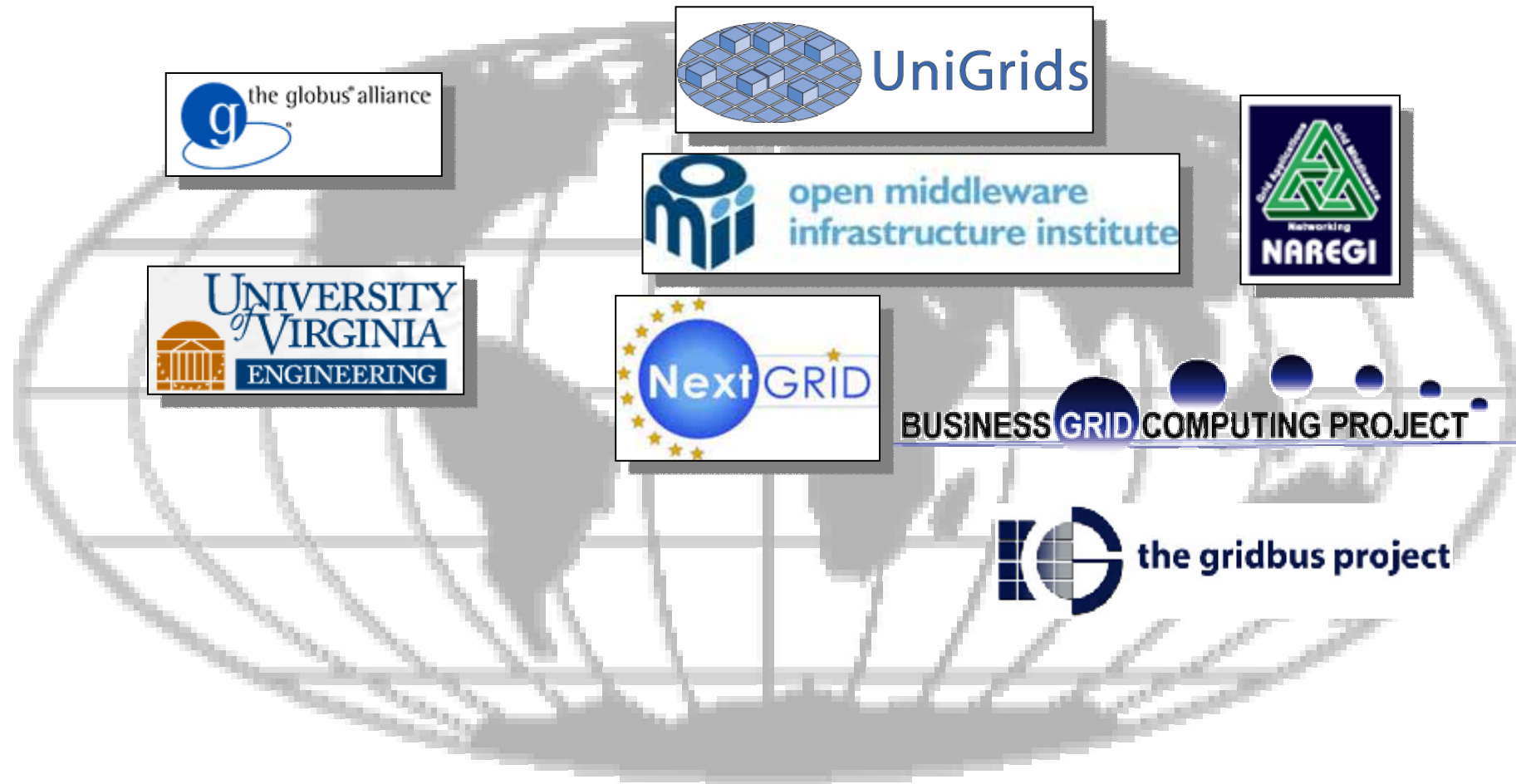
OGSAの仕様書体系



基準文書



OGSAに準拠したグリッドプロジェクト



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イベント



- OGF19 (1/29-2/2)
 - Friday Center (Chapel Hill, NC)
 - 5 sessions
- OGSA #17 (3/14-17)
 - Oracle HQ (Redwood Shore, CA)
 - 2.5 day (20~25 people)
- **電話会議**
 - **毎週火曜日 (7~9am)と木曜日(10pm~midnight)**

OGF19 (1)



- OGSAセキュリティ
 - OGSAにおけるセキュリティの議論
 - 短期解として、1対1のシンプルなAuthentication Security Profileを開発する
 - 並行して、中長期的なフル機能を持つAuthentication仕様を開発する
 - OGSA-AuthN-WG
- OGSAとEGA reference model
 - OGFの旗艦アーキテクチャであるOGSAと、EGAが開発したreference modelの関係を整理
 - OGSAは、SoAとWEBサービスを使ったReference Modelの具体化
 - reference modelを発展させるために、新WGを発足
- OGSA EMS
 - OGSA-WGが開発した、EMS Architecture Scenarios文書を紹介し議論
 - 現在、パブリックコメント中
 - 参加者から、GIN-INFOのInformation Service接続実験の結果報告の申し出あり
 - 別メンバから提案されたInformation Brokerのレビューを実施

OGF19 (2)



- OGSA information/data modeling
 - XML SchemaおよびXQueryをベースにしたOGSA information/data modelingを、プロトタイプを使って説明し議論
 - OGSA-BESコンテナのモデルから、DMTF CIMの拡張提案を纏め、議論
 - DMTF DSP-0225, DSP-0230へのフィードバックをレビュー
- OGSA Workflow
 - 多数のGRIDプロジェクトがworkflowを実装しているが、標準仕様がなく、相互運用ができていない
 - OGSA-WGが標準workflow仕様を作るべきか(作れるか)を議論
 - メンバの関心が非常に高いので、標準化に向け検討を進める

OGSA17 (day 1)



- OGSA roadmap
 - 作成中のroadmapドキュメントに関し、文書中のコメントを中心に議論
- OGSA workflow
 - OASISが開発中のBPELの紹介
 - 代表的な利用例を特定するため、ユースケース調査を行う
- OGSA data grid usecase
 - data gridのユースケースを議論
- QoS
 - QoS/QoX/SLAに関し議論
 - OGF20において(再度)BoFを開催する

OGSA-17 (day 2)



- JSDL 2.0 提案
 - JSDL-WGが、JSDL 1.xおよびJSDL 2.0の開発計画を説明
 - 内容と進め方・スケジュールを議論
- Data Model Initial Tag Proposal
 - GLUE 1.3をベースにして、OGSA data modelの叩き台を作成
- OGSA Security
 - シンプルなAuthentication Security Profileのユースケースを議論

OGSA-17 (day 3)



- OGSA EMS
 - GIN-INFOで実施したInformation Service接続実験の結果報告を聞き議論
- General Session
 - 開発中の文書の進捗状況と予定を確認
 - OGF20で5つのセッション開催を決定
 - 優先作業項目を確認
 - 電話会議のスケジュール決定

電話會議 新開催要領



- The start times, frequency (twice a week) and overall duration (2 hours each) of the calls stay the same.
- We subdivide each two hour call into 1 hour slots, for a total of 4 slots a week.
- Of these 4 one-hour slots (at most) 1 slot a week will be for logistics/administration with the remaining slots for technical discussion.
 - The logistics slot will alternate between Monday and Thursday each week.
- Only a single technical topic may be scheduled to a slot.
- A topic may not exceed its slot duration.
 - If discussion on a topic finishes early or is canceled then the next topic does not start until its scheduled slot time.
 - In other words the slots are independent of each other.

Monday telecon time slot



UTC-time	Tokyo	London	New York	San Francisco
Monday, 26 March 2007, 15:00:00	Tue 00:00	Mon 16:00 *	Mon 11:00 *	Mon 08:00 *
Monday, 26 March 2007, 16:00:00	Tue 01:00	Mon 17:00 *	Mon 12:00 *	Mon 09:00 *
Monday, 26 March 2007, 17:00:00	Tue 02:00	Mon 18:00 *	Mon 13:00 *	Mon 10:00 *
Monday, 26 March 2007, 18:00:00	Tue 03:00	Mon 19:00 *	Mon 14:00 *	Mon 11:00 *
Monday, 26 March 2007, 19:00:00	Tue 04:00	Mon 20:00 *	Mon 15:00 *	Mon 12:00 *
Monday, 26 March 2007, 20:00:00	Tue 05:00	Mon 21:00 *	Mon 16:00 *	Mon 13:00 *
Monday, 26 March 2007, 21:00:00	Tue 06:00	Mon 22:00 *	Mon 17:00 *	Mon 14:00 *
Monday, 26 March 2007, 22:00:00	Tue 07:00	Mon 23:00 *	Mon 18:00 *	Mon 15:00 *
Monday, 26 March 2007, 23:00:00	Tue 08:00	Tue 00:00 *	Mon 19:00 *	Mon 16:00 *
Tuesday, 27 March 2007, 00:00:00	Tue 09:00	Tue 01:00 *	Mon 20:00 *	Mon 17:00 *
Tuesday, 27 March 2007, 01:00:00	Tue 10:00	Tue 02:00 *	Mon 21:00 *	Mon 18:00 *
Tuesday, 27 March 2007, 02:00:00	Tue 11:00	Tue 03:00 *	Mon 22:00 *	Mon 19:00 *

The same as last year's

Thursday telecon slot



UTC-time	Tokyo	London	New York	San Francisco
Thursday, 29 March 2007, 07:00:00	Thu 16:00	Thu 08:00 *	Thu 03:00 *	Thu 00:00 *
Thursday, 29 March 2007, 08:00:00	Thu 17:00	Thu 09:00 *	Thu 04:00 *	Thu 01:00 *
Thursday, 29 March 2007, 09:00:00	Thu 18:00	Thu 10:00 *	Thu 05:00 *	Thu 02:00 *
Thursday, 29 March 2007, 10:00:00	Thu 19:00	Thu 11:00 *	Thu 06:00 *	Thu 03:00 *
Thursday, 29 March 2007, 11:00:00	Thu 20:00	Thu 12:00 *	Thu 07:00 *	Thu 04:00 *
Thursday, 29 March 2007, 12:00:00	Thu 21:00	Thu 13:00 *	Thu 08:00 *	Thu 05:00 *
Thursday, 29 March 2007, 13:00:00	Thu 22:00	Thu 14:00 *	Thu 09:00 *	Thu 06:00 *
Thursday, 29 March 2007, 14:00:00	Thu 23:00	Thu 15:00 *	Thu 10:00 *	Thu 07:00 *
Thursday, 29 March 2007, 15:00:00	Fri 00:00	Thu 16:00 *	Thu 11:00 *	Thu 08:00 *
Thursday, 29 March 2007, 16:00:00	Fri 01:00	Thu 17:00 *	Thu 12:00 *	Thu 09:00 *
Thursday, 29 March 2007, 17:00:00	Fri 02:00	Thu 18:00 *	Thu 13:00 *	Thu 10:00 *
Thursday, 29 March 2007, 18:00:00	Fri 03:00	Thu 19:00 *	Thu 14:00 *	Thu 11:00 *

30 minutes earlier than last year's

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GGF18以降に正式公開されたドキュメント



- [GFD.86](#) OGSA™ Basic Security Profile 1.0 – Core
 - T. Mori, F. Siebenlist
- [GFD.99](#) OGSA™ Security Profile 1.0 - Secure Channel
 - T. Mori, F. Siebenlist

Document schedule (1)



Document name	Milestones	Current Plan	New Plan
OGSA Security Profile 1.0 – Secure Channel	First draft	Sept. 2005	
	Ready for PC	Feb. 2006	
	Publication	Feb. 2007	
OGSA roadmap v1.1	First draft	Nov. 2006	
	Ready for PC	Mar. 2007	April 2007
	Publication	June 2007	July 2007

completed

delayed

Document schedule (2)



Document name	Milestones	Current Plan	New Plan
OGSA EMS Architecture scenarios 1.0	First draft	July 2006	
	Ready for PC	Jan. 2007	
	Publication	April 2007	April 2007
OGSA EMS Architecture scenarios capability	First draft	TBD (3~6 month)	
	Ready for PC		
	Publication		
OGSA EMS Architecture	First draft	Pending	
	Ready for PC		
	Publication		

completed

delayed

Document schedule (3)



Document name	Milestones	Current Plan	New Plan
Guidelines for Information Modeling for OGSA Entities (explain necessary process) GFD-I	First draft	Jan. 2006	
	Ready for PC	Feb. 2007	April 2007
	Publication	April 2007	June 2007
container information model GFD-I	First draft	Jan. 2006	
	Ready for PC	Feb. 2007	April 2007
	Publication	April 2007	June 2007
Information Modeling in OGSA XML schema and semantics Best practices GFD-R.P Also wiki page	First draft	March 2007	April 2007 (doc) May 2007 (wiki)
	Ready for PC	March 2007	Aug. 2007
	Publication	Aug. 2007	Dec. 2007
Information model profile document (BES container) Proof of concept	First draft	March 2007	TBD
	Ready for PC	TBD	
	Publication		

Document schedule (4)



Document name	Milestones	Current Plan	New Plan
OGSA Security Profile 1.0 – Express Authentication	First draft		May 2007
	Ready for PC		Oct. 2007
	Publication		Jan. 2008

Reconciling OGSA and EGA Reference Modelは、
RM-WGに移譲

completed

delayed

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優先作業項目



- Security (Express AuthN)
 - Andrew Grimshaw and Duane
- Info/data modeling
 - Ellen Stokes
- OGSA Profile interop
 - Hiro Kishimoto
- OGSA workflow
 - Chris Kantarjiev, Steven McGough and Michel Drescher
- Roadmap
 - Chris Jordan
- Data grid usecase
 - Jay Unger
- QoX issues
 - Andrew Grimshaw and Steve McGough
- EMS-IS interface
 - Andrew Grimshaw

Security: Objectives



- A simple profile, a la the HPC profile security section, to enable authenticated interaction between OGSA components
- Based on existing profiles
- Not compete with OGSA-AuthN-WG
- Work with existing authentication environments (GIN)
- Don't recklessly alienate anyone
- Don't deal with general delegation problem
- AuthZ out of scope

Security: Next step

- Agreed to start work on such a 'quick' Authentication profile
- Develop use cases:
 - Volunteers or people to contact:
 - Andrew et al, HPC Profile (Andrew to talk to them),
 - Frank (review),
 - Michel Drescher (Unicore),
 - (Steve McGough) GridSam,
 - Not a separate document
 - Contact GIN about existing (delegation free) use cases.
 - Andrew to contact Erwin Laurie
- Present Straw man to the OGSA Group. (before OGF20)
 - Target interop at OGF21
 - Publication by Jan 2008
 - Party at OGF2x

Info/data modeling

- Ellen introduces a draft set of XML tags for the Information Model
- The group takes the GLUE schema 1.3 and starts to modify selected elements to the Information Model needs
 - This is not so much as to modify GLUE 1.3 but more of a profile exercise to further the Information Model work for a concrete tag list

OGSA profiles interoperability festa plan



- In order to advance three GFD-P-R OGSA profiles to GFD-R status, we should have interop festa and write up experience document within 24 months
- OGSA Profiles
 - WSRF Basic Profile 1.0 (Sept. 2006)
 - Basic Security Profile 1.0 – core (Dec. 2006)
 - Security Profile 1.0 – secure channel (Feb. 2007)
 - WS-naming
- Participants
 - UVa (Genesis II)
 - FLE (UNICORE)
 - Globus
 - OMII (GridSAM)

interoperability festa plan



	Genesis II	UNICORE	Globus	Gridsam	UNIVA	NAREGI
WSRF BP	?	X	X			?
BSP core	X	X	X	?		
BSP SC	?	X	X	?		
WS- naming	XX	X	X	?		

Hiro: announce and ask for participation

Test scenario lead

OGSA workflow



- OGSA should say, what are the **architectural requirements** that we should have in the grid.
- The lack of dynamism and the lack of workflows as first class entities seems like a serious drawback.
- Can we agree to **not write our own workflow language** until we look at what's out there.
- We have to figure out exactly how we fit under nominal work flow structures.
- **We need to collect the use cases for work flow**
 - Platform, OMII, Altair

OGSA roadmap



- Chris to complete these changes and some of these updates on the HPC Profile and Usecase Documents
 - Will send update version for review and further comment.
- Write articles for **ACM Communication**, or **IEEE Computer** to give motivations for the dry specs we currently have.
 - Target the technically literate end user.
 - General consensus is that this is a good idea
 - Action Item: Andrew to write a first draft with Chris Kantarjiev.
 - **Outside of roadmap.**

Data Grid Scenarios



- **Current practice is not very advanced**
 - Platform has some support but not pre-configured; for most users making sure that data is pre-placed is good enough
 - Univa has published something related (data movement orchestrator); eventually might be on-the-fly, dynamically orchestrated replication.
 - Done for commercial entities; not just for science applications
- **Describe requirements**, e.g., what files are required. How the requirements are satisfied depends on the state of the system,
 - e.g., what might already be available locally and the capabilities of the 'container'
 - There are a number of requirements on other areas and those requirements would also have to be documented.
- Jay (and Andrew) to write up a short paper describing the resolution of this action

QoX

- Andrew's presentation
 - no definition, just trying to identify what it is that it means
 - Seems closer to what SLA is used for, rather than QoX
- **WS-Agreement shortcomings**
 - Just a protocol; need terms
 - Problem of not having negotiation
- Need for **terms** to describe SLAs, as a start
 - Not necessarily within OGSA-WG
 - A workshop style might be one idea
- Andrew volunteered to arrange a **session at OGF20** to discuss this topic
 - NextGRID is also doing some work in this area.

EMS – Information Service



- Morris (GIN-INFO) walks the group through the document "**GIN - Information Services and Schema**" draft version 1.0
- The GIN-INFO reflects the commonly used standards in participating Grids;
 - this does not mean that the individual Grids do not also adhere to other Grid Standards
- Andrew explains the current EMS model and proposes a possible wrap of the current GIN BDII instances with a WS layer to enable use in OGSA
- Andrew Grimshaw to get **use cases for Information Services** from two points of view:
 - a) from the querier point of view
 - b) from the Information Service point of view

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OGSA-WG sessions at OGF20



two 90 minutes + three 45 min outreach sessions

- OGSA Express AuthN BP (45m)
 - Andrew Grimshaw
- OGSA profile interop (45m)
 - Hiro Kishimoto
- OGSA workflow (90m)
 - Steven McGough and Michel Drescher
- OGSA data modeling: tag proposal (90m)
 - Ellen Stokes
- EMS-IS session with INFO-D and GIN-INFO (45m)
 - Andrew Grimshaw

OGSA F2F on May 11 (Fri)



- University of Manchester
- 9am – 6pm
- Apologies
 - Andrew Grimshaw, Mark Morgan, David Snelling
- 2 + 2 workshop style sessions?
 - Info/data modeling
 - Ellen Stokes
 - OGSA workflow
 - Steven McGough and Michel Drescher
 - Data grid usecase
 - Chris Kantarjiev

TBD

2007 Summer F2F



- Date
 - July, August, or early September
- Location
 - ??

TBD

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お願い

- [OGSA™ EMS Architecture Scenarios 1.0](#) を読んで、コメントを寄せてください
 - 本日が締め切りですが、遅れても結構です
- 今年の9月にMark Lineschが任期満了を迎え退任します
 - 新しいIOGF代表(President)の候補者を募集しています
 - http://www.ogf.org/rotate_headers/rotate_president.php
 - http://www.ogf.org/rotate_headers/documents/IOGF_President_Position_Description.pdf

Thank you

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