Operating e-Infrastructure

Jeremy Coles University of Cambridge

UKTO Collaboration Meeting The Cosener's House, Abingdon, UK 15th March 2018

Why this talk?



What does operations cover?

Here's one model developed a few years ago largely from operating HEP distributed computing activities for many years.

The lists and examples given on the following slides are only intended to be illustrative and are not exhaustive. This overview is to encourage thinking about these topics.

There are overlaps between categories.

						Funding	source			
			UK	UK	GridPP	UK Other	EGI to UK	Non-UK	GridPP	1
	Task	Service	Requires?	Involvement	FTE	FTE	FTE	FTE	WP	
	1	1st and 2nd level support	Yes	Contributes				2.33		Cummons
EGI Services	2	Acceptance criteria	Yes	Feeds back				0.83		Summary
	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers
Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the
done in the	5	Catchall services	Yes	None				0.67		effort required to
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the globa
both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others) for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% b
international	11	Operations support	Yes	None				0.67		GridPP; and 1.3
community	12	SAM central services	Yes	None				2.33		from other UK
	13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.
	14	Security monitoring and related support tools	Yes	Feeds back				0.33		
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3	
	16	Software provisioning infrastructure	Yes	None				1.58		1
	17	Staged Rollout Infrastructure	Yes	None				0.83		1
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	
	19	Working with Emerging/New Technology Area		Contributes	1				WP-1	Summary
Services	20	Experiment Support & Liasion	Yes	Contributes	Total	effort co	ontribut	ted by	WP-3	-
	21	Management & Operations Planning for WLCC		Contributes	-				WP-3	-
Service tasks	22	S/W Verification with Experiment Workflows	Yes	Contributes		VLCG pa			WP-2	
required at an	tional 23 Networking, Data Transport & Metrics Ye	Yes	Contributes	estim	nated to	be 442	2 FTE.	WP-2	The UK contribute	
international		Yes	Co-chairs	The U	JK provi	des 10.	3% of	WP-2	a proportionate	
level forming	25	Security policy, operations & coordination	Yes	Co-leads		(8.7%)			WP-1 and 4	share of the effor
ontributions to	25	Software Support for Experiments	Yes	Contributes	1	•			WP-1 and 4 WP-2	required to perfo
WLCG (all UK	20	Middleware Staged Rollout	Yes	Contributes	fund	ed from	n GridPl	^o and	WP-2 WP-2	the international
contributions	28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%	funded	by the	Tier-2	WP-1	tasks required to
required by, or	20	Tier-1 Functional Services	Yes	Contributes	-	instit	utos)		WP-1 WP-1	run WLCG
a direct benefit	30	Tier-2 Functional Services	Yes	Contributes	-	mstit	utesj		WP-1 WP-2	-
to, the UK)	30	Enabling Tools and Applications	Indirectly	None	-				WP-Z	-
	31		Yes		0.11				140.2	
		Accounting - Benchmarking & Services		Core	0.11	0.5			WP-3	Summary
UK Services	33 34	Certificate Authority CA	Yes Yes	Core	1	0.5			WD 1 and 2	-
		Data Support for Experiments & Sites		Core	1				WP-1 and 2	-
	35	Documentation & Training	Yes	Core	0.5				WP-2	-
	36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2	-
Service tasks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national
required at a	38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be
national level to	39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by all
run the	40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in
production	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG
infrastructure	42	Running Regional Tools	Yes	Core	0.65		WP-2		-	
-	43	Security Evaluations & Response	Yes	Core	1.25				WP-1 and 2	-
	44	Support for Tier-3s	Yes	Core	0.2				WP-2	
	45	Ticket Follow-up	Yes	Core	0.19	0.01			WP-2	

Support

Who?

- Users of the resources
- Potential/new users
- Staff operating the infrastructure
- Surrounding groups impacted by the infrastructure

- Ticketing system
- Support team
- Documentation

							g Source			
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EGI Services	2	Acceptance criteria	Yes	Feeds back	1			0.83		Summary
	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers
Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the
done in the	5	Catchall services	Yes	None				0.67		effort required to
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the global
(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others) for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% b
international	11	Operations support	Yes	None		1		0.67		GridPP; and 1.3
community	12	SAM central services	Yes	None	<u> </u>			2.33		from other UK
,	13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.
	14	Security monitoring and related support tools	Yes	Feeds back				0.33		
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25	0.00	WP-3	1
	16	Software provisioning infrastructure	Yes	None	0.20		0.20	1.58		1
	17	Staged Rollout Infrastructure	Yes	None				0.83		1
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes	<u> </u>				WP-1 and 2	-
WLCG	19	Working with Emerging/New Technology Area		Contributes	1				WP-1	Summary
Services	20	Experiment Support & Liasion	Yes	Contributes	Total	effort c	ontribu	ted hy	WP-3	
		Management & Operations Planning for WLCG		Contributes				,	WP-3	
Service tasks		S/W Verification with Experiment Workflows	Yes	Contributes		VLCG pa			WP-2	
required at an	23	Networking, Data Transport & Metrics	Yes	Contributes	estim	nated to	o be 44	2 FTE.	WP-2	The UK contribute
international	24	Operations Coordination	Yes	Co-chairs	The U	JK prov	ides 10.	.3% of	WP-2 WP-2	a proportionate
level forming		Security policy, operations & coordination	Yes	Co-leads		(8.7%			WP-1 and 4	share of the effort
contributions to	26	Software Support for Experiments	Yes	Contributes	1				WP-1 and 4 WP-2	required to perfor
WLCG (all UK	20	Middleware Staged Rollout	Yes	Contributes	fund	ed fron	n GridP	P and	WP-2 WP-2	the international
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required by, or	20	Tier-1 Functional Services	Yes		-		utes)		WP-1 WP-1	run WLCG
a direct benefit				Contributes	-	msui	utesj		WP-1 WP-2	-
to, the UK)	30	Tier-2 Functional Services	Yes	Contributes	-				WP-Z	-
	31	Enabling Tools and Applications	Indirectly	None	0.11				14/0.2	
	32	Accounting - Benchmarking & Services	Yes	Core	0.11	0.5			WP-3	Summary
UK Services	33	Certificate Authority CA	Yes	Core	1	0.5			WD 1 and 2	-
	34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2	-
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Accounting/usage

Who?

- Management
- Funders
- Organisations
- Users

Why?

- Fair use
- Reporting progress
- Understanding usage

- Native tools/queries
- Parsing logs -> repo
- Benchmarking

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done in the	5	Catchall services	Yes	None				0.67		effort required to
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the globa
(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others) for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% b
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						0.01				

(Common) Service provision

Who?

- Users
- Organisations

Why?

- Technical competence
- Economies

How/examples?

- Job submission system
- Catalogues
- Helpdesk
- Information portal
- Certificate Authority
- Wiki

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level forming	nal Operations Coordination Y ing 25 Security policy operations & coordination Y	Yes	Co-chairs	The U	JK prov	ides 10.	3% of	WP-2	share of the effort	
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Security

For who?

- Providers
- Users (data)
- Administrators

Why?

- Resource targets.
- Decrease disruption
- Ensure proper use

- Monitoring (Pakiti)
- Network monitoring
- Security Ops Centre
- Tracking OS/MW patching

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Monitoring

For who?

- Users
- Administrators

Why?

- Maintain availability
- Spot issues before users
- Maximise utilisation
- Improve efficiency

- Automated checks
- Metric based reports
- Team/on-duty checks

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	14	Security monitoring and related support tools	Yes	Feeds back				0.33		1
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3	1
	16	Software provisioning infrastructure	Yes	None				1.58		1
	17	Staged Rollout Infrastructure	Yes	None				0.83		
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Summary
	19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Summary
Services	20	Experiment Support & Liasion	Yes	Contributes	Total e	effort co	ontribu	ted by	WP-3	
Service tasks	21	Management & Operations Planning for WLCG	Yes	Contributes	1 v	VLCG pa	rtners	is	WP-3	
required at an	22	S/W Verification with Experiment Workflows	Yes	Contributes		ated to			WP-2	The UK contribute
international	23	Networking, Data Transport & Metrics	WP-2	a proportionate						
level forming	24	Operations Coordination	WP-2	share of the effort						
contributions to	25	Security policy, operations & coordination	Yes	Co-leads	this	(8.7% (or 38.5	FTE	WP-1 and 4	required to perfor
WLCG (all UK	26	Software Support for Experiments	Yes	Contributes	fund	ed from	GridP	Pand	WP-2	the international
contributions	27	Middleware Staged Rollout	Yes	Contributes					WP-2	tasks required to
required by, or	28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%1	funded	by the	Her-2	WP-1	run WLCG
a direct benefit	29	Tier-1 Functional Services	Yes	Contributes		instit	utes)		WP-1	
to, the UK)	30	Tier-2 Functional Services	Yes	Contributes					WP-2	
to, the OK)	31	Enabling Tools and Applications	Indirectly	None						
	32	Accounting - Benchmarking & Services	Yes	Core	0.11				WP-3	Summary
UK Services	33	Certificate Authority CA	Yes	Core		0.5				Summary
	34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2	
	35	Documentation & Training	Yes	Core	0.5				WP-2	
	36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2	
Service tasks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national
required at a	38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be
national level to	39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by all
run the	40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in
production	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG
infrastructure	42	Running Regional Tools	Yes	Core	0.65				WP-2	
masuucure	43	Security Evaluations & Response	Yes	Core	1.25				WP-1 and 2	
	44	Support for Tier-3s	Yes	Core	0.2				WP-2	
	45	Ticket Follow-up	Yes	Core	0.19	0.01			WP-2	

"Software"

For who?

- Users
- Service providers
- Operators

Why?

- New releases
- New components
- Running on new platforms

- Repositories
- Verification
- Staged rollout
- Containerisation/images

	T						Funding	source			
	L			UK	UK	GridPP	UK Other	EGI to UK	Non-UK	GridPP	
		Task	Service	Requires?	Involvement	FTE	FTE	FTE	FTE	WP	
		1	1st and 2nd level support	Yes	Contributes				2.33		Summary
EGI Servio	ces	2	Acceptance criteria	Yes	Feeds back				0.83		Summary
		3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers
Service tas	ks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the
done in th	e	5	Catchall services	Yes	None				0.67		effort required to
context of E	GI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the glob
(both by the	UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others)	for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit	of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole		10	Operations Portal	Yes	None				2.00		EGI; 7.3%
internation	al	11	Operations support	Yes	None				0.67		GridPP; and 1
communit	y I	12	SAM central services	Yes	None				2.33		from other UK
		13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.
		14	Security monitoring and related support tools	Yes	Feeds back				0.33		
		15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3	
		16	Software provisioning infrastructure	Yes	None				1.58		
	(17	Staged Rollout Infrastructure	Yes	None				0.83		
WLCG		18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Summary
	_	19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Junnary
Service	s	20	Experiment Support & Liasion	Yes	Contributes	Total e	effort co	ontribu	ted by	WP-3	
Service tas	ke	21	Management & Operations Planning for WLCG		Contributes	v V	/LCG pa	rtners	is	WP-3	
required at		22	S/W Verification with Experiment Workflows	Yes	Contributes			be 44		WP-2	The UK contribut
internation		23	Networking, Data Transport & Metrics	Yes	Contributes					WP-2	a proportionate
level formi		24	Operations Coordination	Yes	Co-chairs] The U	K provi	des 10.	WP-2	share of the effo	
contribution	~	25	Security policy, operations & coordination	Yes	Co-leads	this	(8.7%)	or 38.5	FTE	WP-1 and 4	required to perfe
WLCG (all L		26	Software Support for Experiments	Yes	Contributes	fund	d from	GridPl	and	WP-2	the international
contributio		27	Middleware Staged Rollout	Yes	Contributes			by the		WP-2	tasks required to
required by		28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%1			ner-z	WP-1	run WLCG
a direct ben		29	Tier-1 Functional Services	Yes	Contributes		instit	utes)		WP-1	
to, the UK		30	Tier-2 Functional Services	Yes	Contributes					WP-2	
10, 110 01	,	31	Enabling Tools and Applications	Indirectly	None						
		32	Accounting - Benchmarking & Services	Yes	Core	0.11				WP-3	Summary
UK Servic	es	33	Certificate Authority CA	Yes	Core		0.5				Jannary
		34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2	
		35	Documentation & Training	Yes	Core	0.5				WP-2	
		36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2	
Service tas	ks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national
required at		38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be
national leve		39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by a
run the		40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in
productio	n I	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG
infrastructu		42	nning Regional Tools Yes Core 0.65 WP-2								
		43	Security Evaluations & Response							WP-1 and 2	
		44	Support for Tier-3s	Yes	Core	0.2				WP-2	
		45	Ticket Follow-up	Yes	Core	0.19	0.01			WP-2	

"Core" Infrastructure

Who?

- Providers
- Users

Why?

- Instances shared
- Reduce maintenance
- Expertise

- Run in VMs
- Repositories
- Monitoring services
- Dashboards
- Federation services
- Portals
- Information registry
- CA

						Funding	g Source			
			UK	UK	GridPP	UK Other	EGI to UK	Non-UK	GridPP	
	Task	Service	Requires?	Involvement	FTE	FTE	FTE	FTE	WP	
	1	1st and 2nd level support	Yes	Contributes				2.33		Summary
EGI Services	2	Acceptance criteria	Yes	Feeds back				0.83		Juninary
	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers
Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the
done in the	5	Catchall services	Yes	None				0.67		effort required to
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the globa
(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others) for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3%
international	11	Operations support	Yes	None				0.67		GridPP; and 1.
community	12	SAM central services	Yes	None				2.33		from other UK
	13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.
	14	Security monitoring and related support tools	Yes	Feeds back				0.33		1
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3	1
100 million (100 million)	16	Software provisioning infrastructure	Yes	None				1.58		1
	17	Staged Rollout Infrastructure	Yes	None				0.83		
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Cumment
	19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Summary
Services	20	Experiment Support & Liasion	Yes	Contributes	Total e	effort co	ontribut	ted by	WP-3	
Service tasks	21	Management & Operations Planning for WLCG	Yes	Contributes	1 v	VLCG pa	artners	is	WP-3	
	22	S/W Verification with Experiment Workflows	Yes	Contributes					WP-2	The UK contribut
required at an international	23	Networking, Data Transport & Metrics	Yes	Contributes		nated to			WP-2	a proportionate
level forming	24 Operations Coordination			Co-chairs	The U	IK provi	des 10.	3% of	WP-2	share of the effor
contributions to	25	Security policy, operations & coordination	Yes	Co-leads	this	(8.7%)	or 38.5	FTE	WP-1 and 4	required to perfo
WLCG (all UK	26	Software Support for Experiments	Yes	Contributes	fund	ed from	GridP	and	WP-2	the international
contributions	27	Middleware Staged Rollout	Yes	Contributes					WP-2	tasks required to
required by, or	28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%1	funded	by the	Tier-2	WP-1	run WLCG
a direct benefit	29	Tier-1 Functional Services	Yes	Contributes		instit	utes)		WP-1	
	30	Tier-2 Functional Services	Yes	Contributes					WP-2	
to, the UK)	31	Enabling Tools and Applications	Indirectly	None						
	32	Accounting - Benchmarking & Services	Yes	Core	0.11				WP-3	Summary
UK Services	33	Certificate Authority CA	Yes	Core		0.5				Summary
	34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2]
	35	Documentation & Training	Yes	Core	0.5				WP-2	
	36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2	
Service tasks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national
required at a	38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be
national level to	39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by al
run the	40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in
production	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG
	42	Running Regional Tools	Yes	Core	0.65				WP-2	WLCG
infrastructure	43	Security Evaluations & Response	Yes	Core	1.25				WP-1 and 2	1
	44	Support for Tier-3s	Yes	Core	0.2				WP-2	1

Interoperation, policy & management

Who?

- Management
- Users
- Organisations
- Administrators

Why?

- Coordination essential
- Best practice
- Contractual implications

- Meetings
- Joint policy development
- Adoption of best practice from international WGs

						Funding	g Source						
			UK	UK	GridPP	UK Other	EGI to UK	Non-UK	GridPP	1			
	Task	Service	Requires ?	Involvement	FTE	FTE	FTE	FTE	WP				
	1	1st and 2nd level support	Yes	Contributes				2.33		Summary			
EGI Services	2	Acceptance criteria	Yes	Feeds back				0.83		Summary			
	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers			
Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the			
done in the	5	Catchall services	Yes	None				0.67		effort required to			
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the global			
(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as			
and others) for	8	Message Broker Network	Yes	None				0.42		follows:			
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by			
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% b			
international	11	Operations support	Yes	None				0.67		GridPP; and 1.3			
community	12	SAM central services	Yes	None				2.33		from other UK			
	13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.			
	14	Security monitoring and related support tools	Yes	Feeds back				0.33					
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3				
	16	Software provisioning infrastructure	Yes	None				1.58					
	17	Staged Rollout Infrastructure	Yes	None				0.83					
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Summary			
	19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Summary			
Services	20	Experiment Support & Liasion	Yes	Contributes	Total	effort c	ontribu	ted by	WP-3				
Service tasks	21	Management & Operations Planning for WLCC	e Yes	Contributes	1 v	VLCG pa	artners	is	WP-3	1			
required at an	22	S/W Verification with Experiment Workflows	Yes	Contributes		nated to			WP-2	The UK contribute			
international	national 23 Networking, Data Transport & Metrics			Contributes					WP-2				
level forming	24	Operations Coordination	Yes	Co-chairs	The	JK prov	des 10.	3% Of	WP-2	a proportionate share of the effort			
contributions to	25	Security policy, operations & coordination	Yes	Co-leads	this	(8.7%)	or 38.5	FTE	WP-1 and 4	required to perfor			
WLCG (all UK	26	Software Support for Experiments	Yes	Contributes	fund	ed fron	GridP	and	WP-2	the international			
contributions	27	Middleware Staged Rollout	Yes	Contributes					WP-2	tasks required to			
required by, or	28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%	funded		Her-2	WP-1	run WLCG			
a direct benefit	29	Tier-1 Functional Services	Yes	Contributes		instit	utes)		WP-1				
to, the UK)	30	Tier-2 Functional Services	Yes	Contributes					WP-2				
to, the okj	31	Enabling Tools and Applications	Indirectly	None									
	32	Accounting - Benchmarking & Services	Yes	Core	0.11				WP-3	Summary			
UK Services	33	Certificate Authority CA	Yes	Core		0.5				Junnary			
	34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2				
	35	Documentation & Training	Yes	Core	0.5				WP-2				
	36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2				
Service tasks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national			
required at a	38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be			
national level to	39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by all			
run the	40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in			
production	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG			
infrastructure	42	Running Regional Tools	Yes	Core	0.65				WP-2	WLCG			
mastructure	43	Security Evaluations & Response	Yes	Core	1.25				WP-1 and 2				
	44	Support for Tier-3s	Yes	Core	0.2				WP-2				
	45	Ticket Follow-up	Yes	Core	0.19	0.01			WP-2	1			

Ad-hoc/development

Who?

- Users
- Organisations
- Administrators

Why?

- Technology evolves
- Approaches evolve

How?

- Pilot new approaches
- Test queues
- Landscape reviews

•

						Funding	g Source			
			UK	UK	GridPP	UK Other	EGI to UK	Non-UK	GridPP]
	Task	Service	Requires ?	Involvement	FTE	FTE	FTE	FTE	WP	
	1	1st and 2nd level support	Yes	Contributes				2.33		Summary
EGI Services	2	Acceptance criteria	Yes	Feeds back				0.83		Summary
	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers
Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50		WP-3	about 14% of the
done in the	5	Catchall services	Yes	None				0.67		effort required to
context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the globa
(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as
and others) for	8	Message Broker Network	Yes	None				0.42		follows:
the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by
the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% b
international	11	Operations support	Yes	None				0.67		GridPP; and 1.3
community	12	SAM central services	Yes	None				2.33		from other UK
	13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.
	14	Security monitoring and related support tools	Yes	Feeds back				0.33		1
	15	Service registry (GOCDB)	Yes	Leads	0.25		0.25		WP-3	1
	16	Software provisioning infrastructure	Yes	None				1.58		
	17	Staged Rollout Infrastructure	Yes	None				0.83		
WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Summary
	19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Summary
Services	20	Experiment Support & Liasion	Yes	Contributes	Total e	effort co	ontribu	ted by	WP-3	
Service tasks	21	Management & Operations Planning for WLCG	Yes	Contributes	1 v	VLCG pa	artners	is	WP-3	
required at an	22	S/W Verification with Experiment Workflows	Yes	Contributes					WP-2	The UK contribute
international	23	Networking, Data Transport & Metrics	Yes	Contributes		nated to			WP-2	a proportionate
level forming	24	Operations Coordination	Yes	Co-chairs	The U	JK provi	des 10.	3% of	WP-2	share of the effor
contributions to	25	Security policy, operations & coordination	Yes	Co-leads	this	(8.7%)	or 38.5	FTE	WP-1 and 4	required to perfor
WLCG (all UK	26	Software Support for Experiments	Yes	Contributes	fund	ed from	GridP	Pand	WP-2	the international
contributions	27	Middleware Staged Rollout	Yes	Contributes					WP-2	tasks required to
required by, or	28	Tier-0 Functional Services	Yes	Phaseing Out	1.5%	funded		Her-2	WP-1	run WLCG
a direct benefit	29	Tier-1 Functional Services	Yes	Contributes	1	instit	utes)		WP-1	
to, the UK)	30	Tier-2 Functional Services	Yes	Contributes	1				WP-2	
to, the OKJ	31	Enabling Tools and Applications	Indirectly	None						
	32	Accounting - Benchmarking & Services	Yes	Core	0.11				WP-3	Summary
UK Services	33	Certificate Authority CA	Yes	Core		0.5				Summary
	34	Data Support for Experiments & Sites	Yes	Core	1				WP-1 and 2	
	35	Documentation & Training	Yes	Core	0.5				WP-2	
	36	Infrastructure services & testing	Yes	Core	1.6				WP-1 and 2	
Service tasks	37	Interoperation across e-Infrastructures	Yes	Core	0.2				WP-1 and 2	A set of national
required at a	38	Infrastructure Monitoring	Yes	Core	1.5				WP-2	tasks need to be
national level to	39	Non-LHC experiment support	Yes	Core	1.2				WP-2	undertaken by all
run the	40	'On-Duty' Operations Oversight	Yes	Core	0.3	0.1			WP-1 and 2	particpants in
production	41	Coordination & Management	Yes	Core	0.6				WP-3	WLCG
infrastructure	42	Running Regional Tools	Yes	Core	0.65				WP-2	WICG
infrastructure	43	Security Evaluations & Response	Yes	Core	1.25				WP-1 and 2	
	44	Support for Tier-3s	Yes	Core	0.2				WP-2	
					0.19					

What else?

							Funding	g Source				
Who?				υк	UK	GridPP		EGI to UK		GridPP		
		Task	Service	Requires?	Involvement	FTE	FTE	FTE	FTE	WP		
-		1	1st and 2nd level support	Yes	Contributes				2.33		-	
	EGI Services	2	Acceptance criteria	Yes	Feeds back				0.83		Summary	Тс
	Lei Sei Viees	3	Accounting and Metric Portal	Yes	None				0.50		The UK delivers	Ū
Why?	Service tasks	4	Accounting Repository	Yes	Leads	0.75	0.25	0.50	0.00	WP-3	about 14% of the	Ū
,.	done in the	5	Catchall services	Yes	None		0.20		0.67		effort required to	G
	context of EGI	6	Collaboration tools/IT support	Indirectly	None				1.00		provide the global	N
	(both by the UK	7	Incident management helpdesk	Yes	None				1.00		EGI services as	Ë.
How?	and others) for	8	Message Broker Network	Yes	None				0.42		follows:	
nuw :	the benefit of	9	Monitoring central services	Yes	Feeds back				1.00	WP-2	5.3% funded by	
	the whole	10	Operations Portal	Yes	None				2.00		EGI; 7.3% by	
	international	11	Operations support	Yes	None				0.67		GridPP; and 1.3%	
	community	12	SAM central services	Yes	None				2.33		from other UK	
		13	Security coordination	Yes	Co-leads	0.40		0.27	1.00	WP-3	sources.	
		14	Security monitoring and related support tools	Yes	Feeds back				0.33			
		15	Service registry (GOCDB)	Yes		0.25		0.25		WP-3	1	
		16	Software provisioning infrastructure						1.58		1	
		17	Staged Rollout Infrastructure		None				0.83			
	WLCG	18	Running Shared Infrastructure Nodes	Yes	Contributes					WP-1 and 2	Summary	Ye
 Support 		19	Working with Emerging/New Technology Area	Yes	Contributes					WP-1	Summary	In
Accounting/usage	Services	20	Experiment Support & Liasion	Yes	Contributes	e	effort co	ontribu	ted by	WP-3		3
. .	Service tasks	21	Management & Operations Planning for WLCG	Yes	Contributes	V	VLCG pa	artners	is	WP-3		U
 (Common) Service provision 	required at an	22	S/W Verification with Experiment Workflows	Yes	Contributes		nated to			WP-2	The UK contributes	
	international	23	Networking, Data Transport & Metrics	Yes	Contribute					WP-2	a proportionate	D
Security	level forming	24	Operations Coordination	Yes			IK provi			WP-2	share of the effort	
Monitoring	contributions to	25	Security policy, operations & coordination	Yes		this	(8.7%)	or 38.5	FTE	WP-1 and 4	required to perform	
-	WLCG (all UK	26	Software Support for Experiments	Yes	butes	fund	ed from	n GridPl	P and	WP-2	the international	
 "Software" 	contributions	27	Middleware Staged Rollout	Yes	butes		funded			WP-2	tasks required to	
"Core" infrastructure	required by, or	28	Tier-0 Functional Services	Yes	ng Out	1.570			IICI-Z	WP-1	run WLCG	P
	a direct benefit	29	Tier-1 Functional Services	Yes	ibutes		Instit	utes)		WP-1		
 Interoperation, policy & management 	to, the UK)	30	Tier-2 Functional Services	Yes	Contributes					WP-2	4	L.,
Ad-hoc/Development		31	Enabling Tools and Applications	Indirectly	None							w
Au-noc/Development		32	Accounting - Benchmarking & Services	Yes	e	0.11				WP-3	Summary	L
	UK Services	33	Certificate Authority CA	Yes	e		0.5					—
		34	Data Support for Experiments & Sites	Yes	Corre	1				WP-1 and 2	-	-
		35 36	Documentation & Training	Yes	Core	0.5				WP-2	4	—
		30	Infrastructure services & testing Interoperation across e-Infrastructures	Yes Yes	Core Core	1.6 0.2				WP-1 and 2 WP-1 and 2	4	-
	Service tasks	38	Infrastructure Monitoring	Yes	Core	1.5				WP-1 and 2 WP-2	A set of national	-
	required at a		Non-LHC experiment support	Yes							tasks need to be	in
	national level to	40	'On-Duty' Operations Oversight	Yes	Core Core	1.2 0.3	0.1			WP-2 WP-1 and 2	undertaken by all	in
	run the	40	Coordination & Management	Yes	Core	0.3	0.1			WP-1 and 2	particpants in	
	production	41	Running Regional Tools	Yes	Core	0.65				WP-2	WLCG	
	infrastructure	42	Security Evaluations & Response	Yes	Core	1.25				WP-2 WP-1 and 2		In
-		43	Support for Tier-3s	Yes	Core	0.2				WP-1 and 2 WP-2		H"
		44	Ticket Follow-up	Yes	Core	0.19	0.01			WP-2		TI
	-	45	newer onow up	105	Core	0.15	0.01					
	1						1			1	1	- 2

To get the discussion started based on a <u>quick</u> survey.... current landscape

AREA		UKTO	EUCLID		UKAEA	ALC/ISIS	STFC SCD/		DIAMOND	aLIGO	LSST	SKA/Others	HEP		
Support	Now	Future						FP							
Accounting														- • •	
Services														Exists	
Security				!										Started Needed	
Monitoring															
"Software"															
"Core"															
Policy/interoperation/ management															
Ad-hoc/Dev															
Other															