WLCG critical services: reminder

Maarten Litmaath
Andrea Sciabà

WLCG MB
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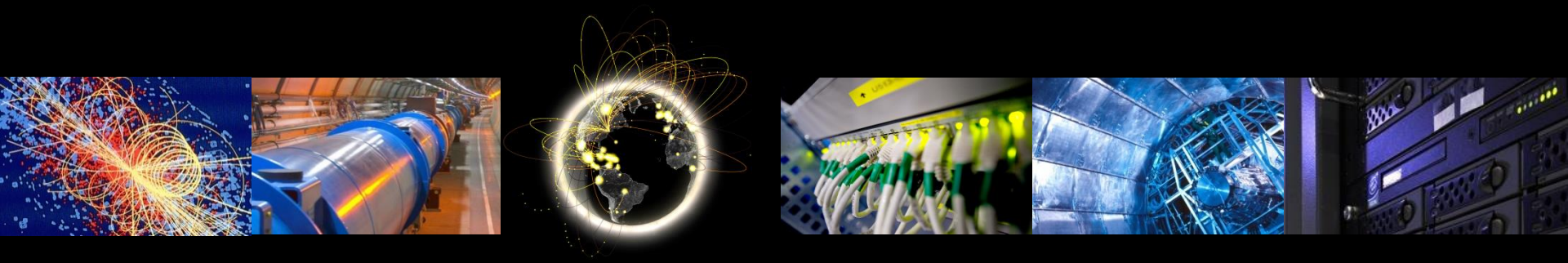


WLCG
Worldwide LHC Computing Grid

CERN

Basic concepts

- WLCG maintains a list of “critical services” which contains information about their “importance” for the LHC experiments
  - The list includes mostly services provided by CERN
  - The rating is based on urgency and impact
  - The list and the ratings are regularly reviewed with WLCG, experiment and Tier-0 representatives
    - Last time was in December

https://twiki.cern.ch/twiki/bin/view/LCG/WLCGCritSvc

Definitions

- Urgency is the delay after which the unavailability of a service reaches its full impact
  - Measures how quickly the problem should be resolved
- Impact is the amount of "damage" to operations or to people done by the unavailability of the service
  - Measures how serious the problem is
- Notes
  - The numbers refer to a service interruption: real world incidents may have different urgency/impact

Urgency

Level	Time (hours)
10	0
9	0.5
8	1
7	2
6	4
5	6
4	12
3	24
2	48
1	72

Impact on operations

Level	Definition
10	Most operations services stop
9	Some operations services stop
8	One operations service stops
7	Most operations services disrupted
6	Some operations services disupted
5	One operations service disrupted
4	Some support services stop
3	One support service stops
2	Some support services disrupted
1	One support service disrupted

Impact on people

Level	Definition
10	Whole VO affected
8	Users affected > 50%
5	10% < users affected < 50%
3	Users affected < 10%
1	A single user affected

Response time and alarms

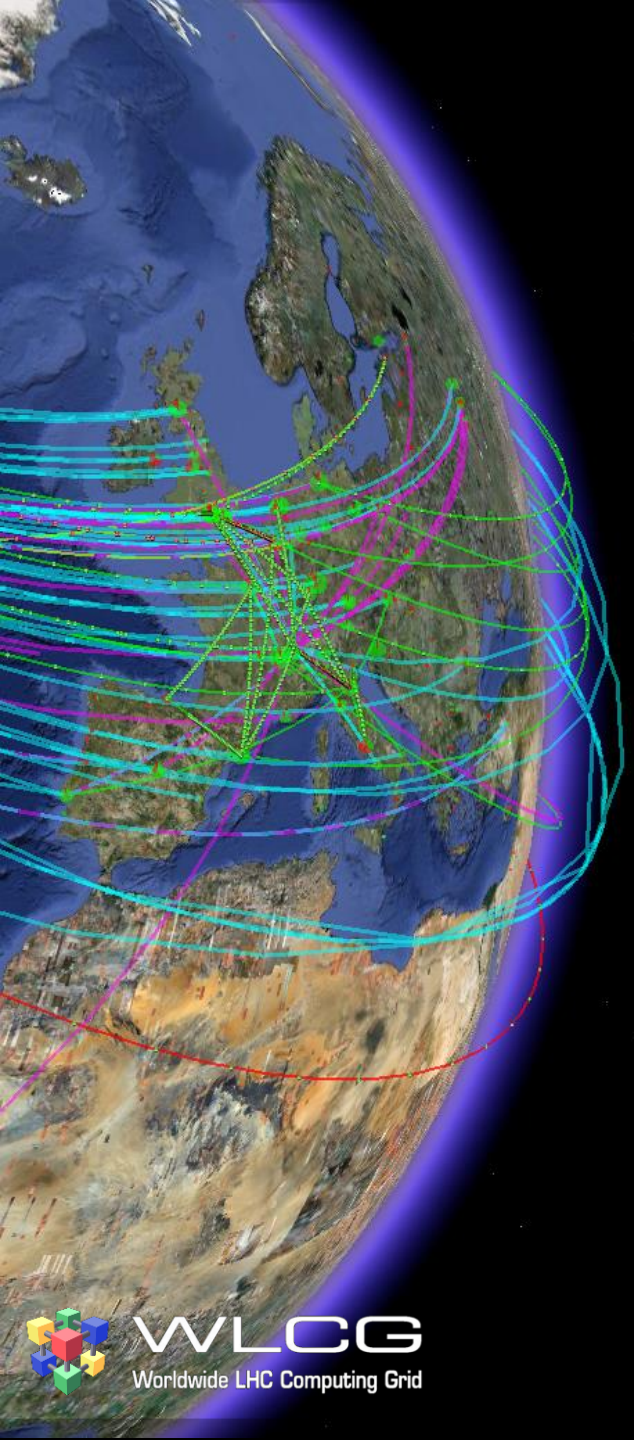
- Response times are formally still governed by the LCG MoU Annex 3
- Alarm tickets are used to report serious problems at any time
  - Sites should react within the expected response time

Tier-0

Service	Maximum delay in responding to operational problems			Average availability measured on an annual basis	
	Service interruption	Degradation of the capacity of the service by more than 50%	Degradation of the capacity of the service by more than 20%	During accelerator operation	At all other times
Raw data recording	4 hours	6 hours	6 hours	99%	n/a
Event reconstruction or distribution of data to Tier-1 Centres during accelerator operation	6 hours	6 hours	12 hours	99%	n/a
Networking service to Tier-1 Centres during accelerator operation	6 hours	6 hours	12 hours	99%	n/a
All other Tier-0 services	12 hours	24 hours	48 hours	98%	98%
All other services – prime service hours	1 hour	1 hour	4 hours	98%	98%
All other services[3] – outwith prime service hours[4]	12 hours	24 hours	48 hours	97%	97%

Tier-1

Service	Maximum delay in responding to operational problems			Average availability[2] measured on an annual basis	
	Service interruption	Degradation of the capacity of the service by more than 50%	Degradation of the capacity of the service by more than 20%	During accelerator operation	At all other times
Acceptance of data from the Tier-0 Centre during accelerator operation	12 hours	12 hours	24 hours	99%	n/a
Networking service to the Tier-0 Centre during accelerator operation	12 hours	24 hours	48 hours	98%	n/a
Data-intensive analysis services, including networking to Tier-0, Tier-1 Centres outwith accelerator operation	24 hours	48 hours	48 hours	n/a	98%
All other services[3] – prime service hours	2 hour	2 hour	4 hours	98%	98%
All other services[3] – outwith prime service hours[5]	24 hours	48 hours	48 hours	97%	97%



Summary

- The WLCG critical services table is used by the experiments to communicate the importance of services to the site and WLCG
  - Only done for the Tier-0, extension to Tier-1/2 never requested
- The response times (to Alarm tickets) are defined in the MoU