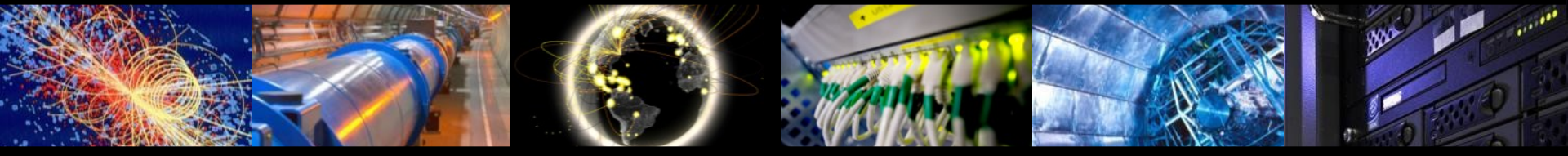


WLCG and LHCOPN operations

Jamie Shiers

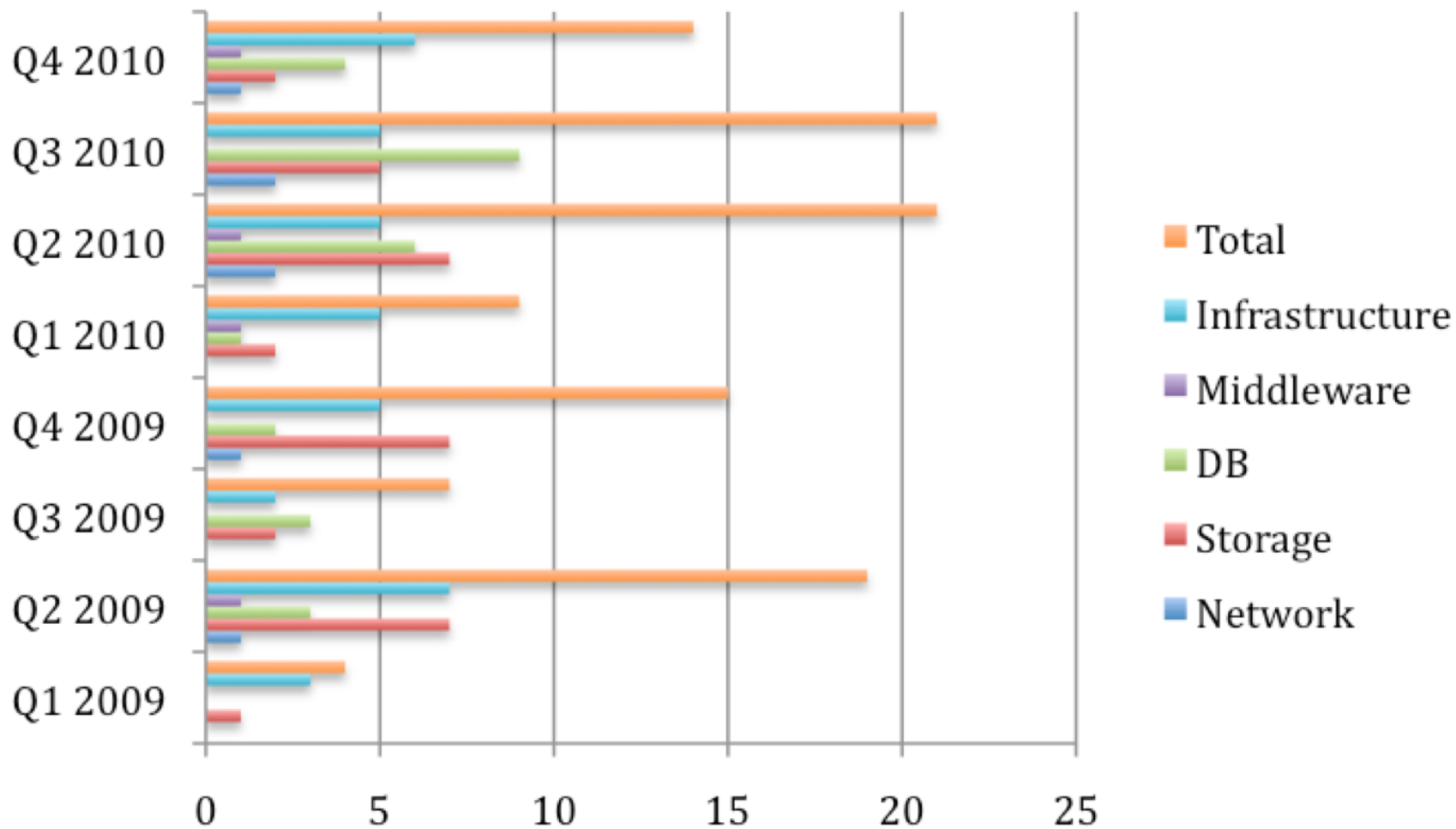
LHC OPN meeting
11th February 2011, Lyon



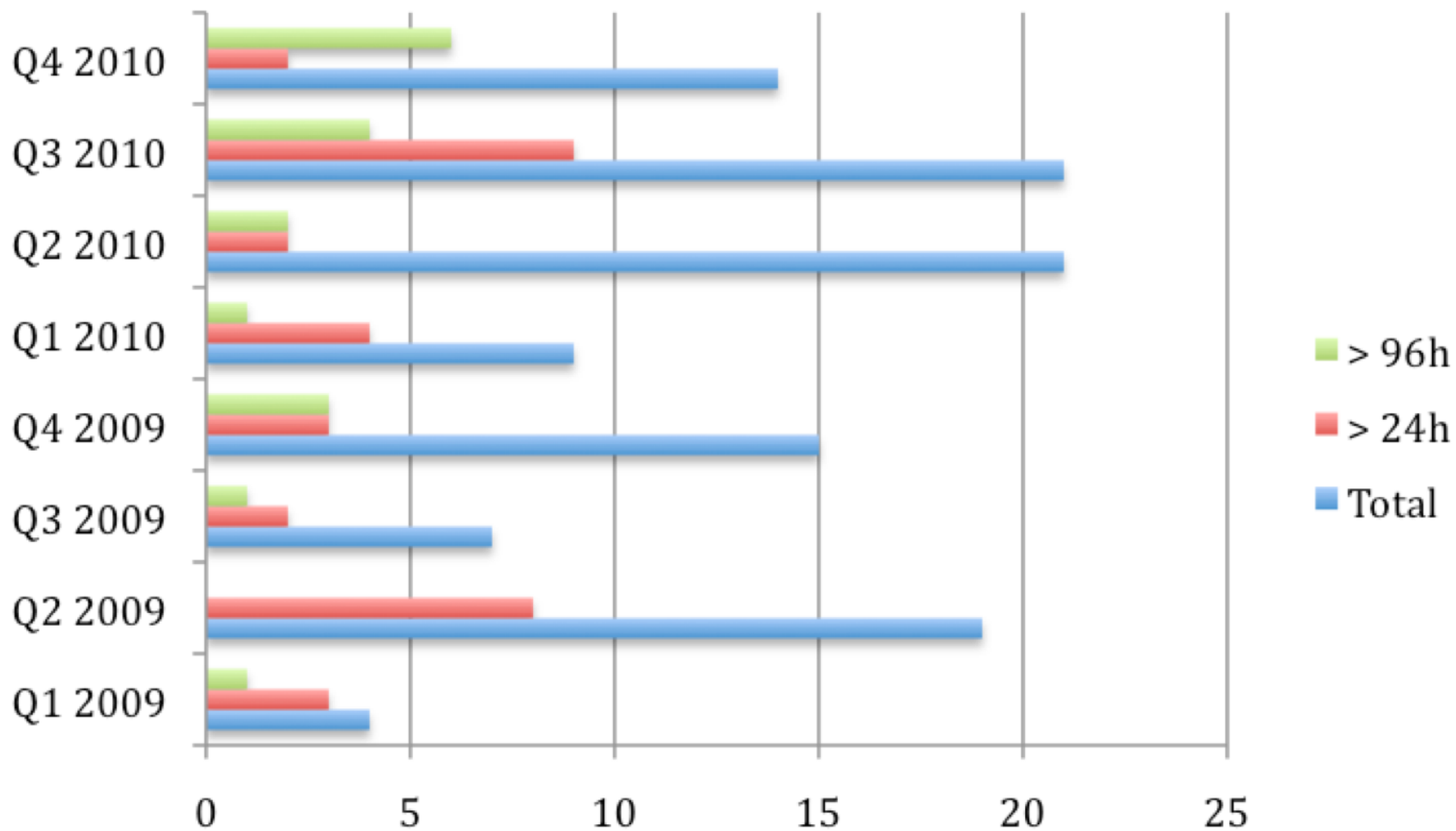
Overview of WLCG Operations

- Since CHEP 2010, we have categorized WLCG Service Incidents into:
 - Infrastructure;
 - Middleware;
 - Database;
 - Storage;
 - Network.
- We have also broken down by time-to-resolution
- In some areas, significant improvement is probably **not** realistic, whereas in others it is...

Service Incidents by Area



Time to Resolution





Where Can We Do Better?

- These are not the only problems but just those corresponding to a significant service degradation or outage wrt MoU
- This covers CERN plus all Tier1 sites so the absolute number is probably acceptable
- The number of incidents that take more than 24 hours and in particular more than 96 hours is clearly an area to address
- Let's drill-down...

Major Issues of Q4

SITE	DATE(S)	DURATION	AREA	SUMMARY
CERN	18 Dec	5 days	DB	Problems in restoring DB
CERN	07 Dec	7 days	INFRA	CVS repository migration
CERN	Nov / Dec	8 days	DB	Node reboots
IN2P3	-	Months	INFRA	Shared s/w area problems
IN2P3	-	Weeks	STORAGE	
CNAF	06 Oct	5 days	STORAGE	CMS storage down due to GPFS bug
CNAF/ BNL	-	Months	NETWORK	Problem still open

1. Ability of all sites to be able to recover DBs
 - Other deployment strategies may make sense
2. Handling of network incidents
3. [Storage issues]



So Where Are We?

- For me, the number one issue – even before problem resolution (some may disagree) – is information flow
 - I have used the airline analogy too often, but believe it is still valid...
- And then comes resolution
- For information flow, we have the daily WLCG operations meeting plus updates to relevant GGUS tickets
 - Both are both useful and IMHO needed...



Information Flow

- Users (as with travellers) expect regular updates on issues
- The attendees at the daily meeting include the experiment operations contacts (typically weekly shifts – handover day varies)
- Plus representatives from CERN and Tier1 sites
- As with other problems where these people are not necessarily the experts, they nevertheless take care of the necessary information flow
 - e.g. by asking the experts offline and feeding back...
- This model works well – no need to change



Problem Resolution

- Works well in case of e.g. network cut
- Does not always work well in case of degradation
- How do we improve on this?

- We need a model that is both simple and acceptable to all parties
- And it needs to be workable.
- We do not seem to have one yet...



Discussion...