

Deployed Middleware Support Unit Kickoff Meeting

Michael Gronager, PhD

NDGF Director

Amsterdam, June 3rd 2010

Meeting Agenda

- 13.00 Meeting start
- 13.05 Round table presentation
- 13.15 Presentation of the DMSU, idea, vision, and tasks
- 13.45 Mapping of the areas of expertise and available systems and agreeing on the mode of work
- 14.30 Handling the present bug as a first exercise !
- 14.45 AOB
- 15.00 Joining in on the SA2 meeting

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DMSU Idea, Vision, and Tasks

- To ensure a smooth and flexible middleware service for EGI and the NGIs:
 - Act as buffer between the users, sites and the middleware providers
 - Provide fixes or workarounds to sites
 - Track trends, long term problems, and robustness features
- Close collaboration with M/W providers and the Resource sites

Ensuring a stable infrastructure

- Understanding of the infrastructure
 - Persistent and highly skilled support staff that can help and educate sites, understand problems and take the proper action
 - Production quality tools and middleware
 - Procedures for escalation, and proper actions
- Users and sites are NOT satisfied with the current tools and middleware – best indication: they build their own tools (pilot jobs, experiment specific data management, bypass m/w by ssh login...)
- The DMSU will help in solving problems on the short as well help in defining long term proposed changes to tools and m/w

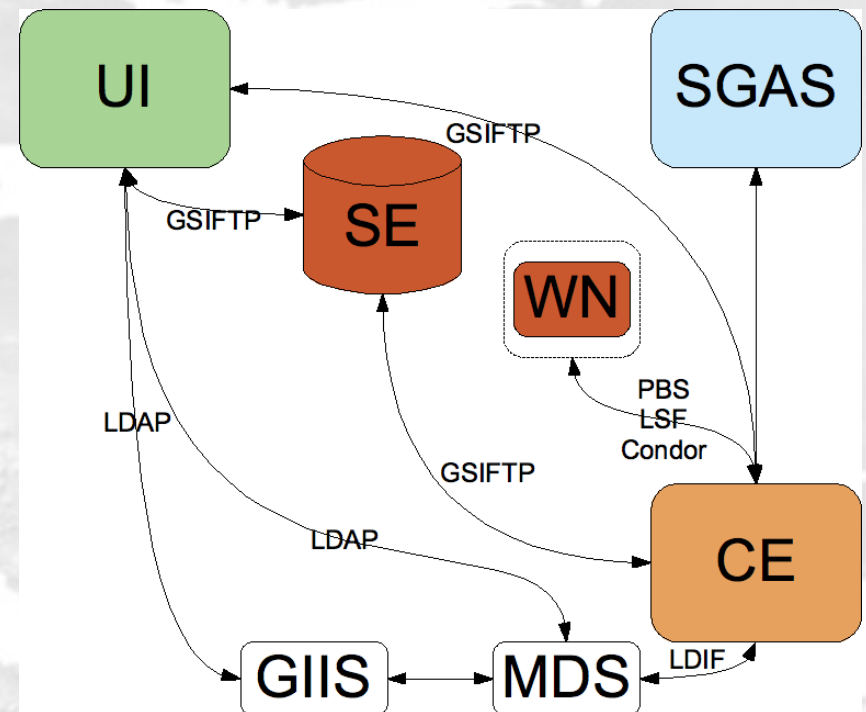
Example: Improving up/downloaders in ARC

The ARC-CE download (as part of the job flow) files to a local cluster filesystem (nfs, lustre, gpfs) also used as cache.

Has worked fine for years but some problems occurred earlier this year:

Users: jobs died, seemed to be hanging data staging

Sites: load on the CE high, load on nfs server high, frequent restart



Example: Improving up/downloaders in ARC

The ARC-CE download (as part

Clever sysadmin:

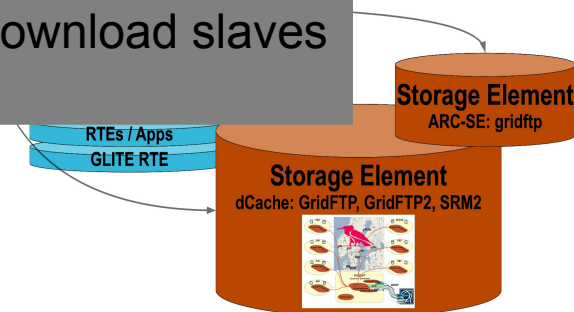
- Debug problem...
- Located it to the data transfer
- Could be solved or remedied by adding more CEs to same cluster
- Not optimal solution... dialogue with developers:
- Support for file system servers acting as up/download slaves implemented

Has

Use

changing data staging,
resubmit...

Sites: load on the CE high, to
small throughput



Example: Improving up/downloaders in ARC

The ARC-CE download (as part

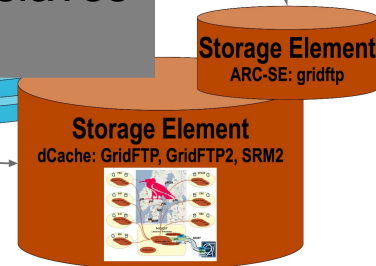
Clever sysadmin:

- Debug problem...
- Located problem caused by larger clusters and certain kind of jobs
- Could not detect for a user
- Not obvious, would have been hard to detect for a user
- Support trivial, add bigger hardware helped, but not optimal
- Implemented an example of really improved middleware as a result!

to same

load slaves

:/ Apps
ITE RTE



Sites: load on the CE high, to small throughput

Example: Improving up/downloaders in ARC

The ARC-CE download (as part

Clever sysadmin:

- Debug problem...

- Local

- Could

- Not o

- Supp

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Problem caused by larger clusters and certain kind of jobs

DMSU operationalizes this – good system experts with access to production systems.

to same

d slaves

Has

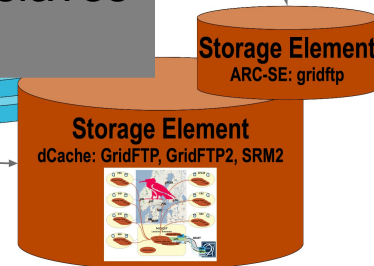
Use

changing data

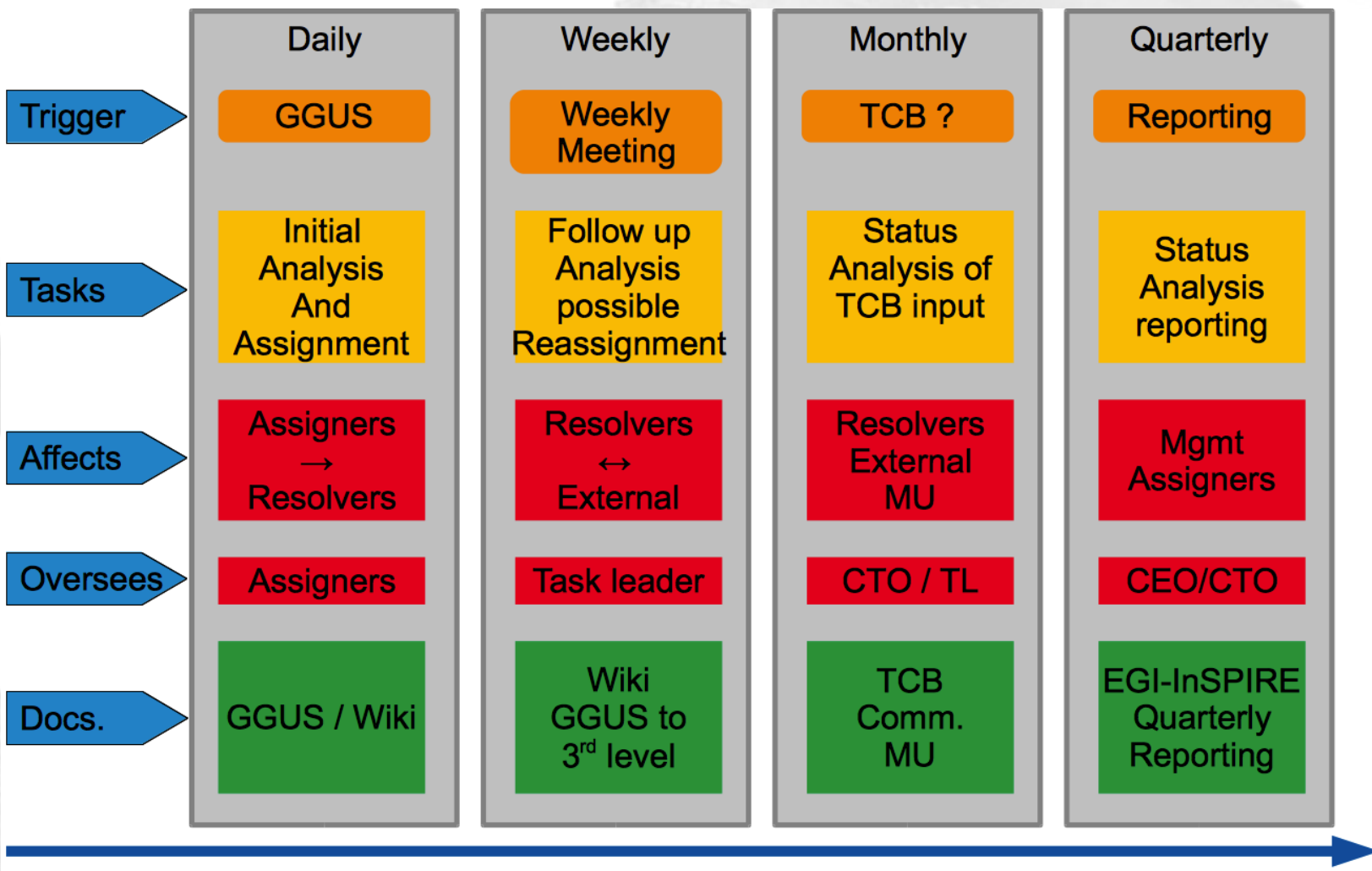
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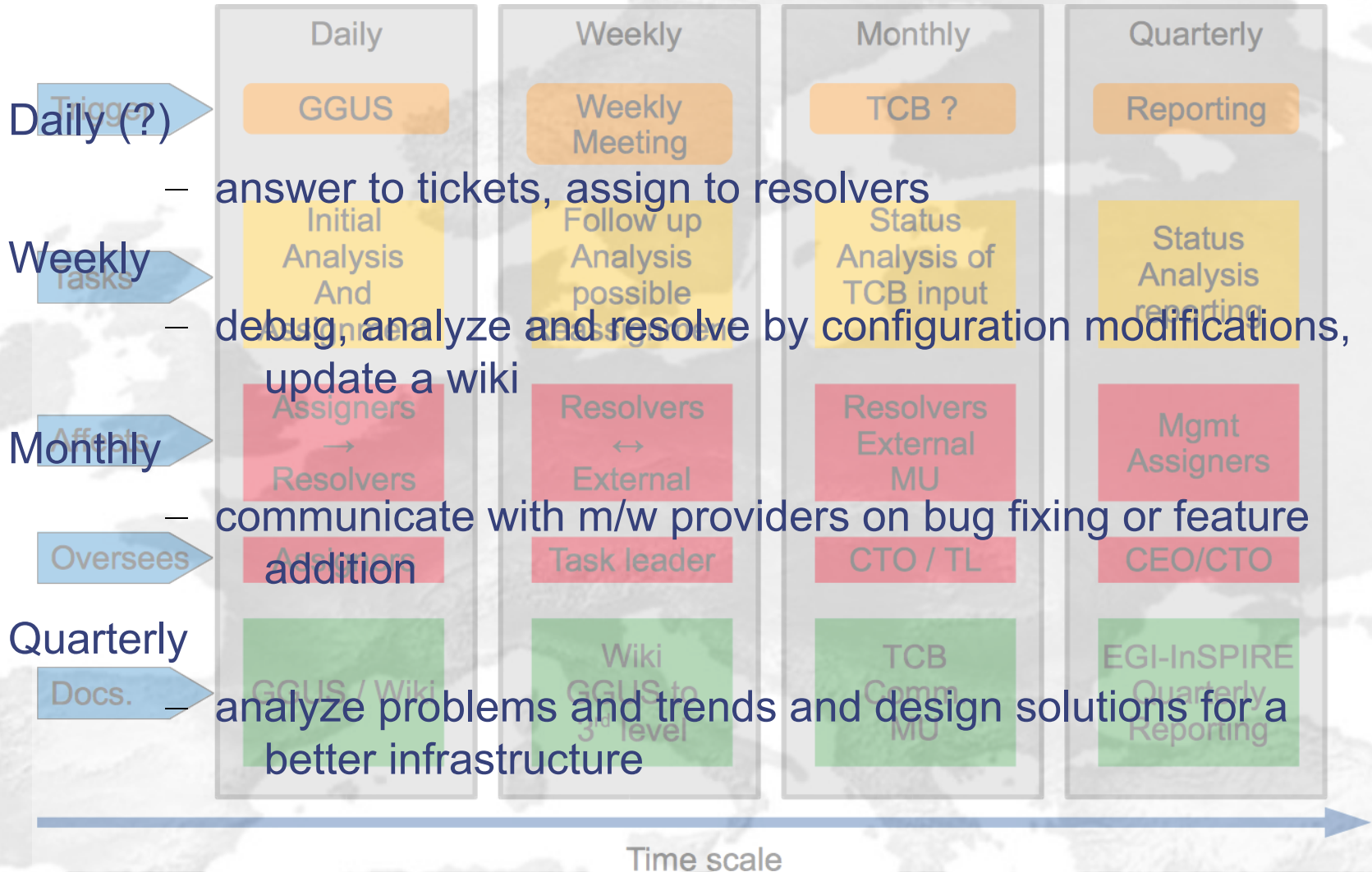
OS
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DMSU Workflow



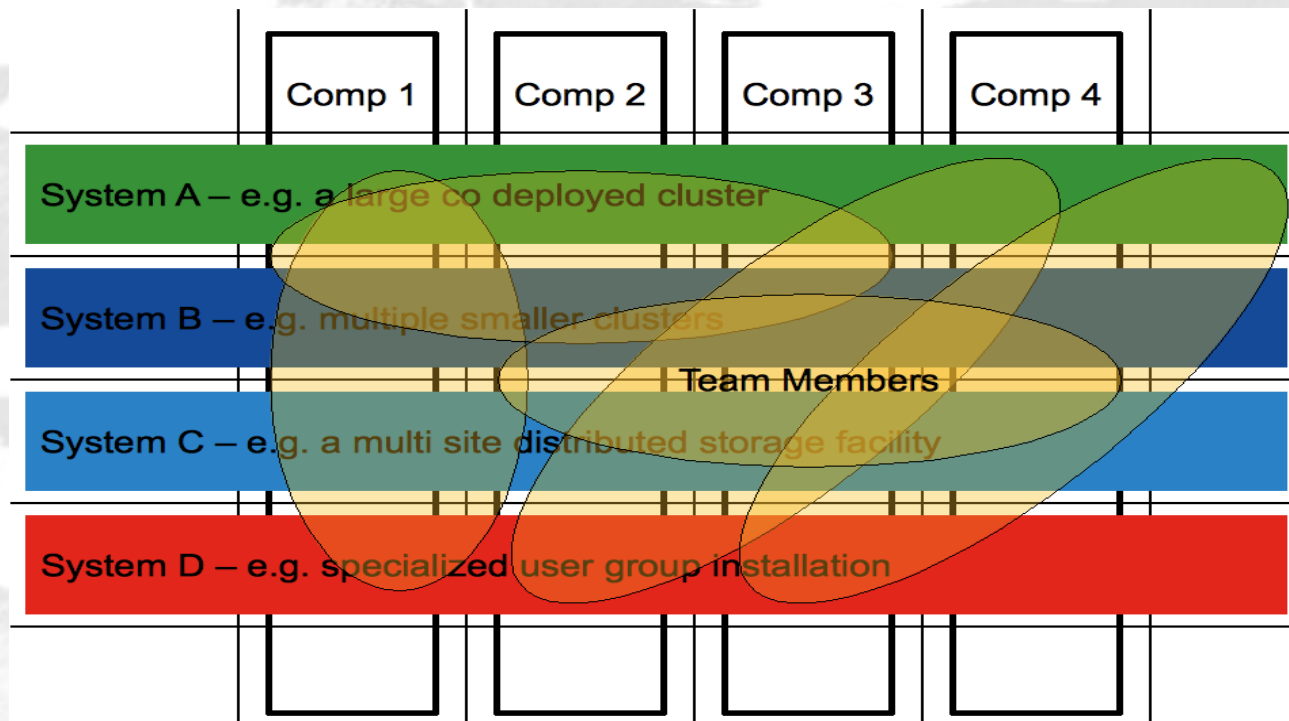
DMSU Workflow



- answer to tickets, assign to resolvers
- debug, analyze and resolve by configuration modifications, update a wiki
- communicate with m/w providers on bug fixing or feature addition
- analyze problems and trends and design solutions for a better infrastructure

Resources

- Team with access to different systems and with knowledge of different components of the infrastructure:



- We need to map this today...

Partners and Coverage

- NDGF:
 - task lead and expertise in ARC and dCache (12PM/yr)
- CESNET:
 - expertise in gLite components (12PM/yr)
- INFN:
 - expertise in gLite components (12PM/yr)
- LRZ:
 - expertise in UNICORE and Globus(?) (6PM/yr)

People

- **NDGF:**

- **Michael Gronager**/Josva Kleist (task lead)
- **Jens Larsson** (problem assignment, analysis, debugging and tracking)
- Gerd Behrmann, Daniel Johansson, Henrik Thostrup (analysis and resolving issues)

- **CESNET:**

- **Ales Krenek**/Zdenek Salvat (problem assignment, analysis, debugging and tracking)
- Zdenek Sustr, Daniel Kouril (analysis and resolving issues)

- **INFN:**

- **Alessandro Paolini** (problem assignment, analysis, debugging and tracking)
- Daniele Cesini, Danilo Dongiovanni, Enrico Fattibene, David Rebatto, Elisabetta Ronchieri, Dal Pra Stefano, Paolo Veronesi, Giuseppe Patania (analysis and resolving issues)

- **LRZ:**

- **Rebecca Brea**/Anton Frank(?) (problem assignment, analysis, debugging and tracking)
- Emmanouil Paisios, Jarno Laitinen (Globus analysis and resolving issues)
- Jason Milad Daivandy, Mathilde Romberg (UNICORE analysis and resolving issues)

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- **C**

This is 24 people for 3.5 FTE !!!

We really need to manage this hierarchically with a prime contact person and partner for dealing with issues related to the partners area of expertise.
- **I**

Internal delegation of actual task analysis, debugging and resolving (tracking) is tolerated and perhaps even beneficial, but the tracking responsibility lies on the prime contact.
- **L**

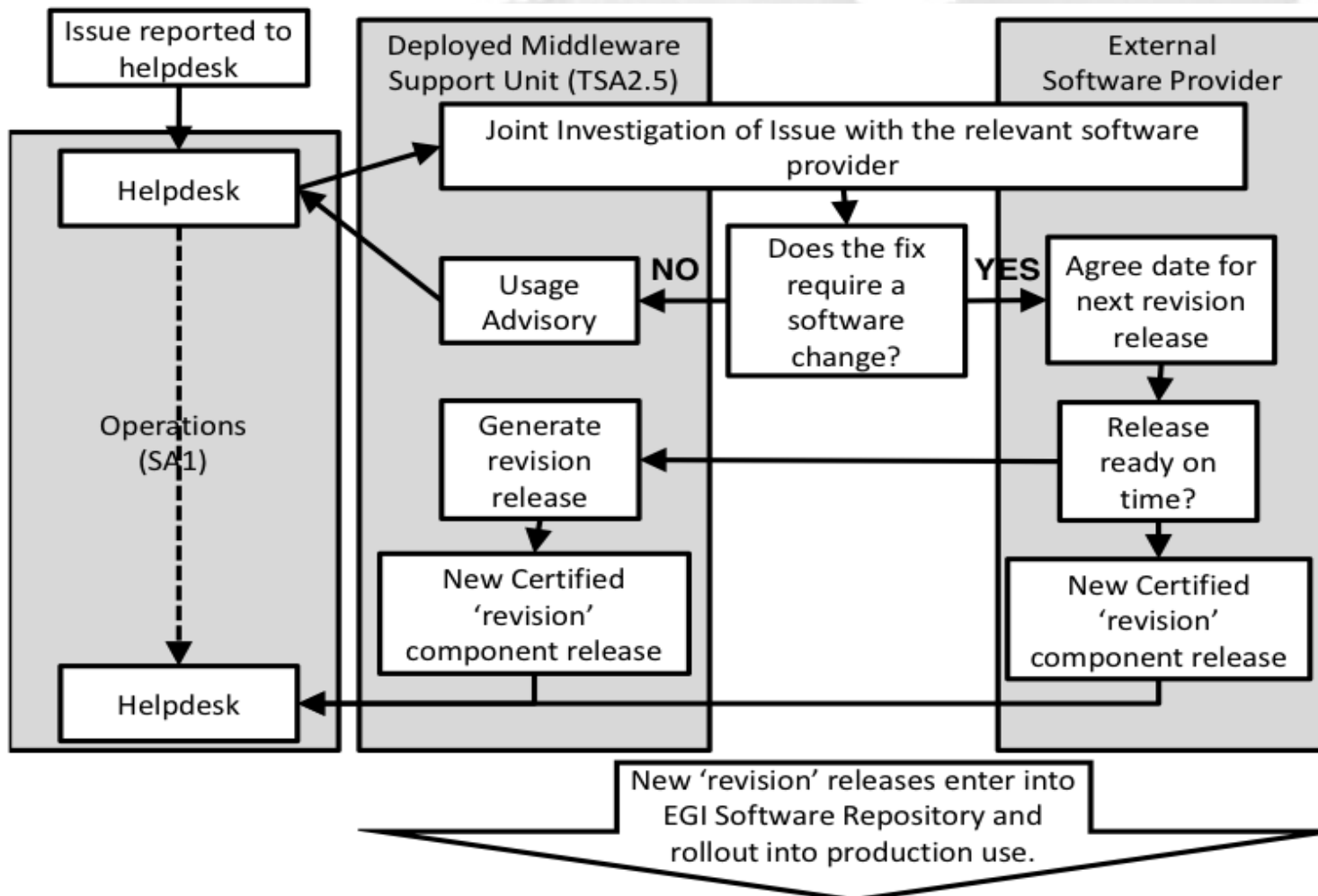
Continuity and commitment is important:
DMSU should not just be a reactive support unit, but also act as a driving and a proactive resource in EGI...

 - Emmanouil Paisios, Jarno Laitinen (Globus analysis and resolving issues)
 - Jason Milad Daivandy, Mathilde Romberg (UNICORE analysis and resolving issues)

Relations to other WPs/Projects

- Helpdesk - 1st line support
 - Assign tasks to DMSU when found to be related to m/w
- TCB – Technical Coordination Board
 - Requests analysis of possible issues to DMSU
- EA – Early Adapter Sites
 - DMSU staff have access to some of these debug and understand issues
- Rest of SA2 – Provisioning the Software Infrastructure
 - DMSU will provide configuration guideline fixes
 - DMSU might provide software patches
- External Software Providers
 - DMSU will design, specify and track features and fixes needed in the m/w

Relations



Outstanding Issues

- Contact to External Software Providers – how (GGUS/more?)
- Link to TCB – how ?
 - Procedure for inclusion of components in UMD ?
 - Ensure proper coverage for new components in DMSU
- Expertise map – today
- EA system map – today
- Define the workflow on the different timescales – today
 - Plan for weekly jabber meeting / phonecon (Monday AM?)
 - Plan for monthly status / meeting with MU / external providers
 - Plan for quarterly reporting

A grayscale topographic map of Europe, showing the continent's terrain with varying shades of gray representing elevation. The map is centered on the continent and serves as the background for the slide.

Discussion...

06/03/10

DMSU Kickoff in Amsterdam

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www.egi.eu

Deployed Middleware Support Unit Link to 1st and 3rd level support

Michael Gronager, PhD

NDGF Director

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Views on workflow: 1->2

- TPM vs DMSU:
 - Today TPM assign many tickets directly to the M/W units
 - One of the roles of the DMSU is to keep track of the external providers and to possibly handle configuration problems and more complex problems
 - This means all tickets goes through the DMSU
 - At least initially
 - TPM assign the ticket to the appropriate DMDU partner based on partner competances – wiki guideline will follow.

Views on workflow: 2->3

- DMSU vs External Providers:
 - The Middleware Providers are no longer a core part of the project
 - We need in house competance on middleware quality, issues, needs
 - Some issues will be fed directly further to the M/W providers and not considered a major problem for the infrastructure
 - Other issues will be followed up at ETA time
 - Some issues might result in recommendations of abandoning a component