



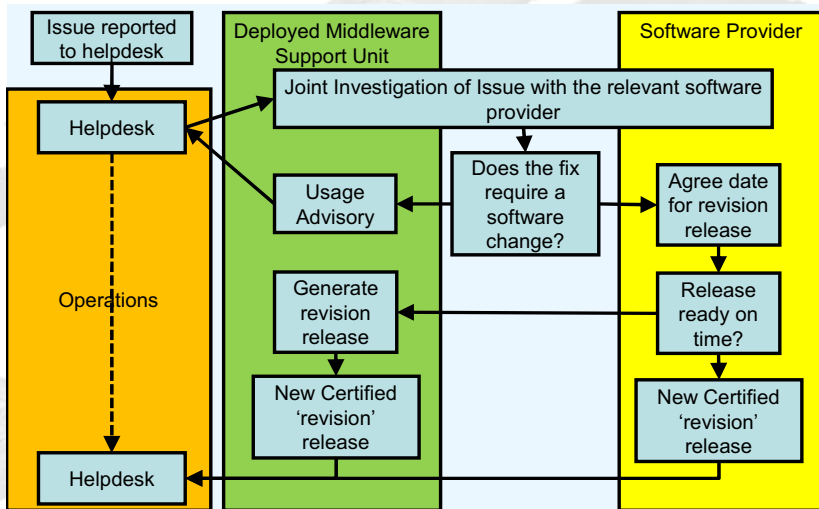
# Middleware User Support in EGI

Aleš Křenek, CESNET

# EGI, and middleware providers

- EGI defines and maintains Unified Middleware Distribution (UMD) – SA2
  - published roadmap with component availability, level and duration of support
  - acceptance of components according to defined criteria
  - negotiation of SLAs
- no effort to develop middleware in EGI
  - collaboration with external middleware providers expected
  - EMI project (being prepared) foreseen to be important one
  - competition possible and welcome
- EGI provides dedicated middleware support – SA3

# Software issue resolution



# Support activities

- 1st line support – EGI SA1 Operations
  - run the helpdesk system (GGUS)
  - resolve “read the manual” problems directly
  - identify middleware issues and escalate to 2nd line support

# Support activities

- 1st line support – EGI SA1 Operations
  - run the helpdesk system (GGUS)
  - resolve “read the manual” problems directly
  - identify middleware issues and escalate to 2nd line support
- 2nd line support – EGI SA3 Support of Deployed Middleware
  - experts with deep middleware knowledge
  - distributed, centrally coordinated team, approx. 8 FTE
  - joint work with middleware providers
  - investigate and debug upto source code analysis
  - suggest workarounds and patches

# Support activities

- 1st line support – EGI SA1 Operations
  - run the helpdesk system (GGUS)
  - resolve “read the manual” problems directly
  - identify middleware issues and escalate to 2nd line support
- 2nd line support – EGI SA3 Support of Deployed Middleware
  - experts with deep middleware knowledge
  - distributed, centrally coordinated team, approx. 8 FTE
  - joint work with middleware providers
  - investigate and debug upto source code analysis
  - suggest workarounds and patches
- 3rd line support – middleware providers (e.g. EMI SA1)
  - developer teams involved
  - work with EGI SA3
  - evaluate complex implications of suggested patches
  - provide final solution

# Software provider SLAs

- agreed on component acceptance for UMD
- individual negotiation
- EGI agrees to
  - communicate issues, environment, etc.
  - involve provider in issue triage
- software provider agrees to
  - provide support contact and/or issue tracker
  - respond to issues in specified time

# If anything goes wrong . . .

. . . and the provider fails to deliver solution in time

- EGI SA3 develops a patch
- the patch is integrated into interim release built by EGI
- sites decide to deploy the patch or not
  - higher risk of side-effects
- still emergency procedure only
  - not enough manpower to maintain patches in EGI



# Beyond bugfixing

- some issues can't be addressed as simple fix
  - e.g. increase throughput 10×
- Middleware Coordination Board (MCB)
  - representatives of users, developers, and operations
  - forum to bring up user requirements
  - map user wishes to realistic specifications
- plans reflected in UMD roadmap
  - may be implemented by new provider

# Summary

- middleware distribution (UMD) maintained by EGI
- external (wrt. EGI) providers of middleware components
  - 3rd line support ensured by SLA
- dedicated middleware support activity in EGI
- emergency procedure to deliver urgent fix within EGI
  - if provider fails to do so (breaking SLA)