

EGI: SA1 Operations

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EGI-InSPIRE Objectives

- Transition to a federated European e-infrastructure built from national resources
- Deliver **production quality services** to all its user communities
- Provide a **scalable user support model** for international research communities within Europe and their worldwide collaborators
- **Interoperation and interoperability** with other e-infrastructures



Steven's

Who does what?

- **Internal National Infrastructure & Activities**
 - Infrastructure that is not visible internationally
 - Activities with no external dependency
- **NGI International Tasks**
 - The ‘service’ interface to your national grid
 - Community defined that EGI will enforce
- **EGI Global Tasks**
 - Run by EGI.eu through community partners
 - Services needed for the whole EGI community

Steven's

Operations

- Providing a Reliable Grid Infrastructure
- Availability of Skilled Support Teams
- Service Deployment Validation
- Providing a secure Infrastructure
- Accounting for resource usage
- Helpdesk Infrastructure
- Infrastructure for Grid Management
- Regionalisation of the operational tools



Steven's

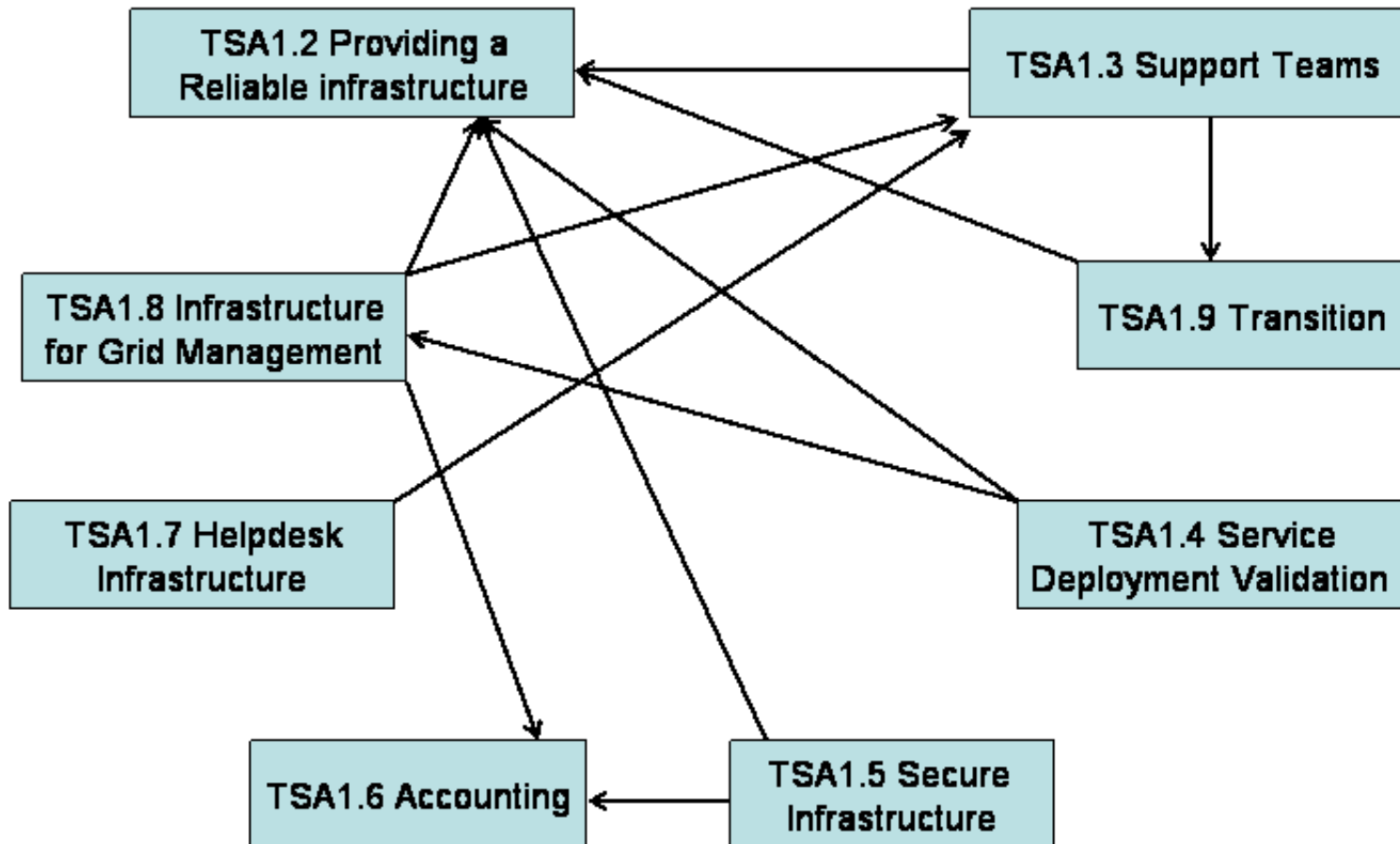
SA1 Operations Activity

- **TSA1.1 Activity Management**
- **TSA1.2 Providing a Reliable Grid Infrastructure**
- **TSA1.3 Availability of Support Teams**
- **TSA1.4 Service Deployment Validation**
- **TSA1.5 Secure Infrastructure**
- **TSA1.6 Accounting**
- **TSA1.7 Helpdesk Infrastructure**
- **TSA1.8 Infrastructure for Grid Management**
- **TSA1.9 Transition**

Background

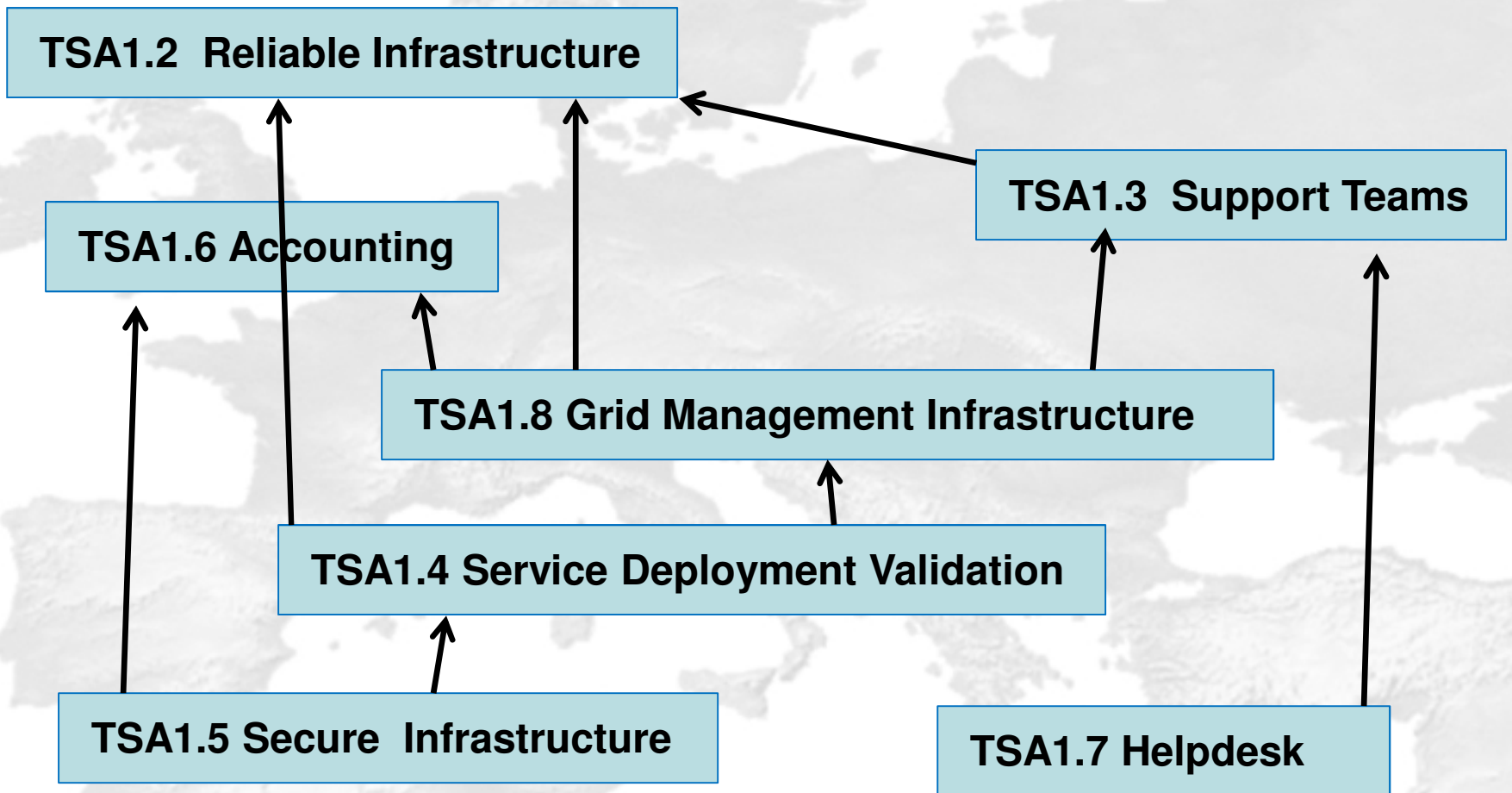
- EGI-DS Blueprint has 17 Global Operations Tasks and 9 International Tasks.
- Too many simply to decompose the operations activity into those tasks.
- Grouped them together into broader meta-tasks associated with second-level objectives for EGI.
- Did **not** achieve a layered set of tasks, but some are lower level and others are built on top of them.

SA1 Task Dependencies



Notation: Task A $\xrightarrow{\text{is requested by}}$ Task B

SA1 Task Dependencies



TSA1.5 Secure Infrastructure

- Address the various security-related risks and maintain the availability of EGI services.
- All aspects of operational security aimed at achieving « A secure infrastructure »
- Security Operations (O-E-16, O-N-9a),
- IGTF and EUGridPMA support and participation (O-E-15),
- Security Vulnerability Handling,
- Security Coordination,
- GOCDB Security contact information (O-E-1, O-N-1)
- Security Monitoring from TSA1.8
- Security Policy (O-E-15),
->NA2

TSA1.7 Helpdesk Infrastructure

- This task will provide a network of helpdesks in NGIs all interacting with a central global instance through agreed interfaces, standard procedures for handling tickets, passing them between helpdesks, escalating them.
- It will also interact with other activities and projects to ensure that requirements are gathered from as wide a constituency as possible, so key to the operation of the infrastructure is the helpdesk.
- Helpdesk (O-E-6, O-N-6),
- Service Requirements Capture (O-E-8)

TSA1.4 Service Deployment Validation

- Ensure that new software releases can be deployed safely and reliably without any degradation of service to the production grid infrastructure.
- Complementary to SA2
- The task includes operational tools, global and site services, and testing of interoperation with other grids infrastructures.
- There will be management of phased middleware roll-out and deployment including testbeds for middleware testing by end-users. Similarly, a test environment will be developed for new versions of the operational tools.
- Coordination of middleware roll-out and deployment (O-E-9, O-N-9b)
 - including testbeds for certification middleware testing by end-users.
- SA1.8 Infrastructure for Grid Management
- Operational tools (O-E-17)
- Interoperability (O-E-11, O-N-9d))

TSA1.8 Infrastructure for Grid Management

- Deployment of the infrastructure for Grid management consisting of a set of services and tools needed by the NGI/EIRO Operations Centres for the running of the Grid software services for Grid monitoring (including SLA and security monitoring), and ongoing Grid management.
- At the core of this infrastructure is a set of monitoring tools to be deployed in all NGIs to monitor their sites.
- Above this will sit higher level monitoring of global services and automated measurement of various service and site reliability metrics.
- Monitoring infrastructure, Nagios, SAM, and other tools (FTM, GridMap, Gridview, WMS monitor) (O-E-3, O-N-3)
- end-to-end network performance monitoring infrastructure and its support, part of (O-E-12)
- GOCDDB knowledge of topology and configuration, downtime schedule (O-E-1, O-N-1)
- CIC Portal and NGI dashboard. (O-E-4, O-N-4)
- Security monitoring infrastructure (currently a development task JRA1)
- SLA portal (currently a development task JRA1)
- TSA1.4 Service Deployment Validation (development of tools is in JRA1)

TSA1.6 Accounting

- Provide a reliable record of the usage of the infrastructure for users, VOs, NGI and EGI management.
- Access to data will be restricted according to agreed policies and NGI/EIRO privacy laws.
- This task will provide: securely and reliably run accounting repositories at NGI and EGI level; a portal to provide on-demand visualisation and/or data download. It requires grid topology information and a secure infrastructure (provided by other tasks)
- Accounting Repositories (O-E-2, O-N-2),
- Accounting Portal (O-E-2)
- GOCDDB topology information (O-E-1, O-N-1)
- TSA1.4 A Secure Infrastructure

TSA1.3 Support Teams

- Bring together the various teams of people handling support issues for users, sites and the network.
- It will not merge them into a common team as the skills required differ but it will make sure the infrastructure is in place and the teams are trained and resourced and all the required documentation is in place.
- TSA1.8 Infrastructure for Grid Management
- Helpdesk Triage Teams (O-E-7) , National User Support Teams (O-N-7),
- COD Support Teams, central and national (cCOD, rCOD) , (O-E-5, O-N-5)
- TSA1.6 Helpdesk Infrastructure
- Resource Allocation (O-E-10, O-N-9c)
- Network Support (O-E-12)

TSA1.2 Providing a Reliable Grid Infrastructure

- This task is to ensure that sites and operational and middleware services are functional, reliable, responsive.
- It will achieve this through subtasks on: production grid services, interoperability, best practices and service level agreements.
- It also has dependencies on other subtasks which manage the human support teams, security, helpdesks, and the monitoring and management infrastructure.
- Grid Oversight , (O-E-5, O-N-5)
- TSA1.3 Support Teams
- TSA1.5 A Secure Infrastructure
- TSA1.7 Helpdesk Infrastructure
- TSA1.8 Infrastructure for Grid Management
- Production Core Grid Services (O-E-14, O-N-8)
- Interoperability (O-E-11, O-N-9d)
- Best Practices (O-E-13, O-N-9d)
- Supervision of SLAs etc (as part of (O-E-3, O-N-3))

TSA1.9 Transition

- The transition from EGEE to EGI will be more complicated for some regions than others. The complex regions with expertise centred in a few countries will need to do a lot of knowledge exchange for the first year.
- This task will support some NGIs to continue with a regional role as they migrate expertise to nearby NGIs as well as perform their own NGI roles.
- Subtasks include the **designing and deployment of operational services** inside new NGIs, the **preparation of ready to deploy solutions** (e.g. a helpdesk integrated with central instance), knowledge sharing between NGIs, the definition of clear guidelines and procedures; the definition of a **roadmap** and the monitoring of the related progress for new NGIs joining operations, the gathering and addressing of **requirements** that come **from the new NGIs** about operational processes.
- SA1.9.1: support to NGIs during the transition process, the designing and deployment of operational services inside new NGIs, and the preparation of ready to deploy solutions (e.g. a helpdesk integrated with central instance), knowledge sharing between NGIs, the definition of clear guidelines and procedures;
- SA1.9.2: the definition of a roadmap and the monitoring of the related progress for new NGIs joining operations, the gathering and addressing of requirements that come from the new NGIs about operational processes

TSA1.1 Activity Management

- COO, Activity Leader and Task Leaders
- EGI Operations Board involving all NGIs
- A wider forum involving NGI management, NGI sites, VOs, SSCs, middleware providers, as applicable
- Working groups, task forces
- Consultation and Advisory bodies

Issues

- Have we covered everything in the Blueprint?
 - A few appear in multiple metatasks possibly leading to management problems
- Existing Global Tasks which were missed from the Blueprint? (e.g. Vulnerability Group)
- New Global Tasks which have emerged since the Blueprint was written (e.g. MPI)
- New Middleware/Tools not yet part of production EGEE stack/toolset (e.g. Intrusion detection)
- Decide who performs Global Tasks (Thursday) then work on transitions and work plans
- Distributing effort for International Tasks to NGIs
- Recognising additional contributions from NGI
- Flexibility to cope with new tasks during the project
- Absorbing new NGIs, EIROs
- Milestones/deliverables
 - Too many BP tasks to manage separate milestones/deliverables for each
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