

Task Force on European Middleware Co-ordination and Collaboration

Terms of Reference

Final Version

September 2008

1. The mandate of the Task Force on European Middleware Co-ordination and Collaboration is renewed under the auspices of the TERENA Technical Programme (<http://www.terena.nl/about/tech/ToR.html>) for another two-year period. The objective of the Task Force is to promote the development and deployment of open and interoperable middleware infrastructures among national and regional research and education networking organisations and academic and research institutions.

The remit of the Task Force has been changed to reflect the outcome of the redefinition of focus of the two middleware-oriented taskforces, known as TF-EMC2 and Task Force Mobility and Network Middleware. Consequently, TF-EMC2 will now focus on identity infrastructure and application-oriented middleware.

The Task Force will continue to be known as **TF-EMC2** (Task Force for European Middleware Co-ordination and Collaboration).

2. The aims of this Task Force will be:

2.1 To provide a forum for exchanging experiences and knowledge.

2.2 To promote development and testing of innovative middleware technologies.

2.3 To promote the use of common standards and procedures for middleware infrastructures.

2.4 To establish pilot services for the European academic community and, specifically, to continue running and enhancing TACAR¹.

2.5 To liaise with other middleware activities at international level, such as those of the Open Grid Forum (OGF) and Internet2.

2.6 To promote the actual use of middleware infrastructures at campuses.

2.7 To co-ordinate and provide support to other TERENA activities and task forces and, more specifically, to continue close cooperation with Task Force Mobility and Network Middleware on common goals concerning federated network resource access.

2.8 To co-ordinate and provide support to other joint initiatives and projects; to provide a forum where GN2 and GN3 middleware-related activities can receive feedback from a wider community.

3. The Task Force will focus its activities predominantly on Europe. It will collaborate with organisations outside the European area or on a broader scope with other relevant initiatives world-wide whenever opportunities of collaboration arise that assist in achieving the aims of the Task Force.

¹ Currently, TACAR is largely used by the Grid community (IGTF), as a neutral repository for their trust anchors. Within GN3, TACAR will be enhanced to also host CAs that will be set up to support GN3 services.

4. The Chair of the Task Force will be Diego Lopez (RedIRIS), who will be responsible for preparing the agenda of each meeting, and for co-ordinating the work of the Task Force. He will also be responsible for ensuring that the agreed deliverables are produced. Additional work item leaders will support the chair in ensuring the smooth operation of the Task Force and in preparing agendas for specific ad-hoc sub-group meetings, whenever they are deemed necessary.

5. TF-EMC2 will liaise with Task Force Mobility and Network Middleware through **ECAM** (European Committee for Academic Middleware).

ECAM will continue its activities as a leadership group dedicated to promote innovative and open middleware technologies and infrastructures. TF-EMC2's representatives in ECAM will be its chair and work item leaders. Additional members may be added to ECAM by unanimous agreement of its current members.

ECAM will meet (approximately) every month, using telephone or videoconference. ECAM face-to-face meetings may be held adjacent to regular meetings of Task Force Mobility and Network Middleware and TF-EMC2. Reports on the activities of ECAM and proposals for actions will be presented at Task Force Mobility and Network Middleware and/or TF-EMC2 meetings.

Once per year a joint meeting of TF-EMC2 and Task Force Mobility and Network Middleware will be organised to exchange information and disseminate results and experiences. Guests from other environments may be invited depending on the items to be discussed.

6. The secretary of the Task Force will be appointed by TERENA. He/she will be responsible for taking minutes at each meeting, and for making logistical arrangements as necessary.

7. The Task Force will operate with a two-years mandate, starting 1 September 2008. A report on the progress of the Task Force and the results achieved will be made at the TERENA Networking Conference 2009. At the end of the two-year period, the mandate of the Task Force may be renewed by the TERENA Technical Committee (TTC). If the mandate is not renewed, the Task Force will be dissolved. The Task Force may also be dissolved if the TTC considers that it is making insufficient progress or that its activities are no longer useful or relevant, or if the Task Force chair resigns and no replacement can be found.

8. The Task Force is committed to assess middleware requirements or solutions proposed by other TERENA Task Forces or activities within the GN2 and GN3 projects or other relevant activities in the academic community.

9. The Task Force will be open to any individual who can offer appropriate expertise, manpower, equipment or services.

10. The Task Force will meet at approximately four-monthly intervals (although this may be via telephone or videoconference). Physical meetings will be held at various locations, taking care to reduce overall costs to participants. Videoconferencing facilities will be made available whenever possible for these meetings. Videoconferencing shall be the preferred method for any other intermediate meetings, when necessary.

11. Reports and other results of the Task Force shall be placed on the public domain, with the exception of information that is known to be commercial in confidence and subject to a Non-Disclosure Agreement.

12. The Task Force will have a mailing list '**tf-emc2@terena.org**' for communication between the participants. The mailing list archive will be publicly available.

List of Work Items and Deliverables

1. Community PKI Initiatives - Licia Florio (TERENA)

The TACAR repository (<https://www.tacar.org/>) and the SCS service (<http://www.terena.org/activities/scs/>) have become key services to the academic and research community, providing new paradigms for the provision and management of Public Key Infrastructures. The work item will concentrate on overseeing the patterns of usage and emerging technologies that might be relevant for these services; on proposing enhancements to make the services evolve and on continuing the promotion of the services through projects and groups they can contribute to (for instance EGEE, International Grid Trust Federation (IGTF), etc). This work item is expected to liaise with the PKI-related activities proposed within GN3. In particular TACAR software and policies are expected to be enhanced to also support requirements coming from GN3 services.

2. Campus Middleware Issues - Torbjörn Wiberg (Umeå University)

The actual take up of middleware technologies at campus level is one of the main challenges for the success of middleware technologies. Activities to promote middleware technologies and to reach the necessary pervasiveness in campuses shall be among the main strategic goals of this Task Force. With respect to this, work will concentrate on:

- a. Collaborating with the organisation of EuroCAMP workshops, maintaining the levels of attendance and satisfaction achieved by the events organised so far;
- b. Improving campuses' awareness of middleware technologies and tools through the liaison with national and international IT practitioners' associations, and more specifically with EUNIS (European UNiversity Information Systems).

3. Directory Schema - Victoriano Giralt (University of Málaga)

The maintenance, enhancement and promotion of the SCHAC schema will be one of the key activities within the Task Force regarding directory schemas. The envisaged areas of activity are mainly related to:

- a. Maintaining and updating the already defined schemas;
- b. Reviewing and promoting the use of the schemas;
- c. Enhancing the individual attributes schema already defined;
- d. Exploring their applicability in more applications, specially the data mobility space defined by the so-called Bologna Process;
- e. Extending the schema to cover other application areas, such as group management and ontology representation.

4. Federation Coordination - Mikael Linden (CSC-FUNET)

The REFEDs² (Research and Education FEDerations) interest group was consolidated during the previous term of the Task Force, reaching out to a practically global coverage (REFEDs workshops are attended by representatives from Europe, the Americas, Asia and Oceania) and initiating formal liaisons with the governmental and commercial sectors through Liberty Alliance. This work item will liaise with Liberty Alliance interest groups operating on similar topics and will possibly reach out to other communities such as government and health sectors, which are becoming more and more interested in federated technologies. REFEDs will host ad-hoc meetings that will be co-located with Task Force meetings, and will provide information services like the REFEDs Wiki.

5. Diagnostic-related Activities - Miroslav Milinović (Srce)

The growing complexity of network services (including network access itself) has led to a situation where the response to a single user request typically involves services of several infrastructural components. This means that it is becoming increasingly difficult both to offer accurate data to users about the status of a given request, and to provide information suitable for assessing service usage and for spotting possible areas and means of enhancement. It is therefore necessary to harmonise diagnostic procedures, to be able to present a coherent view of operational results to both user and administrators. The Task Force will tightly collaborate with the activities in the GN3 project related to user and community services, as well as liaise with the Internet2 EDDY (End-to-end Diagnostic Discovery)³ initiative.

6. Collaboration with the Grid Community - Milan Sova (CESNET)

It is important to ensure that the Task Force will not duplicate work of others and that the results produced are compliant with the standards followed by the scientific community, and more specifically with Grid infrastructures. The Task Force will continue its activity in filling the possible gaps by bringing together the NREN and Grid communities.

Periodic reports about the AA developments in the Grid community will be presented during the Task Force meetings. It is envisaged that people active in Grid middleware initiatives will continue attending the Task Force meetings.

7. Reputation Systems – Jaime Pérez (RedIRIS)

Trust is one of the key issues when dealing with distributed and federated services and, obviously, the cornerstone of identity management. This work item intends to address the propagation of trust in highly distributed environments, such as wiki, social networks and so on. The level of trust that can be put in a system is defined through community assessments. The systems to be assessed can rank from already well-established systems, like anti-spam tools, to new environments like P2P or social networks. The main goal of this work item is to establish a service-oriented pilot to provide reputation ratings for various systems.

8. Identity Services beyond Web Single Sign-On – Josh Howlett (JANET(UK))

The European academic community has found many use cases for federated digital identity in applications other than those accessible through a web browser. Going beyond the browser limits constitutes a fundamental requirement to fulfill the promise of Identity Management in simplifying service administrator's tasks and enhancing user's

² REFEDs website: <http://www.terena.org/activities/refeds/>

³ EDDY is an infrastructure that allows gathering information about the operation of disparate components in the computing infrastructure for analysis, research, and audit. See also: <http://www.cmu.edu/eddy>

experience.

This work item will constitute a follow-up of the “Beyond WebSSO” BoF (<http://tnc2008.terena.org/schedule/meetings.php>) that took place at TNC2008 in Bruges and will be strongly connected to identity-related activities in GN2 and GN3.

New deliverables and work items may be added as the Task Force sees fit.