REFEDS Year End Report 2015

Licia Florio, Nicole Harris

Abstract:

This report provides an overview of the work carried out by REFEDS during 2015 as well as the costs incurred in the same period. The workplan for 2015, as approved by the REFEDS SC and supported by the sponsors can be found online at:
https://refeds.org/work/

This report is mainly aimed at the REFEDS Sponsors, to highlight the achievements in relation to the expenditures and the yearly sponsorships.

Table of Contents

1. Executive Summary

This document provides an update on the progress made by REFEDS in the various workpackages that were part of the 2015 workplan: https://wiki.refeds.org/display/WOR/2015+REFEDS+Workplan.

This chapter offers a high-level overview of the achievements in 2015, which also the 10th year of REFEDS. REFEDS met all of its core objectives in 2015 and produced a high volume of outputs and results against the available budget.

The new sponsorship model launched at the beginning of 2015 has been well received and the number of sponsors increased in 2015 (11 in 2015 versus 9 in 2014). The expectation is to have at least two new sponsors in 2016.

A new REFEDS website was launched in 2015, to offer a more stable and easy to manage platform. The website, the wiki, the mailing lists (also migrated to Sympa in November 2015) and the blog constitute the REFEDS online presence.
Besides the two yearly meetings, REFEDS held two BoFs (APAN, EWTI) and the REFEDS Coordinators made a number of presentations at events throughout the year.

To support promotion and management, REFEDS started a new activity - the REFEDS annual survey - to gain a better overview of the current state and maturity federations: https://wiki.refeds.org/display/OUT/2015+REFEDS+Survey .

The work on entity category has been very valuable to the community. REFEDS continue to support this approach and plans for 2016 are to offer more supporting documentation to further increase adoption. This has included two campaigns to help promote entity categories to IdPs and SPs (https://wiki.refeds.org/display/OUT/Promotional+Materials) and a set of guidance on how to justify the use of entity categories according to the EU regulations on data protection (https://wiki.refeds.org/display/ENT/Guidance+on+justification+for+attribute+release). A consultation on a further entity category was carried out (Academia) but consensus was not reached. This will be revisited in 2016.

The new workpackage on Groups and Virtual Organisations, outsourced to Heather Flanagan, produced two main outputs:

- a **VO assessment document** - a template for those interested in starting a VO (https://wiki.refeds.org/display/GROUP/VO+Assessment+Template).
- a **value proposition for federations** - to highlight the benefits of federations as well as the reasons as to why should federated access be prioritised and

what needs to be done to create a federation.
(https://wiki.refeds.org/display/OUT/The+Value+Proposition+for+Identity+Federations).

REFEDS has funded development on two tools:

MET (https://met.refeds.org) **–** The Metadata Explorer Tool is designed to give federations a quick overview of the metadata in existing federations. Thanks to the work done by GARR (Andrea Biancini) the tool offers a real value for federations now.

- **REEP-PEER (**https://reep.refeds.org/) **-** a tool that allows for easy and simple registration of entity metadata in a central source. The workflow and the interface were improved after a trial period. REFEDS will continue to support this tool, which can be used as a supporting tool for other projects where an exchange of metadata is needed, but using eduGAIN may not be necessary. The new software is expected to be in production by the end of 2015.

The approach to use the RFC process for some specific REFEDS documents will be continued as it has proved to be very valuable. This work has been outsourced to Ian Young. Two main documents are being pushed via the RFC process at the moment:

- Metadata Query Protocol:
  https://tools.ietf.org/html/draft-young-md-query-05
- Entity Category SAML Attribute Types:
- https://tools.ietf.org/html/draft-young-entity-category-03.

Finally, REFEDS keeps supporting SCHAC (the latest update was done in June 2015; the schema is now stable) and a number of working groups (https://wiki.refeds.org/display/GROUPS/Working-Groups+Home).

The summary of the expenditures is shown in the table below:

Overview Budget Period 1st Jan 2015-31st Dec 2015	EUR	Comments
Left over budget from 2014	38.000	
Contributions from Sponsors in 2015	81.000	
TOT Budget available	**119.000**	As per Jan 2015
Budget required for workplan 2015	**102.000**	
Total Costs for REFEDS 2015	**106.000**	
Budget Dec 2015	~13.000	As per 31st Dec 2015

2. Sponsorship

The sponsorship for 2015 were handled according to a new sponsorship model, introduced at the beginning of 2015. The new sponsorship model includes sponsorship levels (platinum, gold, silver and bronze) with an associated amount for each of the levels and makes the benefits of each level clearer to the sponsoring organisations. The new model was very received by the sponsors and resulted with more organisations sponsoring REFEDS.

The list of current sponsors is shown in the table below:

Sponsorship levels	Organisations
PLATINUM	ISOC, NORDUNET, GARR*, InCommon
GOLD	Renater, SURFnet, SWITCH
SILVER	RedIRIS, LEGO, Canarie
BRONZE	Australian Access Federation

* Part of GARR sponsorship was used to advance the development of the Metadata Explorer Tool. This work was carried by GARR staff.

In total these organisations contributed **81000 EUR** in sponsorship; see chap 3 for a detailed overview of the expenditures. This is slightly less than in 2014 due to a specific grant for a particular work item being received in 2014, but the overall number of sponsors has increased; this was a core requirement of the change in sponsor approach.

3. Activities

REFEDS work is organised in sets of work items via an annual workplan. Each year REFEDS participants are solicited to provide inputs for possible work areas. A short list is created with the expected budget associated with each work area. The REFEDS Steering Committee is then asked to approve the list and to define initial priorities (accordingly with specific wishes from the sponsors if any) should the budget not be sufficient to fund all proposals. Once the plan is ready, the REFEDS sponsors will be asked to provide any feedback in a dedicated meeting.

Each work package covers area of work that are in line with REFEDS goals of:

- Representing the needs for the research and education community in the wider space of access and identity management;
- Addressing inter-federation issues and trying to offer some solutions for these;
- Engaging more actively with other communities interested in identity

federations;

- Enhancing international collaborations among participants by sharing best practices and possibly contributing to the creation and/or adoption of new standards.

REFEDS workplans, once approved, are published on the REFEDS website: https://refeds.org/our-work.

Further information on the preparatory work as well as the day-to-day progresses are on the REFEDS wiki: https://wiki.refeds.org/display/WOR/2016+Work+Plan+Preparation .

REF15-1: REFEDS Coordination

Core Aim: To progress REFEDS position as an important player within the access and identity management space internationally.

A new website, built using WordPress, was launched in early 2015. Beside the improved look and feel, the new website is easier to maintain, consult and update. The REFEDS Coordinators continue to support the REFEDS website (refeds.org), wiki (wiki.refeds.org), blog (blog.refeds.org) and various mailing lists. Part of the coordination work involves also support for working groups and for REFEDS consultation process (more about this below).

a) REFEDS Meetings and Presentations

In 2015, REFEDS coordinated the following meetings:

- REFEDS Full Meeting in conjunction with TNC2015: (https://refeds.org/meetings/29th-meeting-june-2015).
- REFEDS Full Meeting on Sunday 3rd October 2015 in Cleveland, USA in conjunction with Internet2 Technology Exchange (https://refeds.org/meetings/30th-meeting-oct-2015) .
- REFEDS BOF at APAN in Japan in Febrary 2015: (https://refeds.org/meetings/28th-meeting-march-2015).
- REFEDS BOF in December 2015 in Vienna, Austria in conjunction with the European Workshop on Trust and Identity (https://refeds.org/meetings/nov14/).

In addition, the REFEDS coordinators attended and presented at the following events (not all them sponsored by REFEDS):

- Nicole Harris: UK federation Townhall Meeting, 23rd June 2015: https://wiki.geant.org/download/attachments/46563946/ukfed-meeting-

20150623.pptx?version=1&modificationDate=1435437583317&api=v2.
- Nicole Harris: SIG ISM Workshop, 13th May 2015:
  http://www.terena.org/activities/ism/ws2/slides/refeds-ismsig-may2015.pdf.
- Nicole Harris: AAI@Edu.hr online meeting, 25th November 2015 (not online).

b) REFEDS Survey

In 2015, REFEDS launched a federation survey; the data is gathered using the GEANT Compendium framework. The results of this survey are then fed back to the GEANT compendium. In 2015 26 (out of 56) federations responded to the survey. The exercise allowed to get a better understanding on the type of services offered, the budget used by federations and the operational models.
The results of the survey are online at:
https://wiki.refeds.org/display/OUT/2015+REFEDS+Survey .

A new survey will be launched in 2016.

c) External Contracts

REFEDS put in place two contracts with external parties to support its work in 2015:

- A development contract with Emergya to revamp PEER interface. The work was delivered in October 2015.
- A contract with Ian Young to support the further development of the Metadata Query Protocol RFC and pilot work and The Entity Category SAML Entity Metadata Attribute Types RFC.
- Two contracts with Heather Flanagan to work on groups and VOs (see REF-15-3) and to finalise the work on SCHAC.

These work items are described in more detail in the relevant sections below.

The rest of the document reports in more details the work carried out in each of the activities in the 2015 workplan.

REF15-2: Federation Operation Best Practices

Core Aim: To complete work on metadata registration, publication and federation key management documentation and to feed in for dissemination and use within the GÉANT project (GN4) harmonisation task.

This workpackage contains different items:

a) Documentation for Federations

This work contains a number of documents and templates to support federation operators.

- Metadata Registration Practice Statement (MRPS)
  The MPRS offers a template for federation to build a series of statements to describe their Federation Operator Practice. The document followed a consultation in 2015 and was then handed over to eduGAIN. Federations are invited to use the template which is online at:
  https://wiki.refeds.org/download/attachments/7143427/MRPS-templatev0.3.pdf.
  Plans are to include any feedback coming from this using it and to produce an update version.

A space on the REFEDS wiki is being created to better promote the Metadata Registration Practice Statement and the previously developed Federation Policy Template.

b) Report on uptake of Entity Category and consultation for new entity categories.

REFEDS has been monitoring and encouraging the take-up of entity categories over the latter part of 2015. Figures show that there is an increased uptake of R&S entity category. The focus in 2015 has been to get some support for categories in at the federation level. In 2016, REFEDS will focus on providing more materials to aid adoption by IdPs and SPs.

The following chart shows the take-up of the Research and Scholarship entity category in eduGAIN. Progress has been slow but the number of entities supporting R&S is growing.
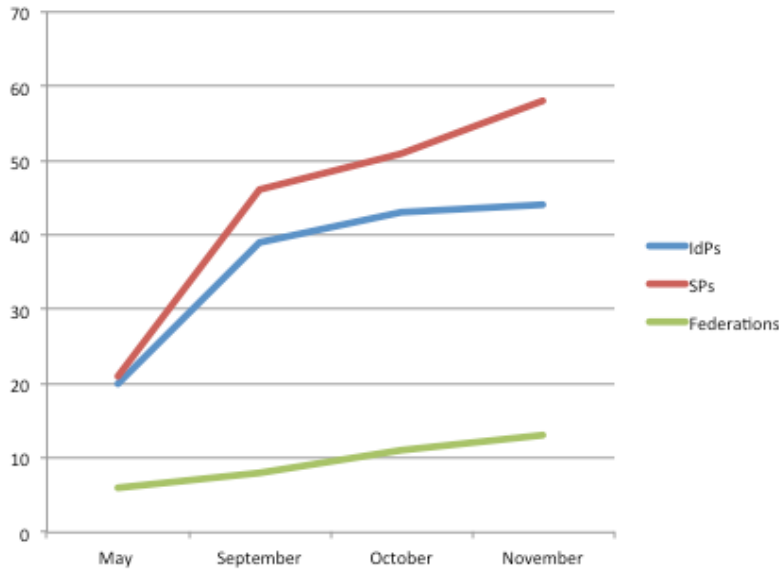
Figure 1: adoption of R&S Entity Category

REFEDS has also tracked the adoption of the Code of Conduct entity category, which shows a similar adoption rate.
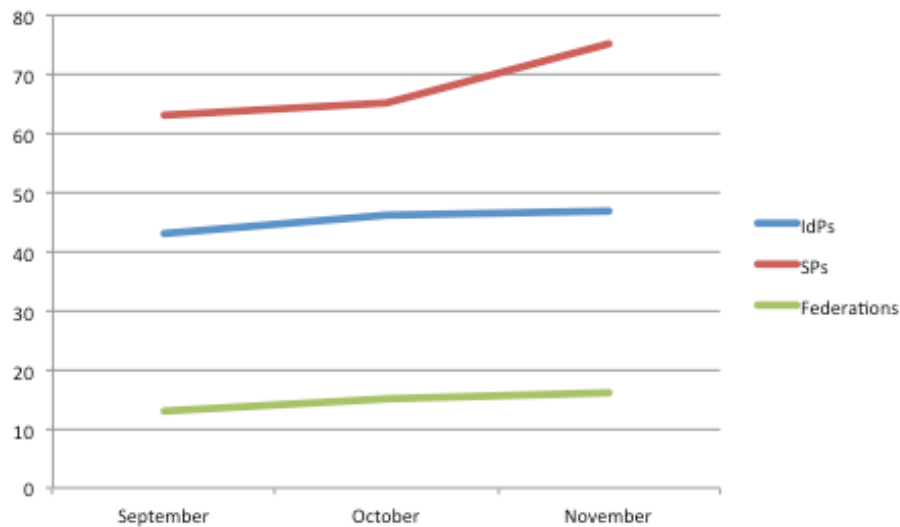

Figure 2: adoption of CoCo Entity Category

In 2015 a new category was proposed, **Academia**, to identify individuals who fit some sort of description of academic and / or Identity Providers that are from academia. There is no one-size fits all solution to the needs of the community. The outcome of the consultation indicates that Academia should move from an Entity Category (which was the initial proposal) to a trust framework with the aim to separate academic institutions from other type of institutions. However, a number of open questions (such as which institutions can use the trust tag, better definition of the use-cases, etc) need to be addressed.

REFEDS has created two campaigns to support the adoption of best practice by IdPs and SPs – one focusing on using federations effectively, and a "new years resolutions" that will be promoted to start the 2016 year. The materials are online at: https://wiki.refeds.org/display/OUT/Promotional+Materials. Federations are encouraged to contact REFEDS if they would like to have bespoke versions of the materials made to suit local requirements.

   c) Sirtfi (https://wiki.refeds.org/display/GROUPS/SIRTFI)

The SIRTFI group is looking at processes for expressing security incident handling requirements as an assurance profile for federations and other requirements needed to effectively deploy and enhance incident response processes for FIM. Part of this work is funded via the AARC project, however the working group page is hosted on the REFEDS wiki. REFEDS handled the Sirtfi consultation process to approve the version 1.0 of the Sirtfi framework.

REF15-3: Groups and VOs

Core Aim: To provide supporting material for organisations carrying out a needs assessment for VO / group management usage.

This workpackage was outsourced to Heather Flanagan. Heather has finished the work on the **VO assessment**; there is now a template online for those interested in starting a VO:https://wiki.refeds.org/display/GROUP/VO+Assessment+Template. Heather also produced a **value proposition for federations**: https://wiki.refeds.org/display/OUT/The+Value+Proposition+for+Identity+Federations. This document aims to highlight the benefits of federations as well as the reasons as to why should federated access be prioritised and what needs to be done to create a federation.

REF15-4 REFEDS Service and Monitoring

Core Aim: To provide support for existing REFEDS pilots as well as for new developments.

This workpackage focuses on tools being designed to support the flow and use of metadata within and across federations. Three main areas have been developed:

   a) *PEER-REEP (https://reep.refeds.org)*
   PEER is a tool that allows for easy and simple registration of entity metadata in a central source (https://github.com/Yaco-Sistemas/peer/). REEP (https://reep.refeds.org/) is a service instance of PEER that aims of offer a central repository for metadata.

Following a trial period, users reported the need for a better interface and more agile workflow. A new contract was put in place in 2015 to address these requirements. The new software was released in Nov 2015; the migration in production is planned in Dec 2015.

b) MET (met.refeds.org)

The Metadata Explorer Tool is designed to give federations a quick overview of the metadata in existing federations. In 2015 the tool was moved to GARR, that is currently operating it. GARR also made a number of software enhancement to improve the performances. Thanks to these enhancements MET is now a very useful tool.

c) FebLab (http://fed-lab.org/)

This work was started in the GN3 project and it has now evolved into a bigger project with different funding: REFEDS, GN4 and Vietsch FoundationFoundation.

The aims of FedLab is to a test suite to help check the interoperability of products for federated identity management. For more information, please refer to:
http://www.geant.org/News_and_Events/Pages/REFEDS-Vietsch-Foundation-and-GEANT-to-jointly-fund-FedLab.aspx

REF15-5 Standards and Harmonisation

Core Aim: To provide support for the development of standards and specifications under the REFEDS banner.

REFEDS is taking more of a significant role as a body that works on standards and specifications for the community. It has been agreed that where appropriate, this work should be developed as much as possible via the RFC mechanisms.
Most of the work in this workpackage has been contracted to Ian Young.

Ian Young has been responsible for shepherding the Metadata Query Protocol through the REFEDS consultation process and through to submission as an RFC. A new RFC draft was submitted in April 2015:
 https://tools.ietf.org/html/draft-young-md-query-05 . Ian has managed the process through several initial Internet Draft submissions. It has proved that using the RFC process offers value to the REFEDS Community.

REFEDS has advanced its work on Entity Categories as well. The Entity Category SAML Attribute Types specification has also been submitted to the RFC process by Ian Young, moving from the Mace Dir initial development. The latest version, submitted

to the RFC in Nov 2015 is online at:
https://tools.ietf.org/html/draft-young-entity-category-03 .

SCHAC has been managed by REFEDS since 2014. The lasts updates to the schema were done in June 2015. The latest version of the schema is online at:
https://wiki.refeds.org/display/STAN/SCHAC .
A proposal was also presented on how to bring eduPerson and SCHAC governance closer and some small areas of work in this direction have been proposed for the 2016 workplan.

REF15-5: Specialist Working Groups

Core Aim: Offer the basic support for ad-hoc working groups to address specific work items.

REFEDS allows for Specialist Working Groups to be set up under its banner. These Working Groups do not receive funding but are designed to be talking shops for specific issues or operational areas. Working Groups may propose work items for funding under the core REFEDS workplan at certain points. REFEDS supports the group by providing wiki space and mailing lists, but otherwise the groups are designed to be self-sustaining through community interest. Non-active working groups are frozen.

REFEDS currently supports the following Working Groups:

- FOG - Federation Operators Group (admission to the group has to endorsed by two group members): https://wiki.refeds.org/display/GROUPS/FOG.
- OIDC()re - OpenID Connect for Research and Education: https://wiki.refeds.org/display/GROUPS/OIDC%28re%29.
- ORCID – Joint issues for ORCID and Identity Federations (new): https://wiki.refeds.org/display/GROUPS/ORCID.
- SIRTFI -Security Incident Response Trust Framework for Federated Identity (open): https://wiki.refeds.org/display/GROUPS/SIRTFI.

The MARI WG - managing attribute release in interfederation use-cases has been closed due to lack of progresses: https://wiki.refeds.org/display/GROUPS/MARI.

4. Finances

A summary of the costs incurred by REFEDS in the period reported (January 2014 – December 2014) is given below.

Overview Budget Period 1st Jan 2015-31st Dec 2015	EUR	Comments
Left over budget from 2014	38.000	
Contributions from Sponsors in 2015	81.000	
TOT Budget available	**119.000**	As per Jan 2015
Budget required for workplan 2015	**102.000**	
Total Costs for REFEDS 2015	**104.000**	
Budget Dec 2015	~15.000	As per 31st Dec 2015

Table 1: Budget Summary

Breakdown of Cost 2015	EUR	Comments
Contracts: Ian Young Heather Flanagan Emergya	6.000 19.000 15.900	Work on the RFC specs Final work on SCHAC + VO work Work on PEER code
Travel Costs (GEANT)	8.500	Nicole Harris and Licia Florio
Personal Costs	±52.000	Nicole Harris and Licia Florio manpower
Other costs	±3.100	TNC and Vienna meetings, domain registration, courier for contracts
TOTAL Costs	~104.000	

Table 2: Breakdown of the costs