RandS and Interfederation

Research and Scholarship as a Catalyst for Interfederation

It's been almost two and a half years since the InCommon Research & Scholarship (R&S) Category opened its doors. Today there are 23 R&S SPs, a small but important category of InCommon services. Perhaps more importantly, 90 InCommon IdPs have openly declared their support for R&S. Last month alone, 10 IdPs threw their hat into the ring, the most in any single month thus far. Could it be that R&S has finally reached critical mass?

These and other events make me optimistic that the answer to the previous question might be yes:

1. The Research & Scholarship Entity Category was adopted by REFEDS [Feb 2014]
2. InCommon officially joined the international eduGAIN consortium [Apr 2014]

Together these events place the Research & Scholarship Entity Category at the very center of the international stage.

REFEDS R&S

In February 2014, exactly two years after the first InCommon Service Provider was accepted into the R&S program, the REFEDS steering committee approved and published its own REFEDS Research & Scholarship Entity Category specification. Modeled closely after the InCommon R&S Category definition, the REFEDS version enables R&S interoperability across more than 30 federations worldwide. At least a handful of these federations are implementing REFEDS R&S as we speak. More are expected to follow in the months ahead.

Here in the US, the migration to REFEDS R&S has already begun. To ensure compatibility with other federations, InCommon will ask R&S service owners to re-apply for R&S while focusing on the differences between InCommon R&S and REFEDS R&S (which fortunately are few). Once all the R&S SPs have migrated to REFEDS R&S, the R&S IdPs will be asked to make a small, one-time change to their attribute release policy. At that point the migration to the international REFEDS R&S standard will be complete.

eduGAIN

The international eduGAIN service is the mechanism by which interfederation takes place. Federations worldwide export entity metadata to eduGAIN while those same federations turn around and import metadata from eduGAIN, adding the imported metadata to the aggregates distributed to their respective members.

InCommon officially joined eduGAIN in April 2014. We don't yet export metadata to eduGAIN, but when we do, expect the R&S SPs to be among the first to go. Indeed, the InCommon R&S entities (both SPs and IdPs) are the best candidates for interfederation since they are already committed to usability, interoperability, security, and privacy.

The Critical Importance of R&S

Interfederation tends to magnify the strengths and weaknesses of the federated model, in the following sense. Suppose you're an SP that wants to reach the widest possible audience, that is, the entire R&E community worldwide. Three things have to happen: 1) the SP has to consume all the IdP metadata in the world; 2) likewise all the IdPs in the world need to consume the SP's metadata; and 3) all IdPs have to release the necessary attributes to the SP. Although (1) and (2) seem daunting, that is precisely the function of eduGAIN, and so there is hope.

No amount of metadata sharing will help realize (3), however. Attribute release is **the number one problem** in the InCommon Federation. It's why we invented R&S in the first place. At the interfederation level, attribute release is further complicated by international privacy laws. It is unlikely attributes will flow between countries without some agreements eventually being in place. This problem is being addressed on multiple fronts, including R&S. Although it's barely more than an experiment at this point, the REFEDS Research & Scholarship Entity Category is the best chance we have of making interfederation a worthwhile exercise in the short term.