

# eduGAIN

An Interfederation Service of GÉANT



# SWITCH

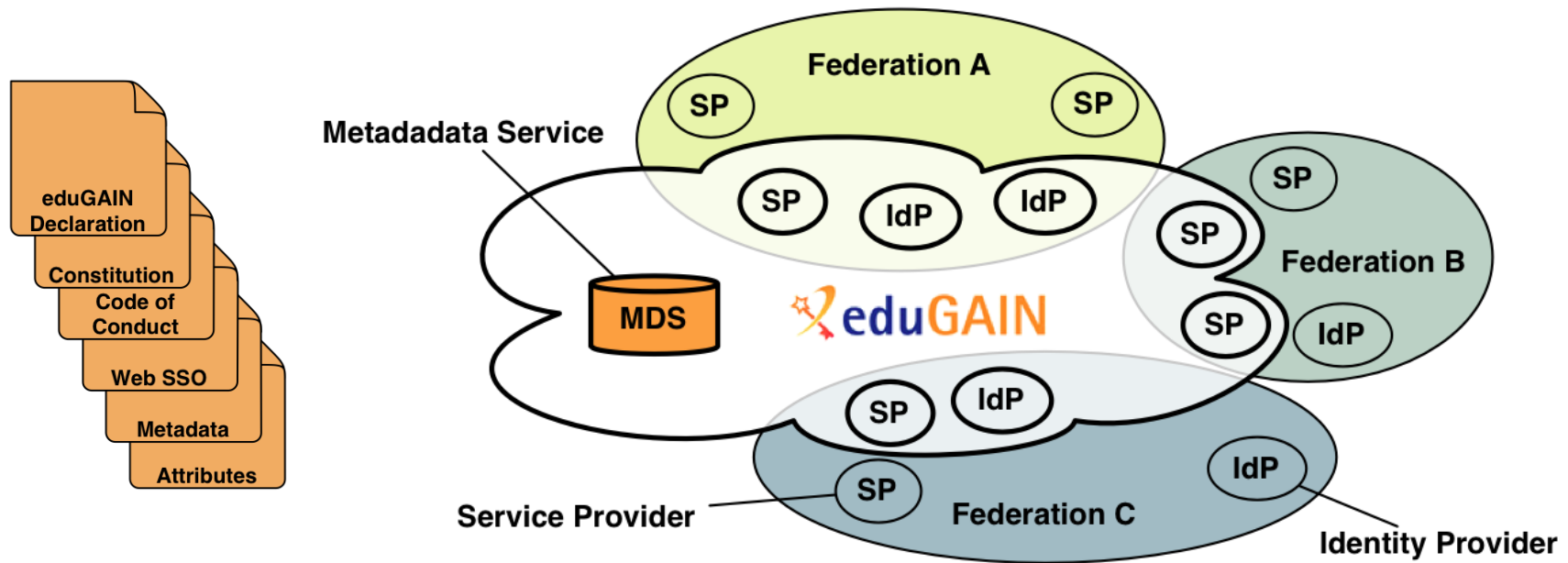
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Interfederation Crash Course  
Bern, 1. March 2013

# Overview

- Interfederation with eduGAIN
  - The Structure, the Numbers, the Scope
  - How it works
  - The Rules
  - Showcases

# The Structure



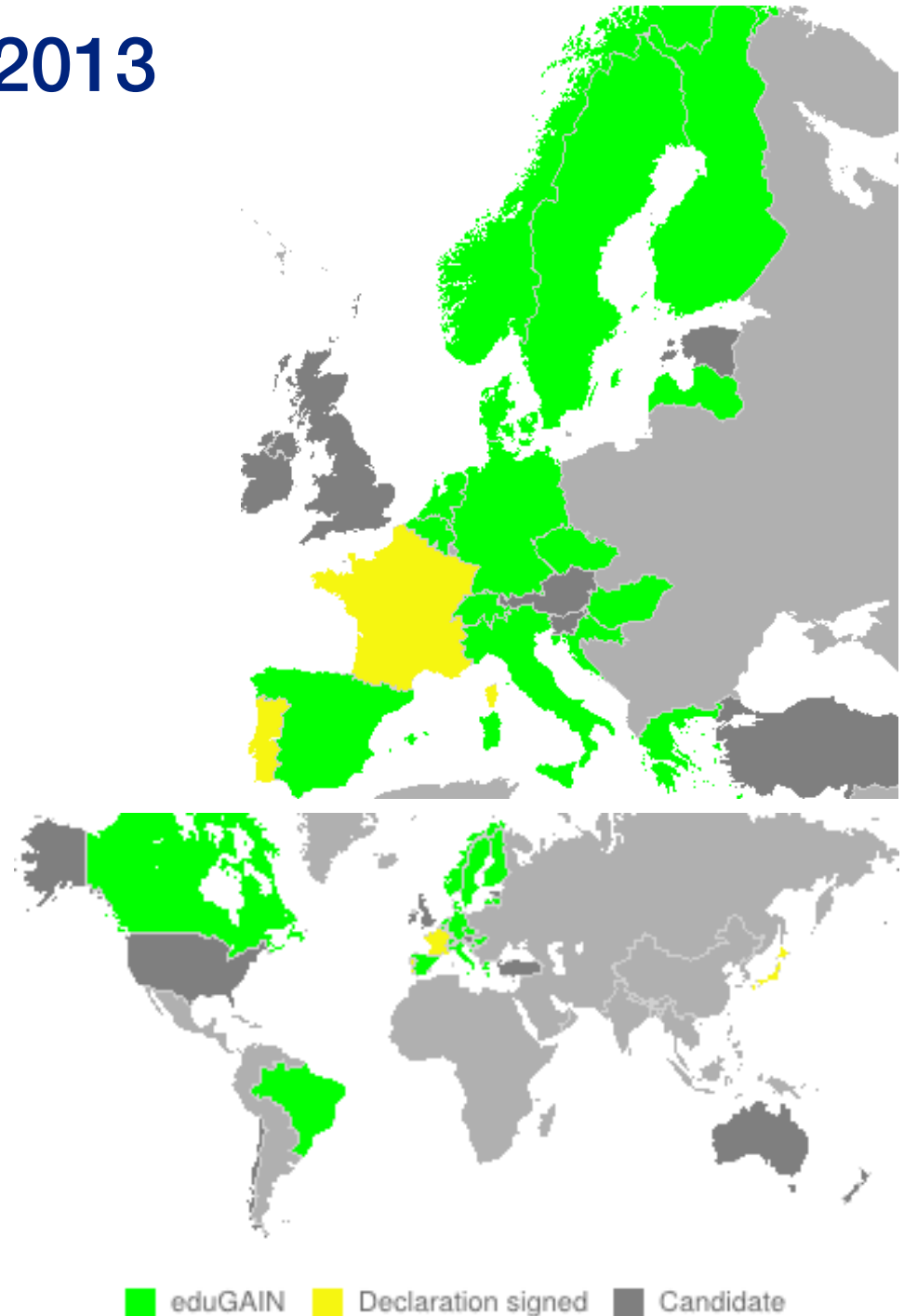
- eduGAIN provides policy framework and standards to build trust
- SPs and IdPs of participating federations should opt-in for eduGAIN
- MDS fetches, aggregates and republishes metadata

# The numbers February 2013

- 17 Federations
  - 3 more joining, 10 candidates
- 84 IdPs, 1 from SWITCHaai
- 38 SPs, 4 from SWITCHaai

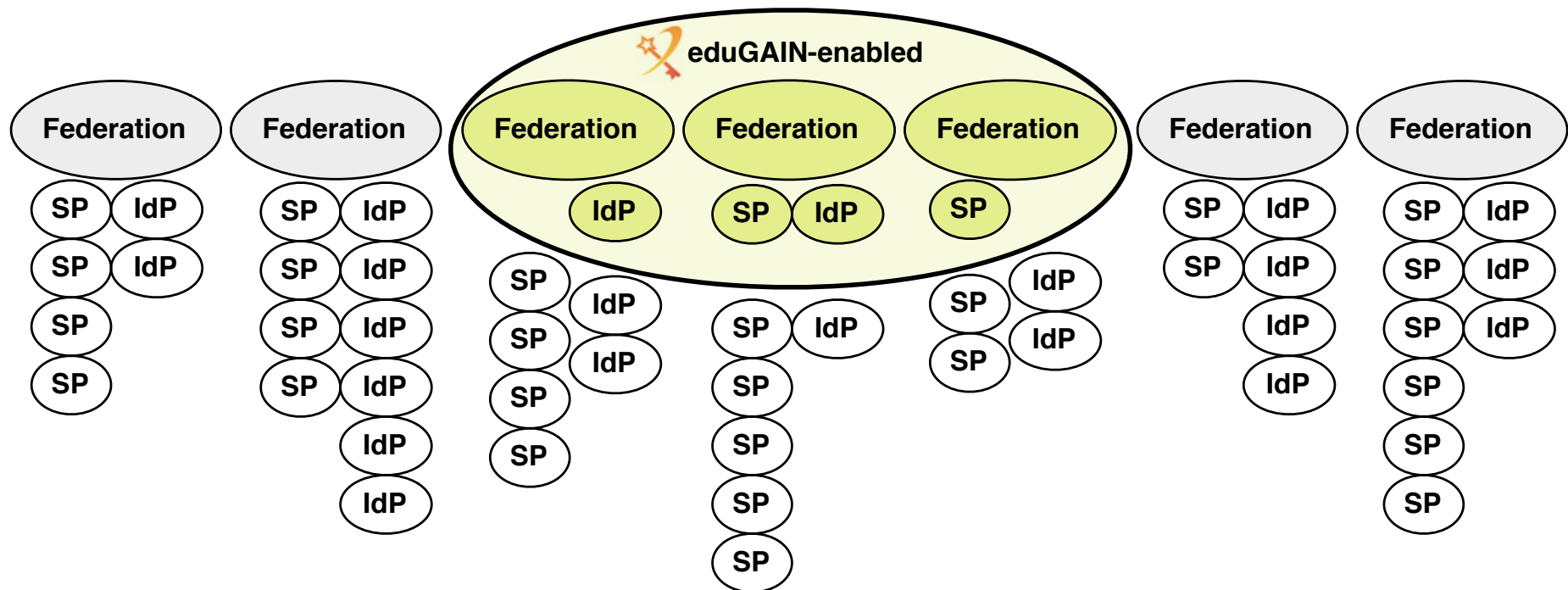
<http://www.edugain.org>

<http://www.edugain.org/technical/status.php>

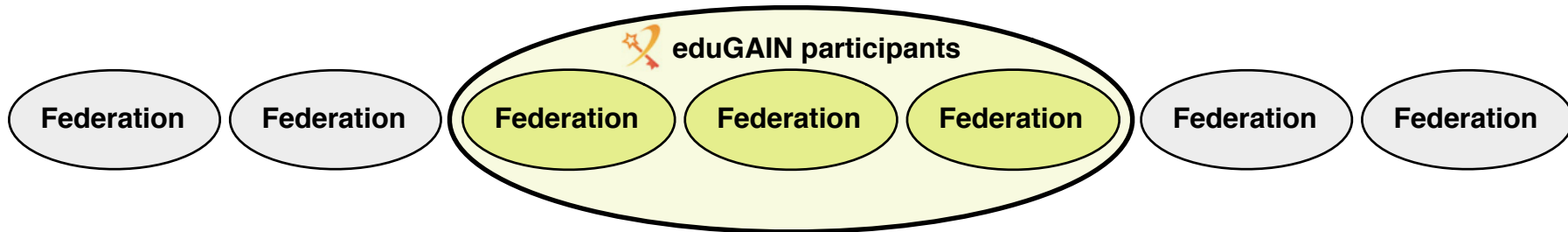


# Adoption Width vs. Depth

- Good federation adoption (Width)
- Entity Adoptions (Depth) has yet to grow



# Width and Depth in Numbers



- **65% of European national federations are eduGAIN participants**

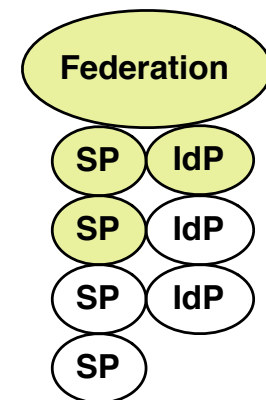
Or 51% of total 33 national federations worldwide

Source: REFEDs Wiki, <https://refeds.terena.org/index.php/Federations>

- **About 5% entities are in eduGAIN so far**

- out of 2'290 SPs and IdPs operated by eduGAIN participants

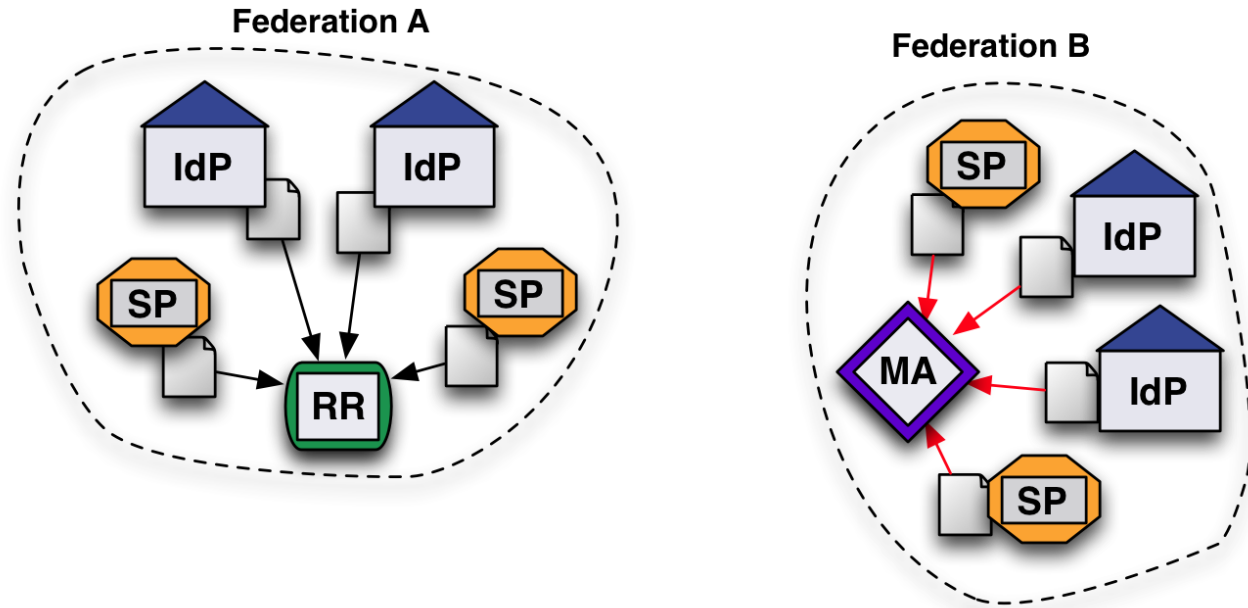
- Not every SP and IdP has good reasons to interfederate!



# How it works

- The situation with a single federation
  - The federation metadata contains all the entities
    - 1) The entities register with the federation and provide the metadata
    - 2) The federation operator publishes the metadata file
    - 3) The entities regularly fetch the metadata file and consume it

# Collect Metadata from Entities



- Federation collects metadata from the entities e.g. with

- a Resource Registry

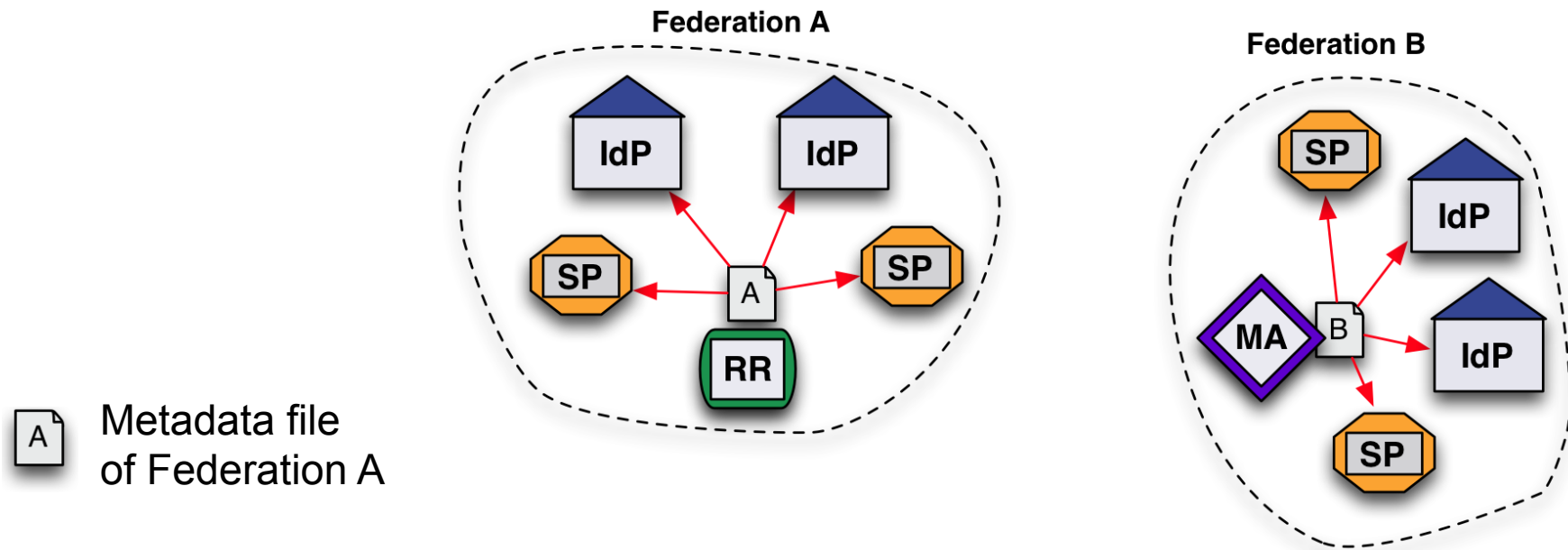


- a Metadata Aggregator that pulls its metadata





# Publish Federation Metadata

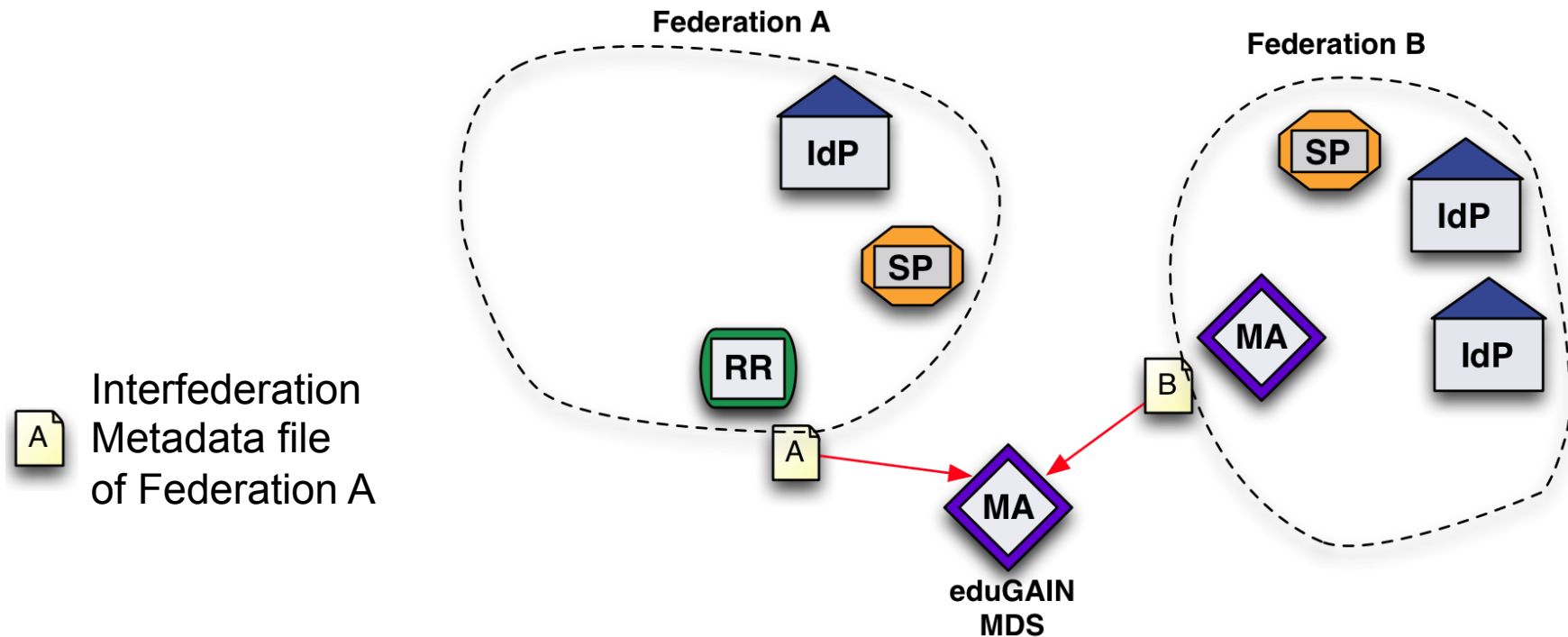


- Each Federation publishes its metadata file
- Entities fetch it from their Federation

## How it works (2)

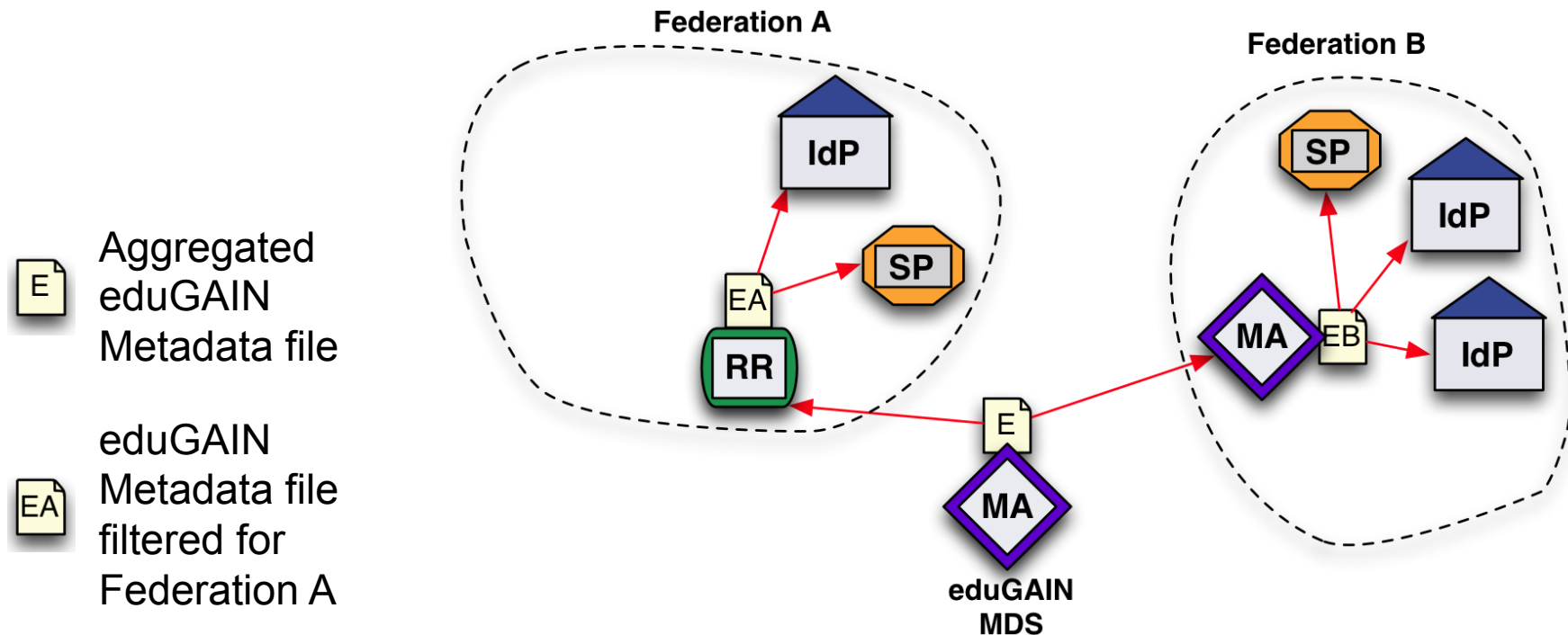
- How to get hold of entities from all the other federations?
  - 1) Each Federation publishes an additional metadata file with the entities participating in interfederation
  - 2) eduGAIN Metadata Service MDS checks and aggregates these files and publishes an aggregated eduGAIN metadata file
  - 3) Each Federation fetches the aggregated file, filters out the own entities and publishes it for the local entities that participate in interfederation.

# Publish Metadata for Interfederation



- Each Federation publishes a Metadata file with the entities that want to interfederate.
- The eduGAIN Metadata Data Service fetches them

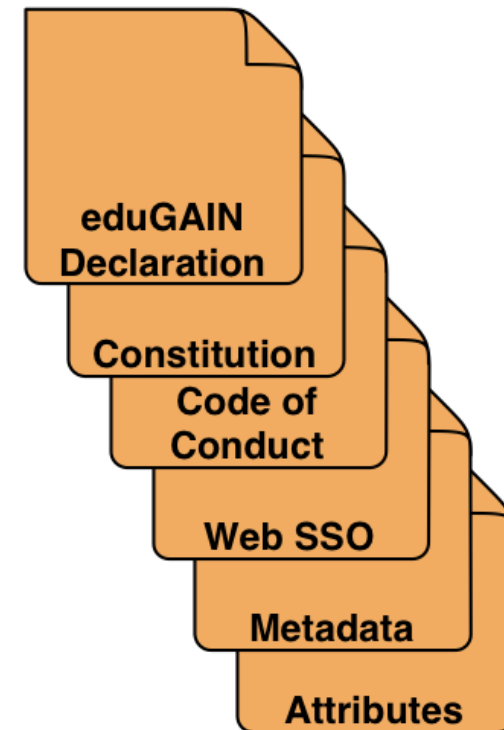
# Consume and Republish Interfederation Metadata



- eduGAIN MDS aggregates all metadata and republishes it
- Federations fetch it and filter-out their own entities
- Entities consume the filtered eduGAIN metadata file in addition to the one from the federation

# The Rules for eduGAIN

- The set of documents gets soon a minor revision
  - eduGAIN Declaration
    - *SWITCH signed it in 2011*
  - eduGAIN Constitution
  - eduGAIN Metadata Profile
  - eduGAIN Attribute Profile
    - A small set of standard attributes
  - eduGAIN SAML 2.0 WebSSO Profile
  - GÉANT Data Protection Code of Conduct



<http://www.geant.net/service/edugain/resources>