(Federated) Identity Management

Thorsten Michels

RHRZ at the RPTU

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RHRZ
Regionales
Hochschulrechenzentrum
Kaiserslautern-Landau

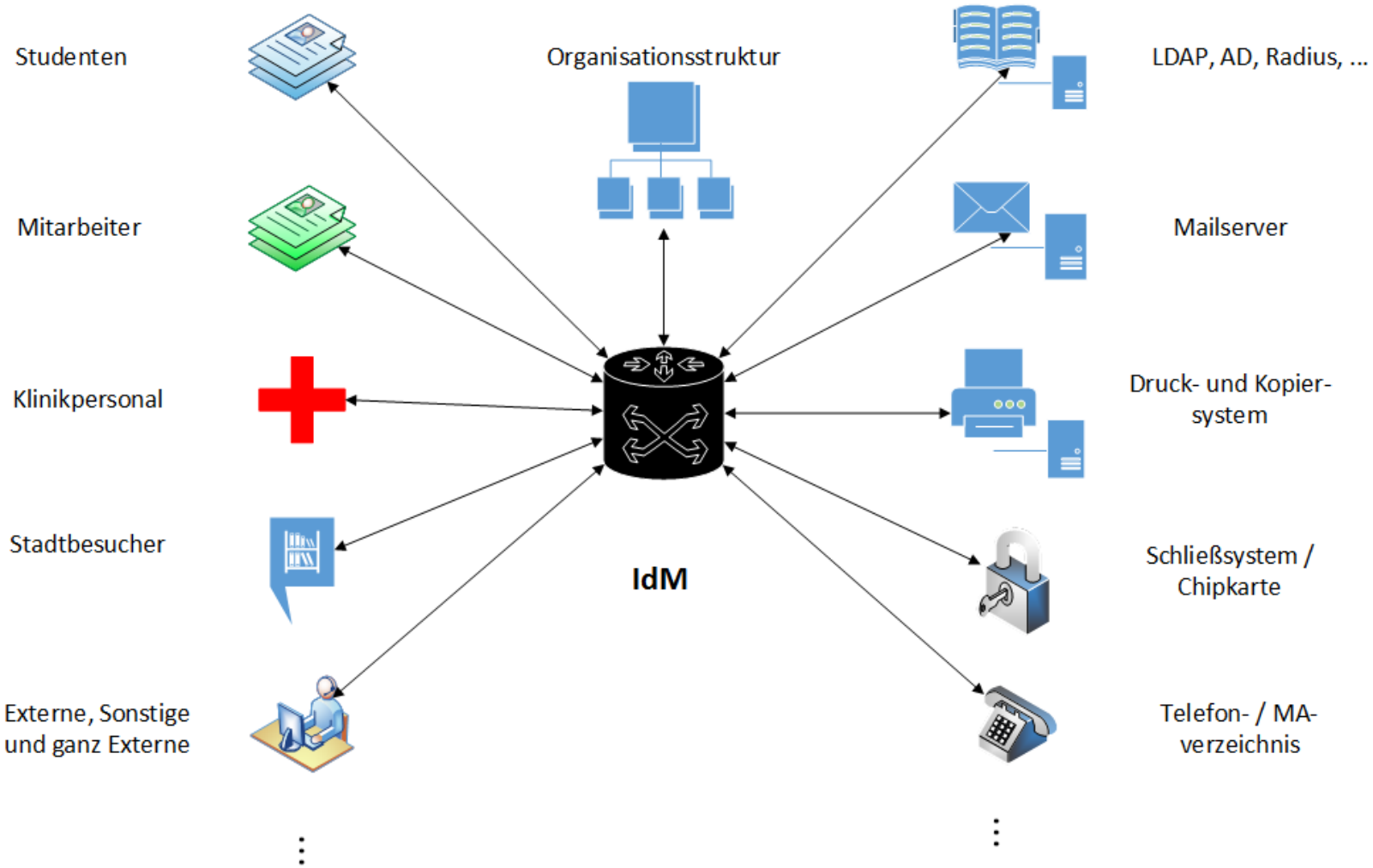
Identity- (and Access-) Management:

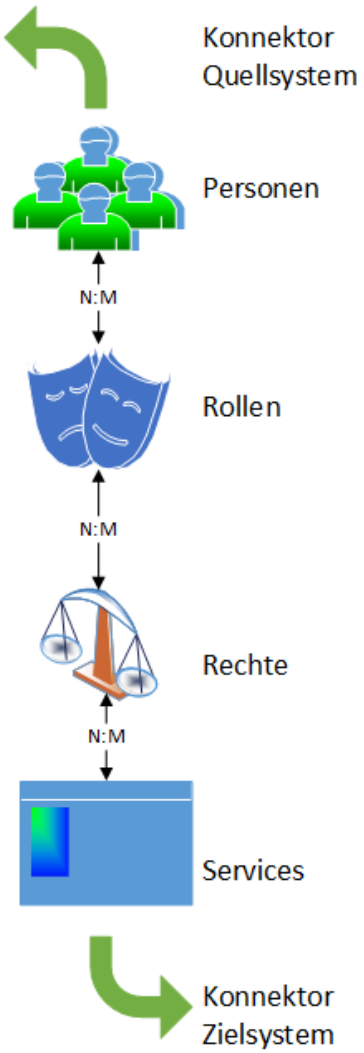
The correct group of persons has

at the correct time

the correct kind of access

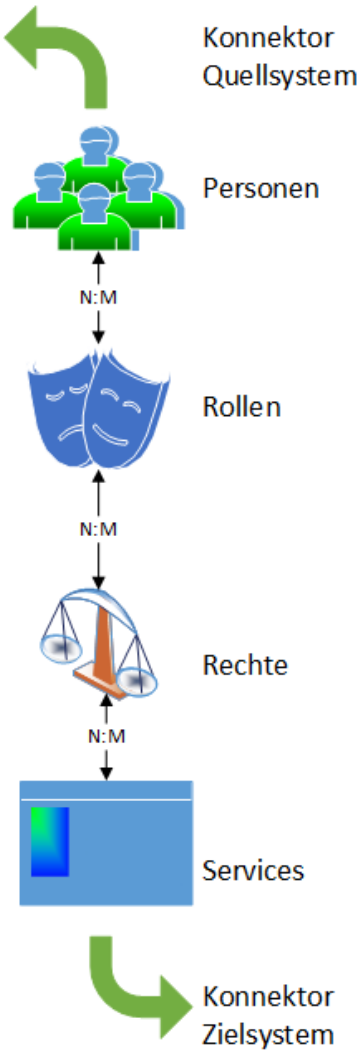
to the correct resources.


Studenten
Mitarbeiter
Klinikpersonal
Stadtbesucher
Externe, Sonstige und ganz Externe
Organisationsstruktur
IdM
LDAP, AD, Radius, ...
Mailserver
Druck- und Kopier-system
Schließsystem / Chipkarte
Telefon- / MA-verzeichnis



Persons: Identities:
How do you identify a person?

- Given name, surname, other parts of the name
- Date and place of birth



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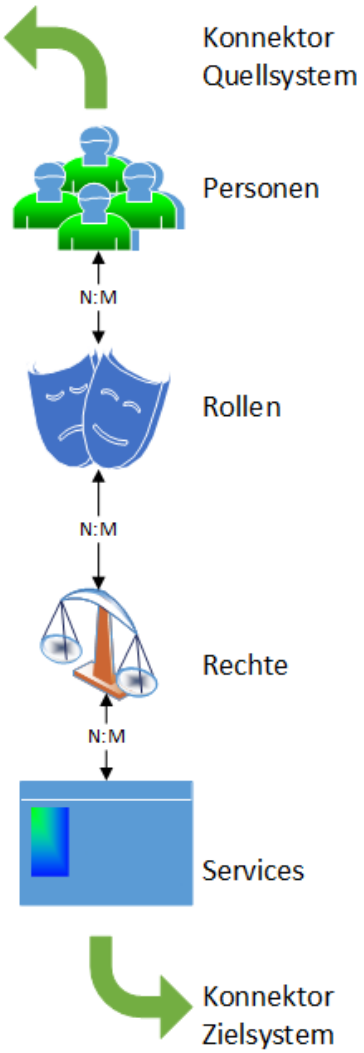

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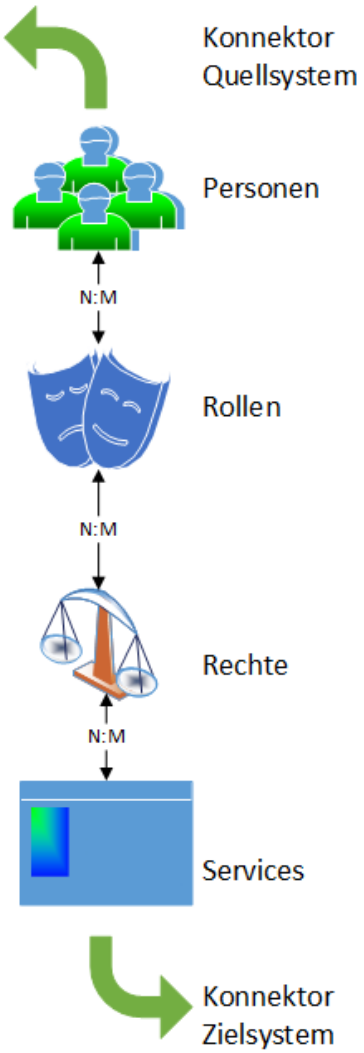

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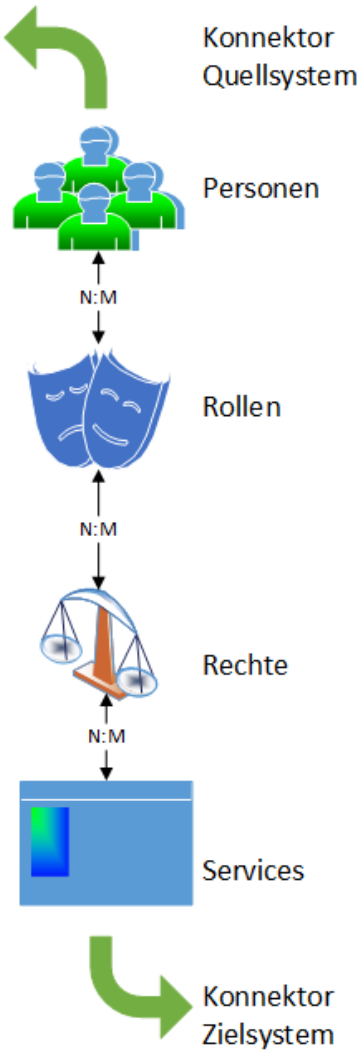
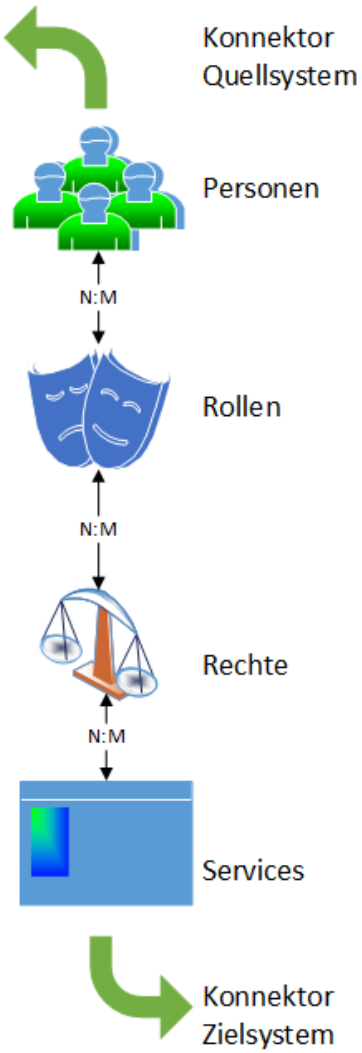
Persons might just be one kind of object in IdM:
OUs, groups, roles, target system accounts, . . . ?



Persons and their attributes

Attribut	Wert
givenName	Frank
sn	Stein
uid	mus42ter
ou	Biologie
displayName	Dr. Frank N. Stein
mail	stein@hs-pw.de, frank.stein@bio.hs-pw.de



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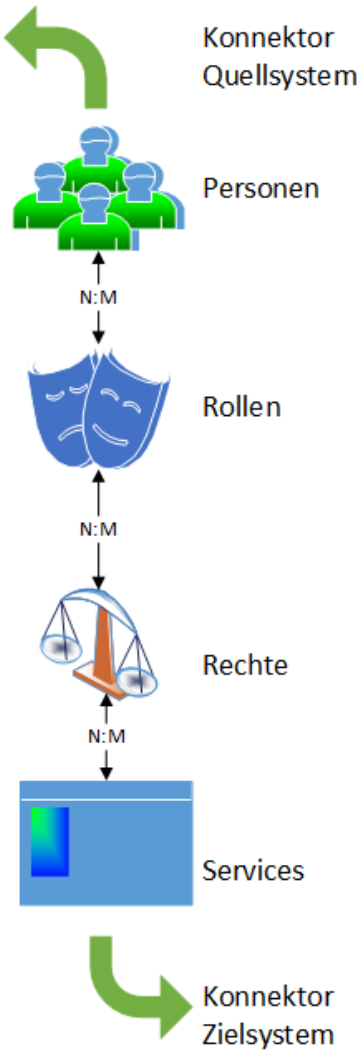

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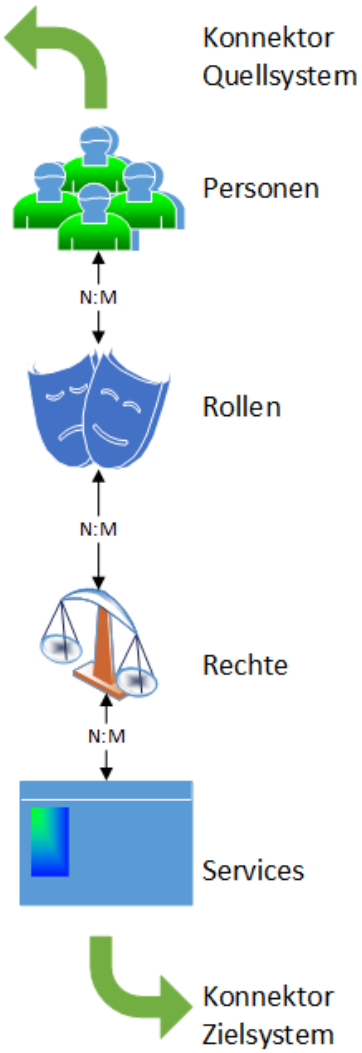
eduPersonPrincipalName	mus42ter@hs-pw.de
eduPerson[Scoped]Affiliation	member, employee, faculty, staff, student, affiliate [@hs-pw.de]



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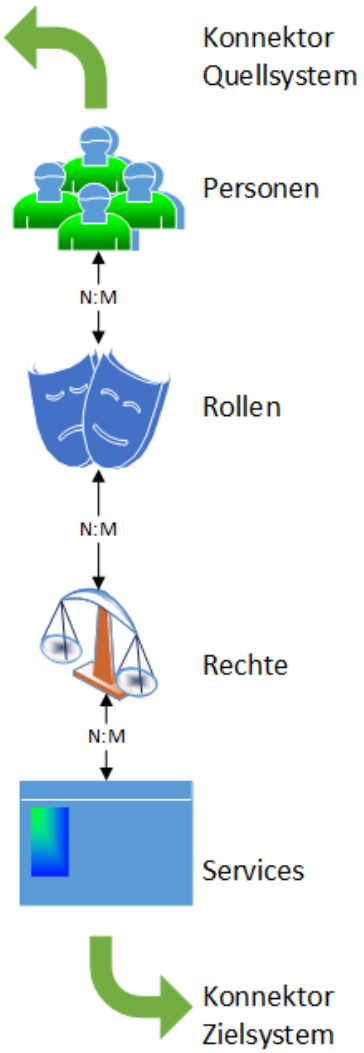
eduPersonPrincipalName	mus42ter@hs-pw.de
eduPerson[Scoped]Affiliation	member, employee, faculty, staff, student, affiliate [@hs-pw.de]
eduPersonEntitlement	urn:mace:dir:entitlement:↵ common-lib-terms http://rarp-kl.de/entitlement/hpc



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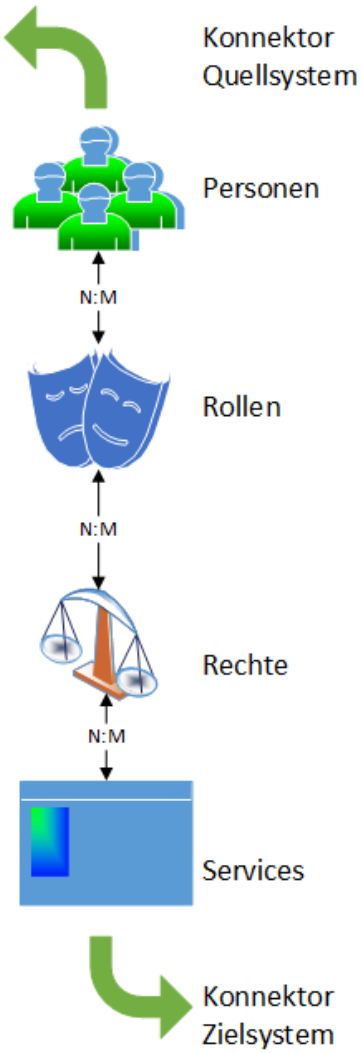
eduPerson[Scoped]Affiliation	member, employee, faculty, staff, student, affiliate [@hs-pw.de]
eduPersonEntitlement	urn:mace:dir:entitlement:↵ common-lib-terms http://rarp-kl.de/entitlement/hpc
schacPersonalUniqueCode	urn:schac:personalUniqueCode:de:↵ hs-pw.de:MatrikelNummer:123456



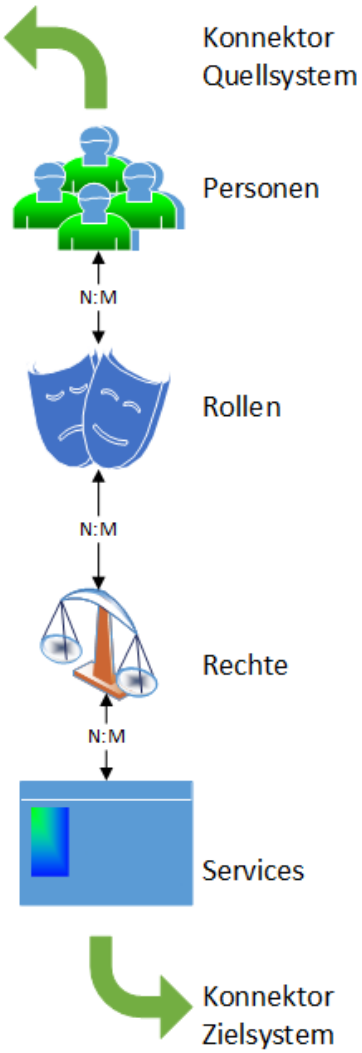
Persons and their attributes

Attributes to use as Primary Keys for persons:

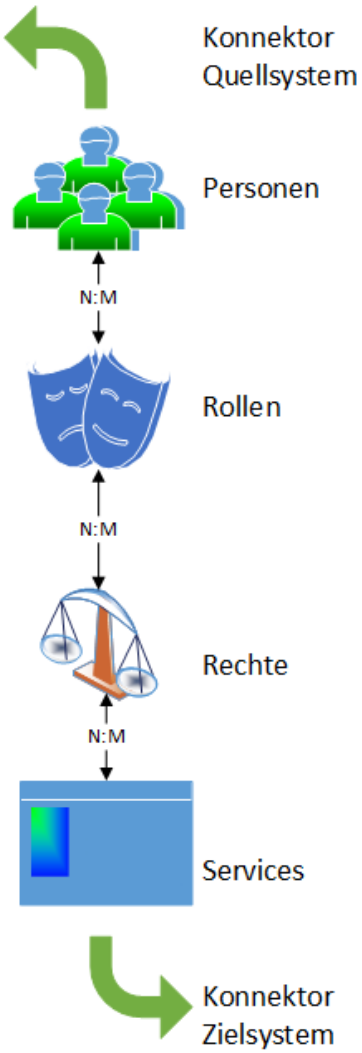
Subject ID — long-lived, non-reassignable, *omni-directional* identifier suitable for use as a *globally-unique* external key

Pairwise ID — long-lived, non-reassignable, *uni-directional* identifier, suitable for use as a unique external key *specific to a particular relying party*

Bsp.:
`MCE6NXEQ3FC3PUKY4M75EYCOWN4TGKBH@testscope.dfn.de`
https://doku.tid.dfn.de/de:aai:attributes_best_practice
https://cvs.data.kit.edu/nfdi-aai-doc/attributes/

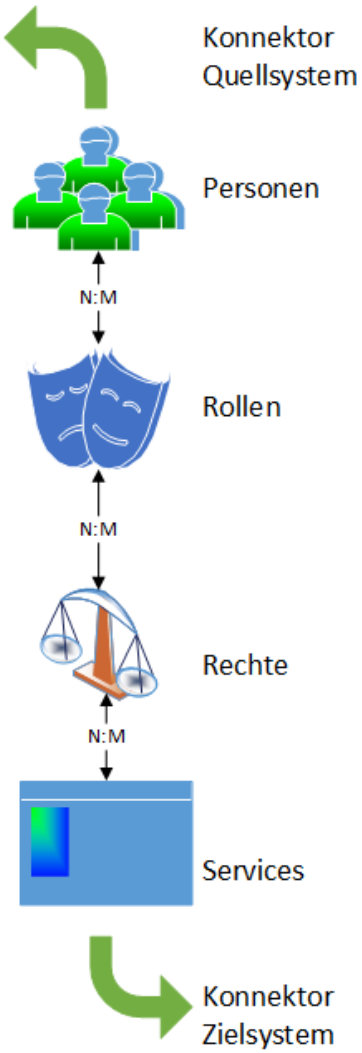


(„Primary“-)Roles:
Professors, research staff, administrative and service staff, students, „Hiwis“, interns, alumni, emeriti, guests, affiliates, whathaveyou. . .

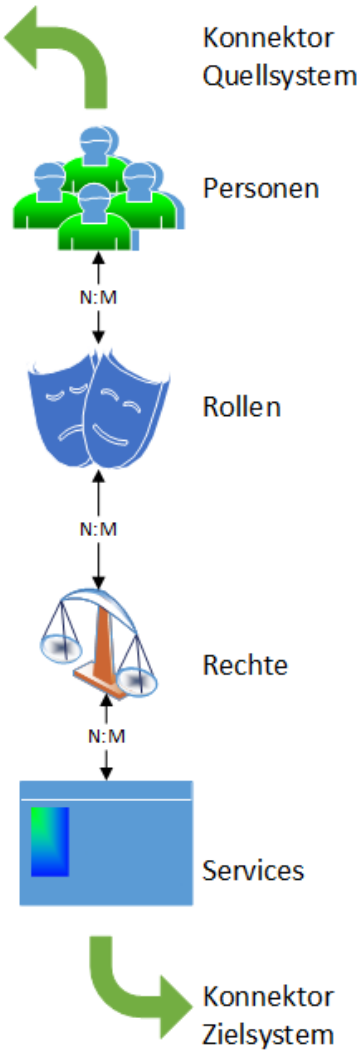


More roles:

Leader of an organizational unit (OU), president, members of committees or departments,
students of study path X, dean of department X,
members of a project,
substitutes,
...



Rights:
Read (in a certain area?), change, create, delete, discover, search, compare (→ authentication), execute



Services:
IdM-internal representation of target systems,
to which accounts are provisioned

- Transformation of accounts and attributes
- Reconciliation: Comparison of target state and actual state;
  treatment of local / orphaned accounts
- Admin / Manager account

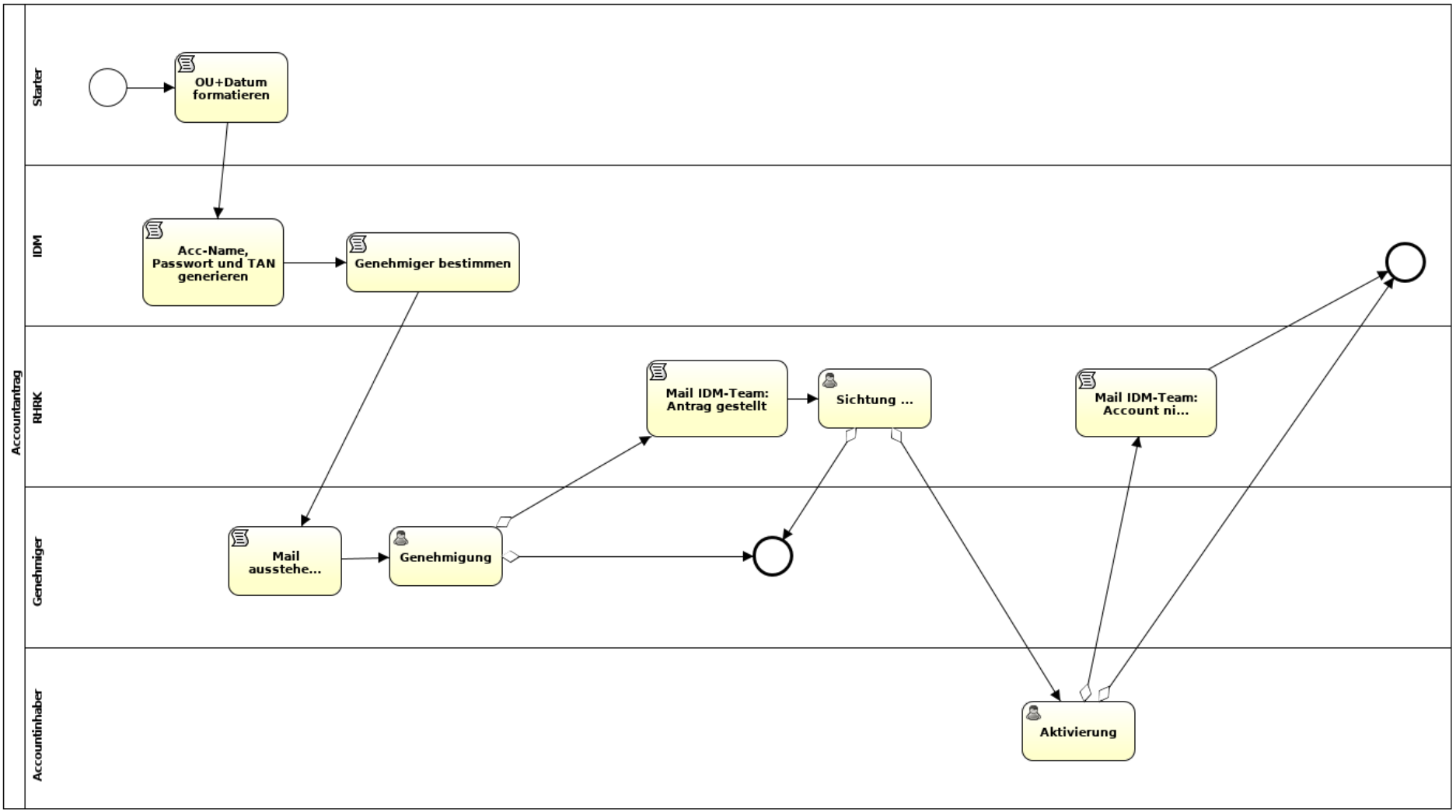
→ Cooperation with admins of target systems!

Processes: Example: Deletion of accounts

1. When the time limit of an account is reached:
   Send a warning mail to the user.
2. Two weeks later: Lock the account.
3. One month after that: Delete the account
   (and initiate account deletion on target systems).

→ Have arrangements ready to exit the process, when the account gets prolonged.

Processes:


Accountantrag
Starter
IDM
RHRK
Genehmiger
Accountinhaber
OU+Datum formatieren
Acc-Name, Passwort und TAN generieren
Genehmiger bestimmen
Mail IDM-Team: Antrag gestellt
Sichtung ...
Mail IDM-Team: Account ni...
Mail ausstehe...
Genehmigung
Aktivierung

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- Who approves or confirms this?

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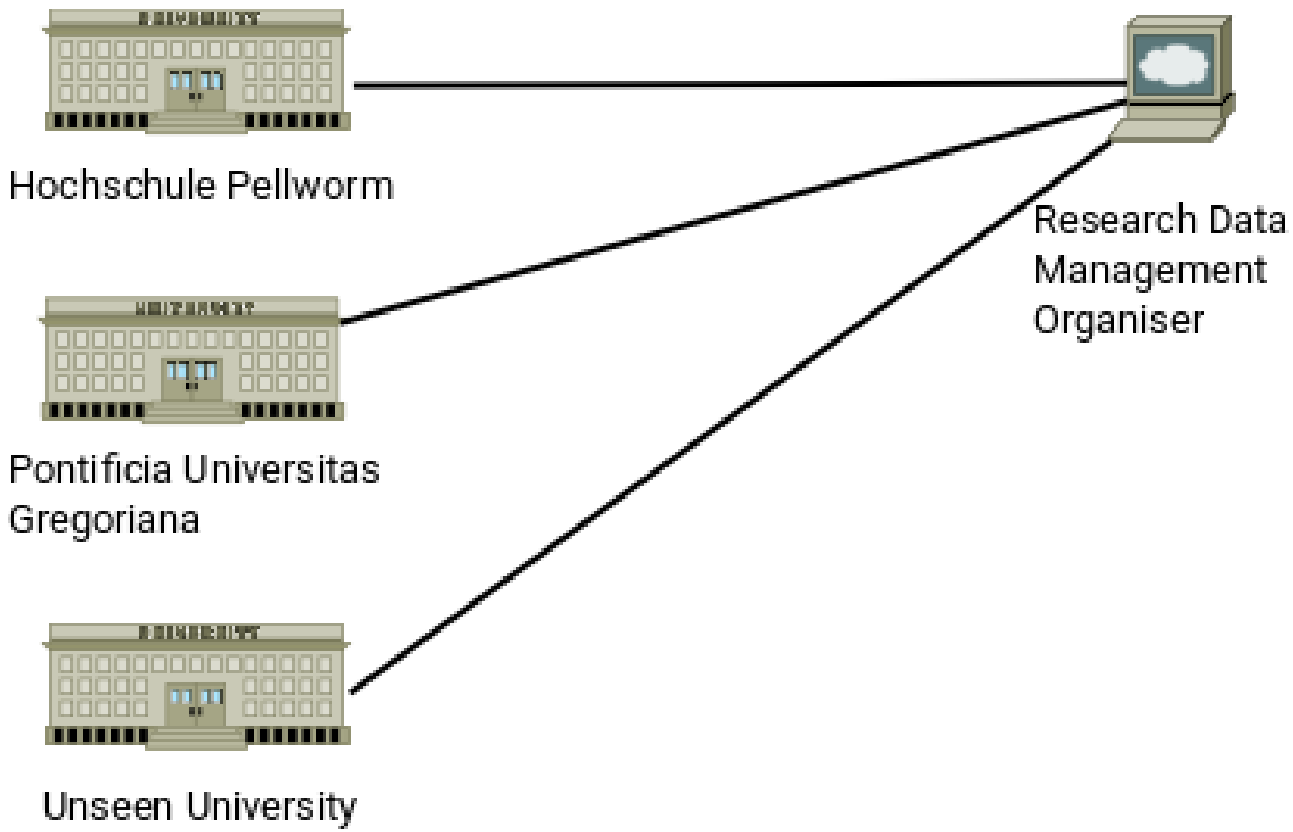
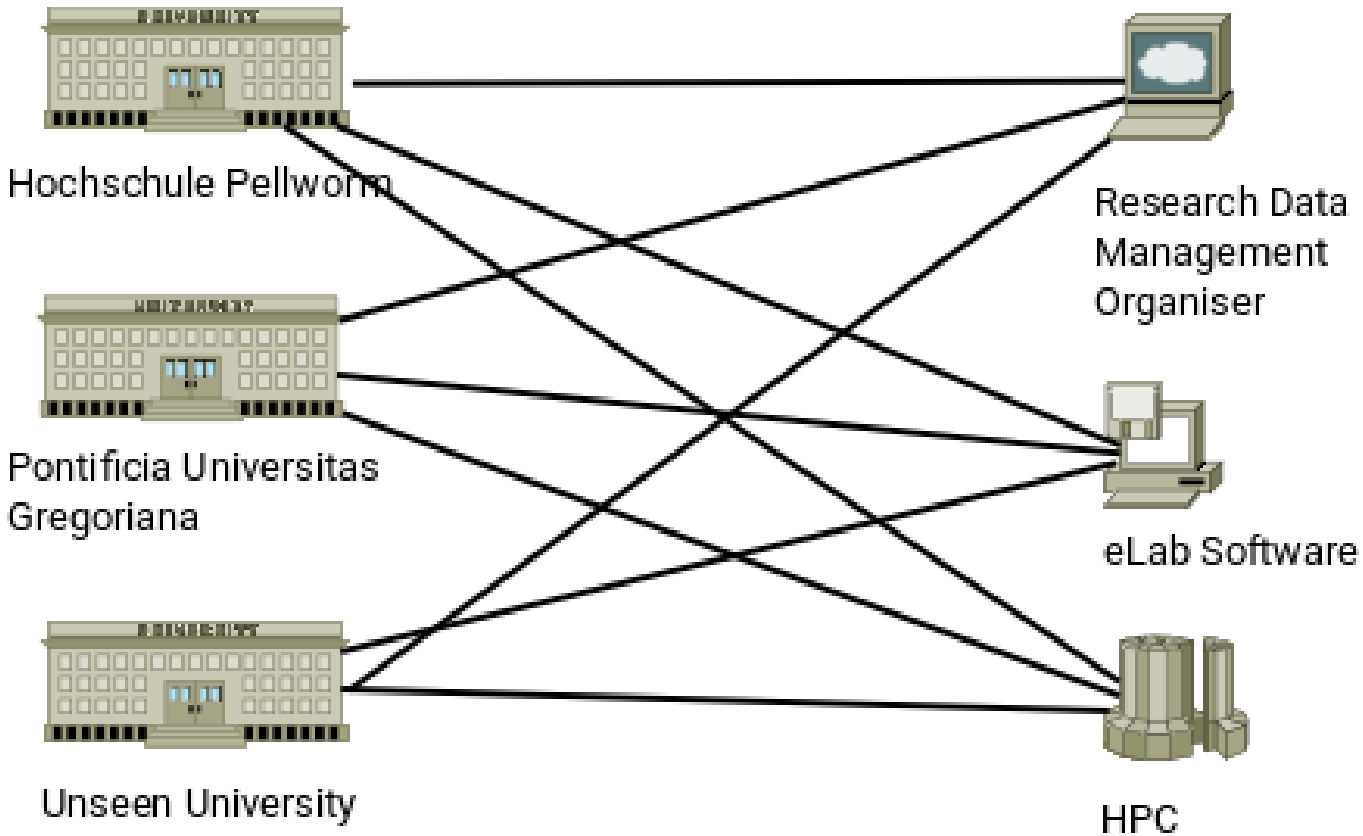
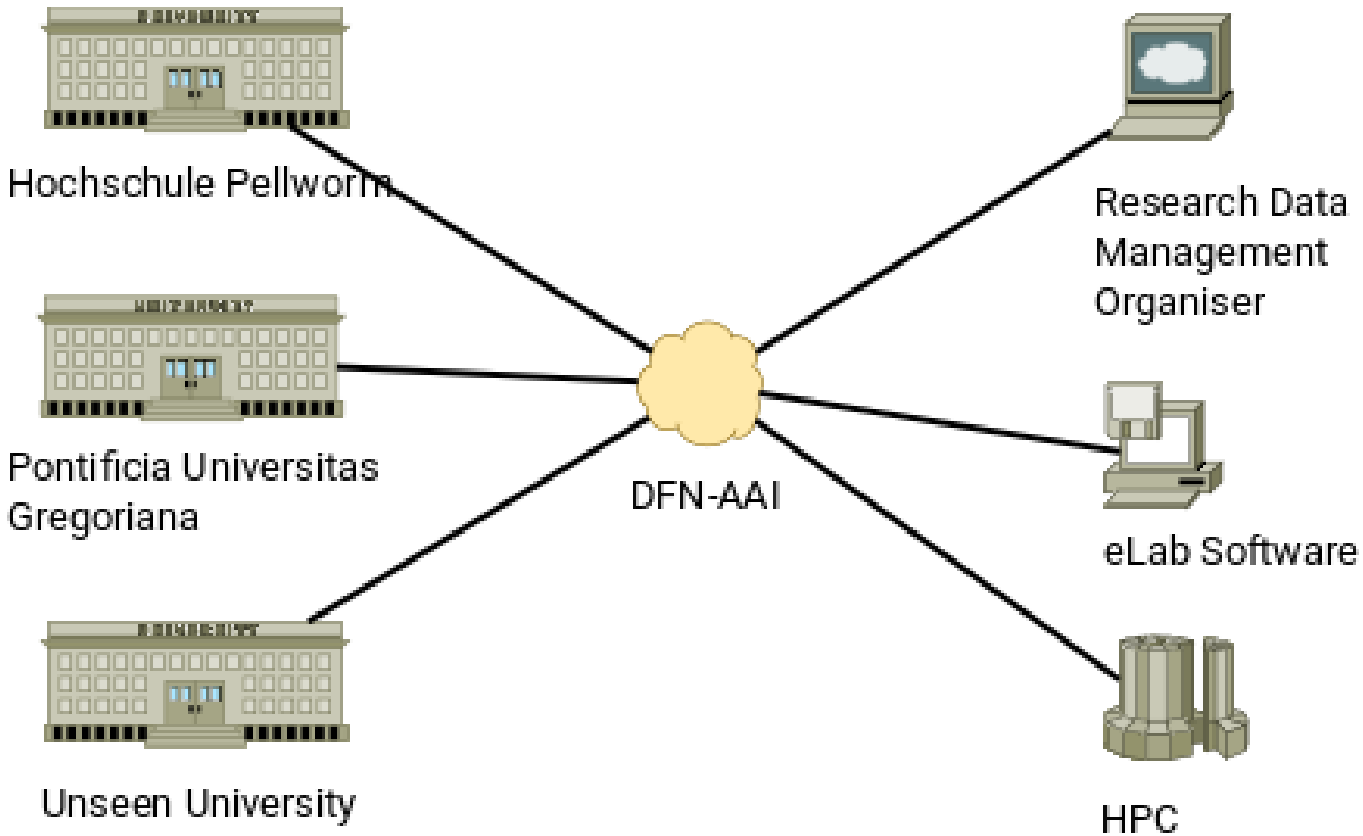
Federated Service



More Federated Services



Use the DFN-AAI!



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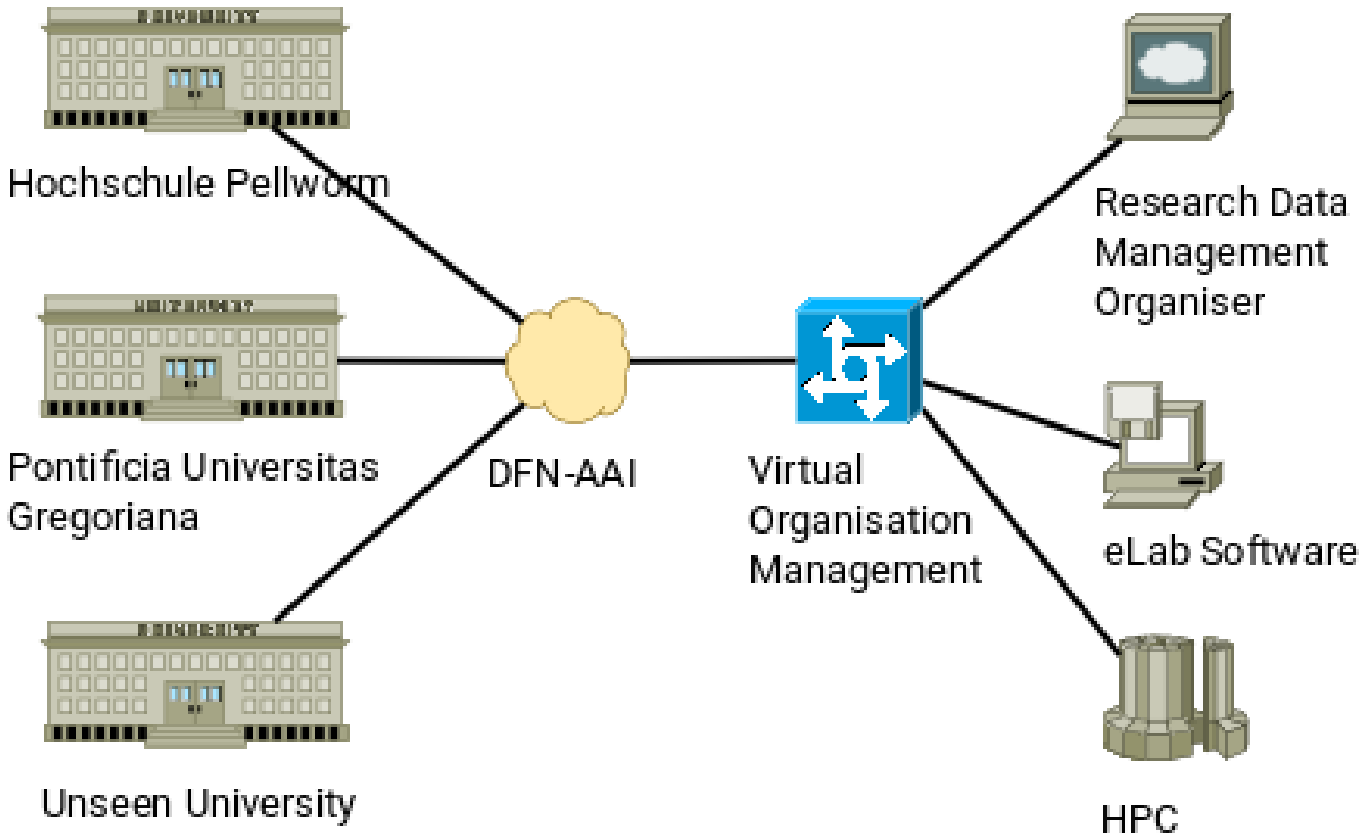

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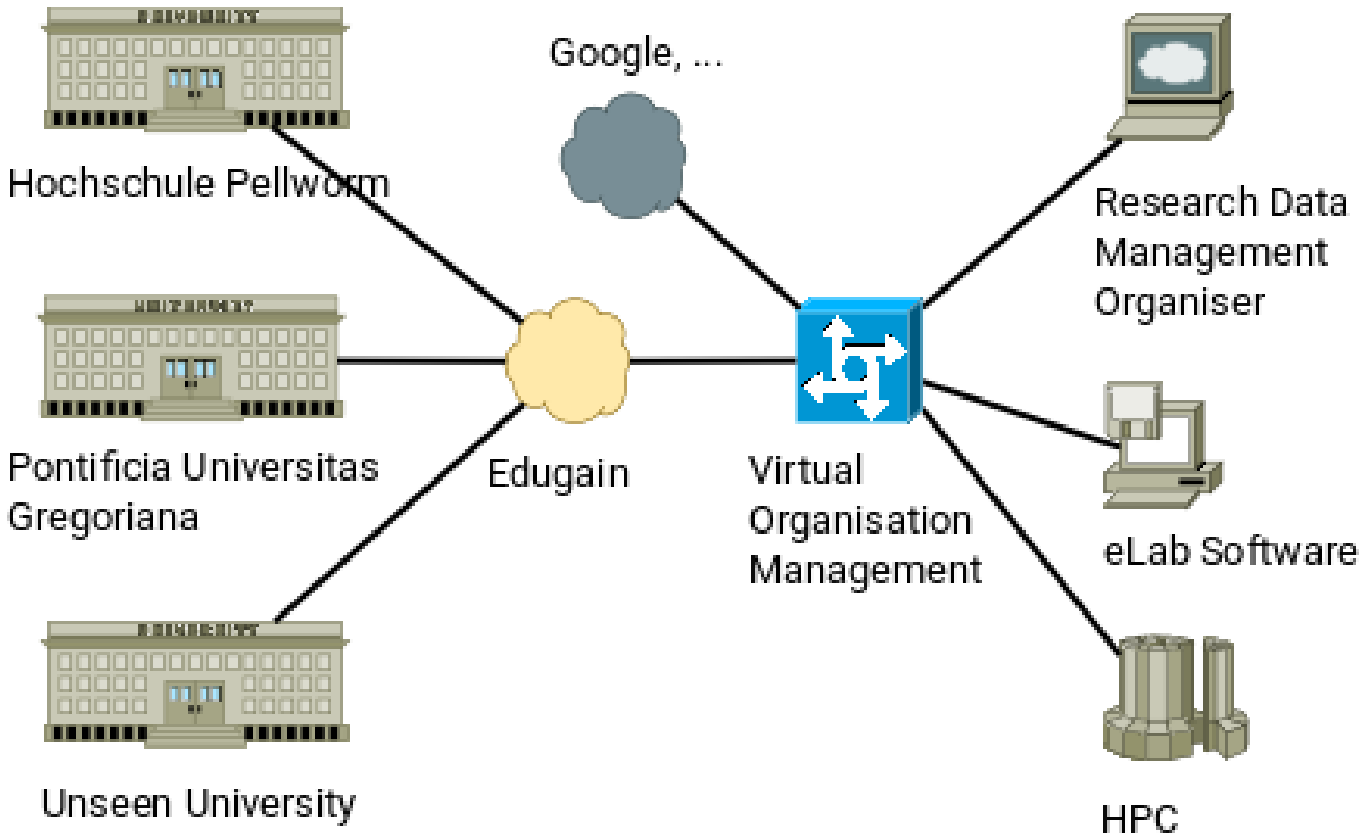

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- To centralize management of similar roles and rights for several services
- To connect services that use different protocols
  (SAML ↔ OAuth/OIDC)

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- Do you need reporting or audit features about events concerning a user?
- Deprovisioning: How do you know when to delete a user?
  And what happens to their data?