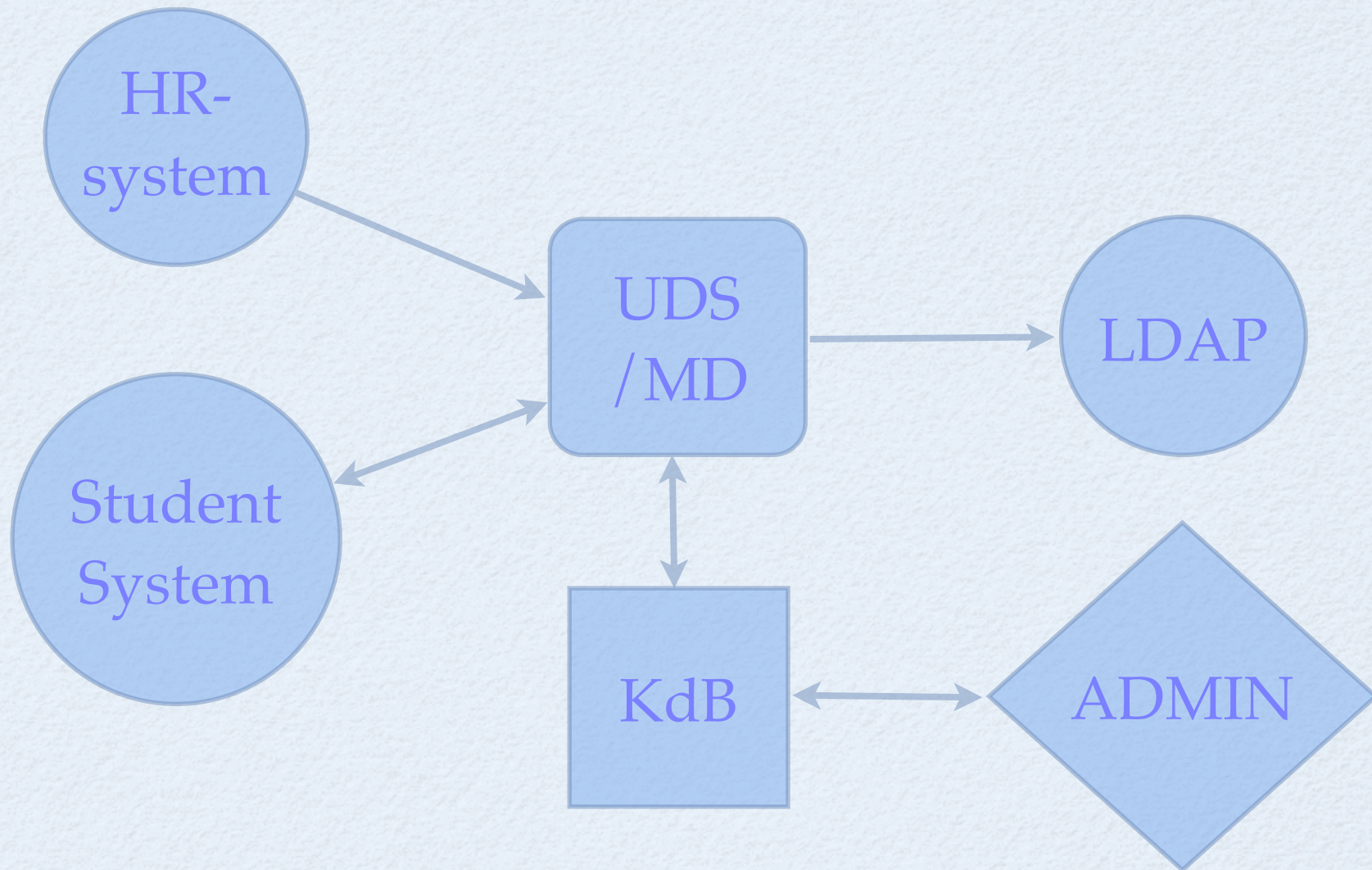


# METADIRECTORY TOOL VDS/MD

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# BASIC LAYOUT VI



# PROBLEMS WE HAVE TRIED TO ADDRESS

- **A way to uniquely identify objects within UDS/MD;** how do you match information stored about one object in one source with information about the same object at another source, when each source may have its own unique identifier for the object ?
- **Means by which information of the same kind can be addressed in a common way;** a target should not have to know under what name each source has a particular piece of information stored, and there must be one, and only one, attribute name for each piece of information that UDS/MD shall handle.
- **Harmonization of formats;** a target should not have to know all the different representations that might exist of the same type of information, therefore there has to be a common format that local representations can be converted to and from.
- **Well defined input/output formats;** information changes, that occurs in sources, that should be reflected as changes in the targets has to be represented in a common, well defined format.
- **Logic;** like when a set of attribute/values can be combined to form a new set of attribute/values

# FEATURES OF UDS/MD@UMU

- Events as RDF graphs
- Interface between and sources / sinks - DjB MailDir
- Guaranteed not to lose packets
- Content based routing
- Object Identifier mapping

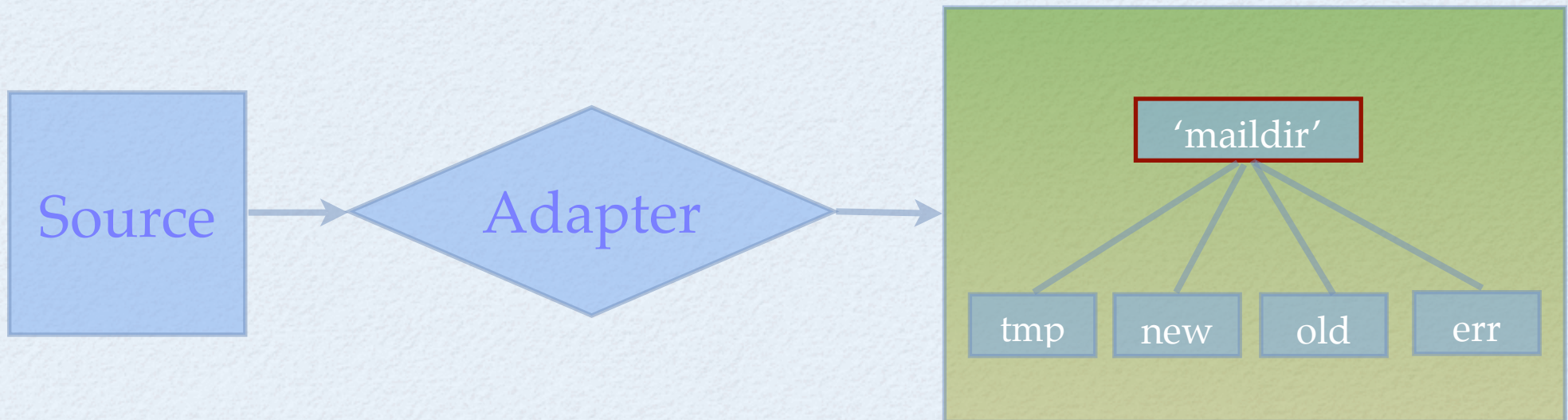
# RDF FORMAT EVENT EXAMPLE

- <uds:add> <uds:src> "primula" .
- <uds:add> <uds:eid> "6648" .
- <uds:add> <uds:person> \_:a .
- \_:a <uds:oid> "NIN:19570331-8575" .
- \_:a <uds:guise> "anst1" .
- \_:a <udsattr:norEduPersonNIN> "19570331-8575" .
- \_:a <udsattr:givenName> "Per" .
- \_:a <udsattr:sn> "Nilsson" .
- \_:a <udsattr:umuEduPersonEmploymentExtent> "100" .
- \_:a <udsattr:norEduOrgUnitUniqueNumber> "1500" .
- \_:a <udsattr:eduPersonAffiliation> "faculty" .

# OBJECT IDENTIFIER MAPPING

- One persistent ID, never reused or changed
- One or more 'local' IDs which may or may not change
- 11565371 (UDS / MD@UmU ID)
  - uid: peni0001
  - nin: 195703318575
  - dn: uid=peni0001,ou=person,dc=umu,dc=se

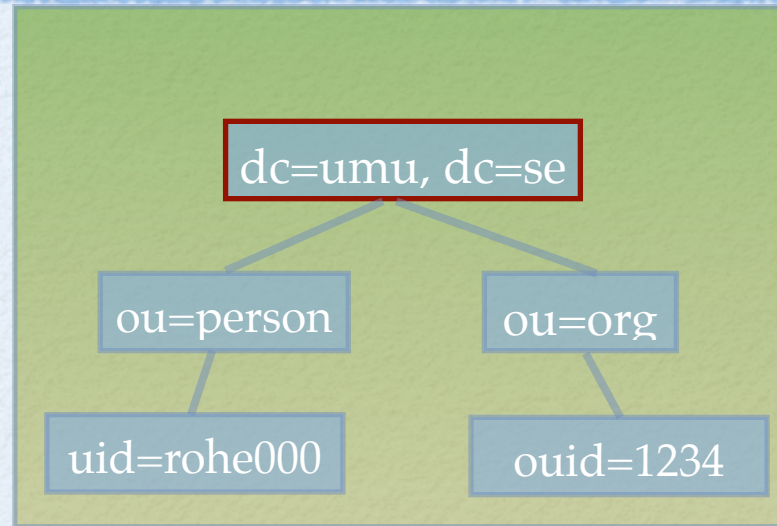
# THE PLACE OF THE ADAPTER



# WORK OF THE ADAPTER

- Character set conversion
- Import from source or export to sink
- Attribute mapping
- Attribute value harmonization
- Safe delivery
- RDF construction / deconstruction
- Logic

# LDAP ADAPTER



- We use attribute options to keep guises separate
- Logic to
  - add “ascii” versions
  - handle ‘tokenization’
  - Constructs attribute values from other attribute values

dn: uid=peni0001,ou=person,dc=umu,dc=se

displayName: Per, Nilsson

cn: Per Nilsson

objectClass: person

objectClass: organizationalPerson

objectClass: inetOrgPerson

objectClass: inetLocalMailRecipient

objectClass: eduPerson

objectClass: norEduPerson

objectClass: umuEduPerson

o;x-search: Umea Universitet

eduPersonOrgDN: dc=umu,dc=se

eduPersonPrincipalName: [peni0001@umu.se](mailto:peni0001@umu.se)

o:: VW1lw4UgVW5pdmVyc2l0ZXQ=

o;lang-en: Umea University

uid: peni0001

givenName: Per

norEduPersonNIN: 19570331-8575

sn: Nilsson

eduPersonOrgUnitDN;x-guise-anst1: norEduOrgUnitUniqueNumber=1500,ou=org,dc=umu,dc=se

eduPersonOrgUnitDN: norEduOrgUnitUniqueNumber=1500,ou=org,dc=umu,dc=se

umuEduPersonEmploymentExtent;x-guise-anst1: 100

umuEduPersonEmploymentExtent: 100

eduPersonAffiliation;x-guise-anst1: faculty

eduPersonAffiliation;x-guise-anst1: member

eduPersonAffiliation;x-guise-anst1: employee

eduPersonAffiliation: faculty

eduPersonAffiliation: member

eduPersonAffiliation: employee

ou;x-guise-anst1:: SW5zdGl0dXRpb25lbiBmw7ZyIGFya2VvbG9naSBvY2ggc2FtaXNrYSBzdHVkaWVvy

ou;x-guise-anst1: Arkeologi och samiska studier

ou:: SW5zdGl0dXRpb25lbiBmw7ZyIGFya2VvbG9naSBvY2ggc2FtaXNrYSBzdHVkaWVvy

ou: Arkeologi och samiska studier