The LDAP Schema Registry

Schema-ng Bar BoF at the 57th IETF,
Vienna, July 16, 2003

Peter Gietz, DAASI International GmbH
Peter.gietz@daasi.de

DAASI International
Directory Applications
for Advanced Security
and Information Management

BoF-AGENDA

1.) short update on the TERENA Directory Schem a Registry project

2.) collecting interests in schema listing/registry (sort of the "why are we here" question)

3.) discussion about what work should be done with the old and now resubmitted drafts

4.) discussion about if there is a need for schema-ng which may include subjects like XML-S and RDF-S

5.) aob

DAASI International

Directory Applications for Advanced Security and Information Management

TERENA DSR Project Aims

- to set up a LDAP schema registry with
  - an easy browsable and searchable Web interface
  - an LDAP interface for retrieval
  - an interface based on MIME types defined in RFC 2927 for submissions of new schema
- to define a policy defining the standards for inclusion into the registry
- to search for all schema definitions made within the IETF and include them into the registry
- to develop a business model to keep the registry alive after the end of the project.

DAASI International

Directory Applications
for Advanced Security
and Information Management

Existing Project Documentation

- Project Proposal
- Deliverable B: Survey of previous work on directory schema registry related technologies and existing LDAP schema, version 0.91
- Deliverable B-2: Bibliography for the Directory Schema Registry Project, version 0.91
- Deliverable D: Definition of an incorporation and usage policy for a Directory Schema Registry, version, version 0.90
- Deliverable C: Definition of a metadata format and DIT structure for a Directory Schema Registry, version 0.92
- Deliverable E: Specification of an architecture and user interface for the Directory Schema Registry, version 0.90

Work that could be used

- IETF WG schema
  - provided specifications for a schema listing service for the directory technologies LDAP, Whois, Whois++ and Rwhois.
  - The idea was to provide a single point of discovery, to promote reuse, reduce duplication of effort and to promote interoperability.
  - This work is based on a document [RFC 2425] that defines a MIME Content-Type for holding directory information.

Schema WG docs

- Apple, C., "Directory Schema Listing File Names", <draft-ietf-schema-file-list-01.txt>, April 1998 (expired), http://www.watersprings.org/pub/id/draft-ietf-schema-file-list-01.txt
- Apple, C., "Directory Schema Listing Meta Data", <draft-ietf-schema-mime-metadata-01.txt>, April 1998, (expired), http://www.watersprings.org/pub/id/draft-ietf-schema-mime-metadata-01.txt
- Apple, C., "Directory Schema Listing Procedures", <draft-ietf-schema-proc-list-01.txt>, April 1998 (expired), http://www.watersprings.org/pub/id/draft-ietf-schema-proc-list-01.txt
- Apple, C., "Requirements for the Initial Release of a Directory Schema Listing Service", <draft-ietf-schema-rqmts-list-01.txt>, April 1998 (expired), http://www.watersprings.org/pub/id/draft-ietf-schema-rqmts-list-01.txt

DAASI International
Directory Applications for Advanced Security and Information Management

What info will be stored in the DSR

- Metadata on specification document
- LDAP compliant definitions of the schema elements
- Single parts of schema element definitions, e.g., MUST attributes in Object Classes
- Metadata as specified by the IETF WG schema
- Separate OID tree
- Additional metadata

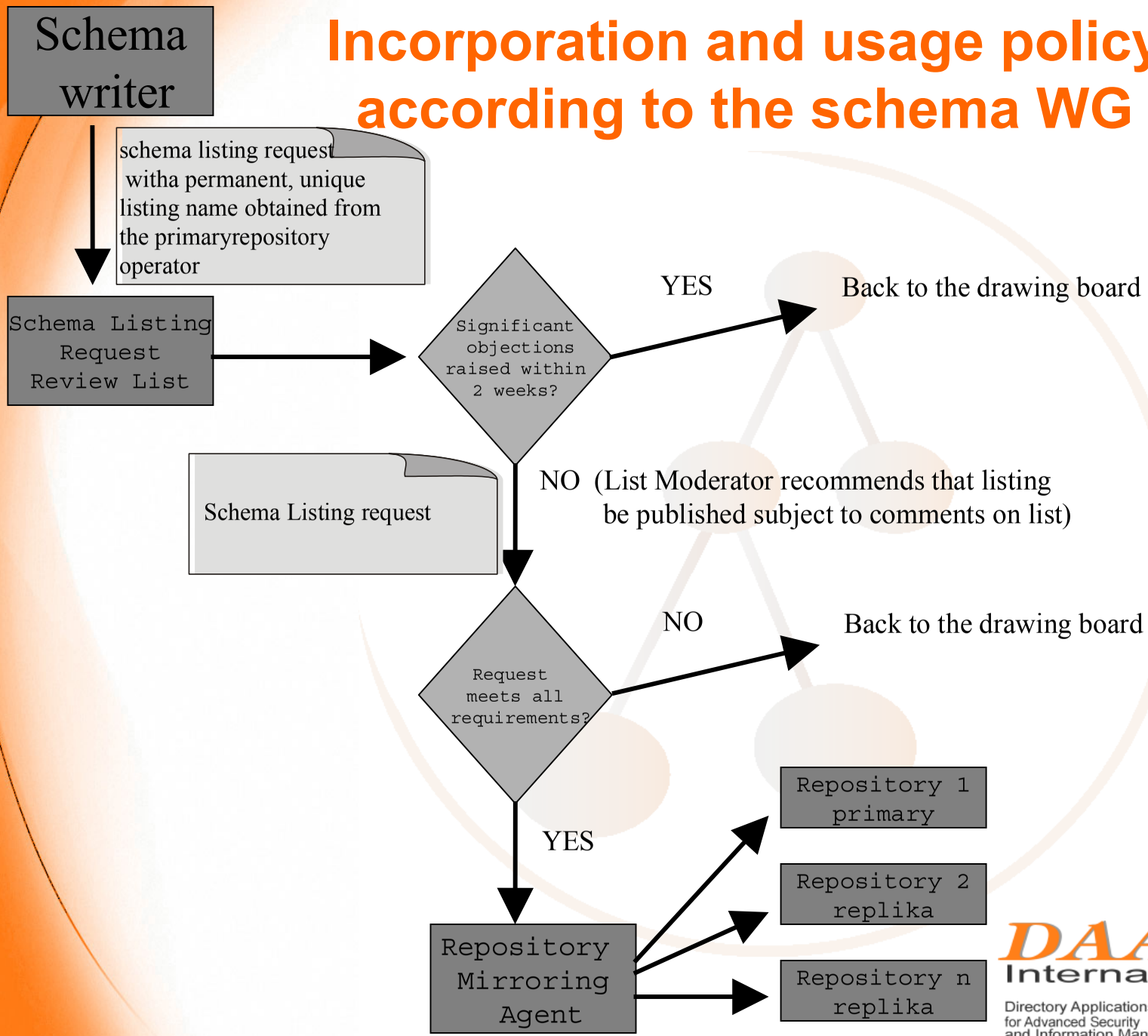
DAASI International
Directory Applications for Advanced Security and Information Management

LDAP Schema specified

- Metadata for bibliographical references
  - The Dublin Core Metadata set and its LDAP representation
  - Additional schema for person information
  - The front matter elements of RFC 2629
- Metadata specified by the IETF schema WG
  - MIME types for schema metadata and their LDAP representation (draft-ietf-schema-mime-metadata-01.txt)
  - MIME types for LDAP schema elements and their LDAP representation (RFC 2927)
- Additional schema for the DSR
  - Schema for additional schema elements not specified in RFC 2927
  - Schema for storing an OID tree
  - Schema for storing the single parts of schema element definitions
  - Schema for additional metadata

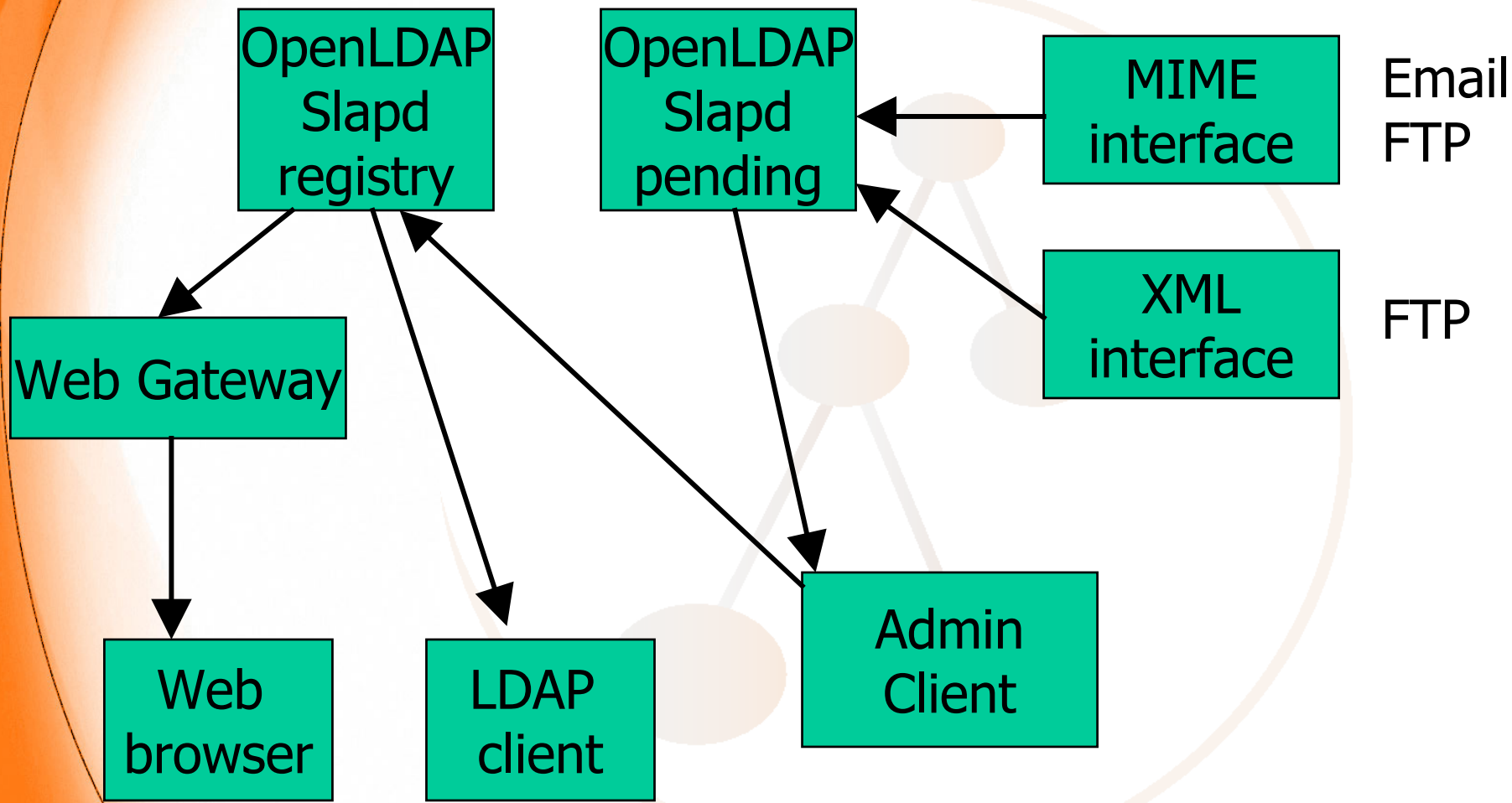
DAASI International
Directory Applications for Advanced Security and Information Management

Incorporation and usage policy according to the schema WG



DAASI International
Directory Applications for Advanced Security and Information Management

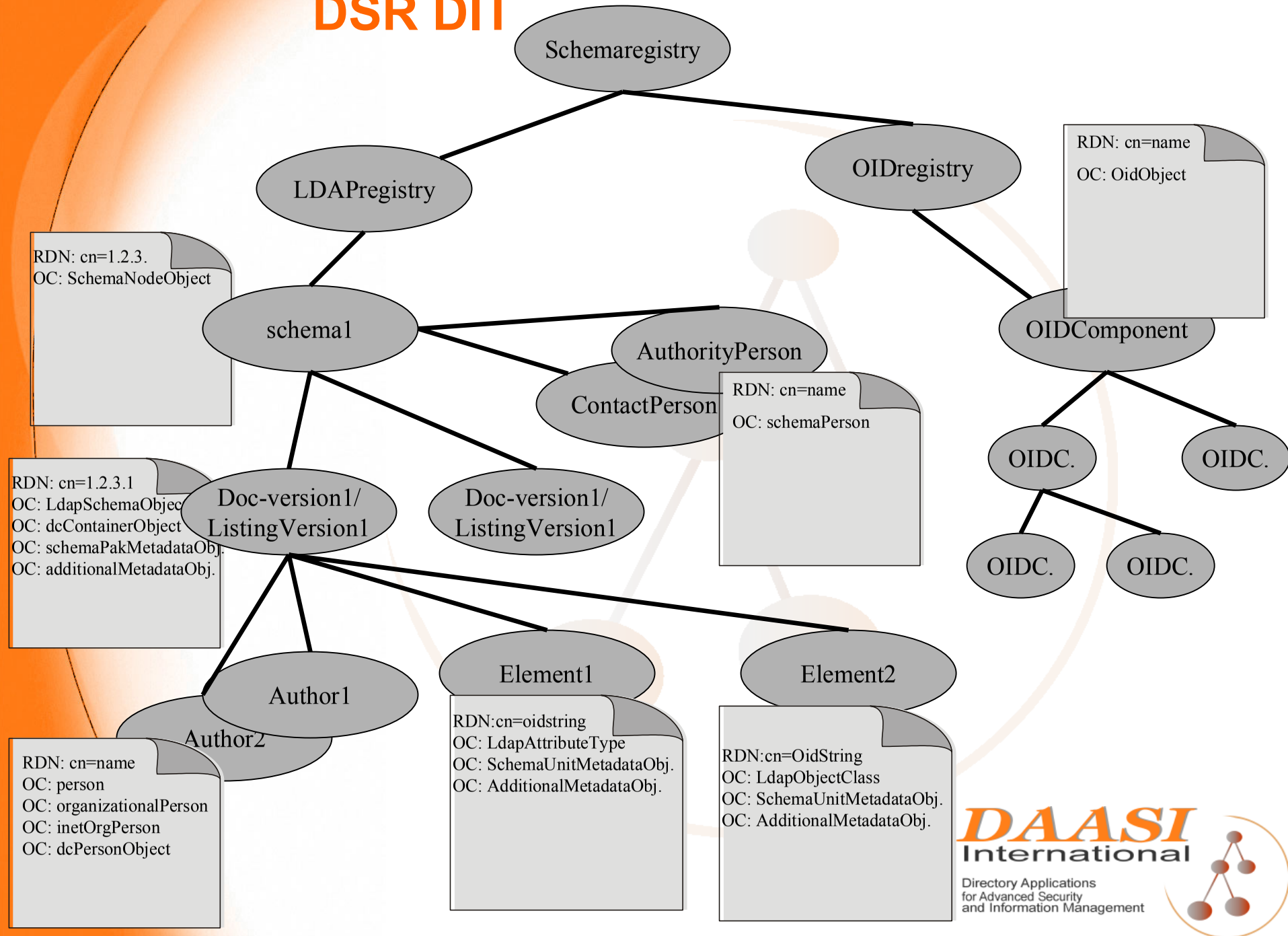
Architecture simplified



DAASI International

Directory Applications
for Advanced Security
and Information Management

DSR DIT



DAASI International

Directory Applications
for Advanced Security
and Information Management

My problems with the current drafts

- Currently two levels of granularity is:
  - Schema-pak (whole schema for a specific application)
  - Schema-unit (whois template, LDAP object class
- I‘d rather have
  - A more finegraded level of schema element (attribute type, syntax, object class, etc.) instead of the current schema-unit

DAASI International
Directory Applications for Advanced Security and Information Management

MORE PROBLEMS

- RFC 2927 is not interoperable with the other schema documents,
  - there is for example no way specified to connect metadata to LDAP schema submissions
- Nowadays XML gets more and more important
  - draft on an IANA registry for URN Namespaces, XML DTDs, XML Schemas, and RDF Schemas (draft-mealling-iana-xmlns-registry-04.txt).
  - I think it would be worth while to think about enhancing the metadata based listing service with search facility, to those schema types.

What to do?

- since 1998 a lot has changed
- Why not setup a new WG (schema-ng?) to reflect these changes

DAASI International
Directory Applications
for Advanced Security
and Information Management

Questions?

- More information at:
  - http://www.schemareg.org
  - peter.gietz@daasi.de

DAASI International

Directory Applications
for Advanced Security
and Information Management