The LDAP Schema Registry

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

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BoF-AGENDA

1.) short update on the TERENA Directory Schema 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
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.
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**

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
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
Incorporation and usage policy according to the schema WG

Schema writer

Schema Listing Request

Review List

Significant objections raised within 2 weeks?

YES

Back to the drawing board

NO

(List Moderator recommends that listing be published subject to comments on list)

Request meets all requirements?

YES

Repository 1 primary

Repository Mirroring Agent

Repository 2 replika

Repository n replika

NO

Back to the drawing board
Architectures simplified

- OpenLDAP
- Slapd
- pending
- MIME interface
- XML interface
- Admin Client
- LDAP client
- Web browser
- Web Gateway
- Email
- FTP

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 finegrained level of schema element (attribute type, syntax, object class, etc.) instead of the current schema-unit
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
Questions?

- More information at:
  - http://www.schemareg.org
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