

Review of the EPP Extension Registry

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IETF 123, Madrid

Agenda

- Overview of the EPP Extension Registry
- Current status of the Registry
- Namespace URIs
- Issues with Namespace URIs
- Improving the extension registry: RFC 7451-bis
- Possible best practices for Internet-Drafts
- Questions?

Overview of the EPP Extension Registry

- Established in RFC 7451 (February 2015).
- Intended to “to help manage and coordinate the development of protocol extensions”, since “server operators can develop different extensions to address similar needs”, harming interoperability.
- Published at <https://www.iana.org/assignments/epp-extensions/>
- Registrations are subject to expert review
 - Scott & Gavin are both expert reviewers (among others)

Current status of the Registry

Document status	# registrations
Standards Track	17
Informational (RFC)	1
Informational (other)	26
Total	44

Registrant	# registrations
Verisign	19
IESG	17
Identity Digital	3
.SE	2
.AT	1
.CN	1
.DK	1
Total	44

Namespaces URIs (non-RFC registrations only)

Extension

Common Object Attribute (COA) Extension
Namestore Extension Mapping
RGP Poll Mapping
ConsoliDate Mapping
IDN Language Tag
Mapping: WhoWas
Mapping: Email Forwarding
Mapping: Defensive Registration
Mapping: NameWatch
Mapping: Personal Registration
Mapping: Suggestion
Whois Info Extension
Extension Mapping: Jobs Contact
Low Balance Mapping
Premium Domain Extension
Balance Mapping
Registry Mapping
Related Domain Extension
DK Hostmaster local data extensions
.at Verification Extension
Domain Charge Extension
Finance Mapping
Internationalized Domain Name Mapping
Swedish Internet Foundation Extensions
Swedish Internet Foundation Registry Lock Extension

Namespace URI

urn:ietf:params:xml:ns:coa-1.0
http://www.verisign-grs.com/epp/namestoreExt-1.1
http://www.verisign.com/epp/rgp-poll-1.0
http://www.verisign.com/epp/sync-1.0
http://www.verisign.com/epp/idnLang-1.0
http://www.verisign.com/epp/whowas-1.0
http://www.nic.name/epp/emailFwd-1.0
http://www.nic.name/epp/defReg-1.0
http://www.nic.name/epp/nameWatch-1.0
http://www.nic.name/epp/persReg-1.0
http://www.verisign-grs.com/epp/suggestion-1.1
http://www.verisign.com/epp/whoisInf-1.0
http://www.verisign.com/epp/dotJobs-1.0
http://www.verisign.com/epp/lowbalance-poll-1.0
http://www.verisign.com/epp/premiumdomain-1.0
http://www.verisign.com/epp/balance-1.0
http://www.verisign.com/epp/registry-1.0
http://www.verisign.com/epp/relatedDomain-1.0
urn:dkhm.xml:ns:dkhm-4.4
http://www.nic.at/xsd/at-ext-verificationReport-1.0
http://www.unitedld.com/epp/charge-1.0
urn:ietf:params:xml:ns:finance-1.1
urn:ietf:params:xml:ns:idn-1.0
urn:se:iis:xml:epp:iis-1.2
urn:se:iis:xml:epp:registryLock-1.0

← IETF URN prefix

← Collides with a former WG I-D

← Unregistered URN prefix

Issues with namespace URIs

- URNs have a hierarchy and each segment must be registered:
 - `urn:*` - Uniform Resource Names (URN) Namespaces (RFC 8141)
 - `urn:ietf:*` - IETF XML Registry (RFC 3688)
- URNs in the `urn:*` namespace may collide with future registrations
- Possible root causes:
 - Belief that the `urn:ietf:*` namespace is “magical” in some way
 - Copy+paste from existing specifications without thinking too much about it
 - Specification was intended to become an Internet-Draft/RFC but it never happened
 - ...or is a fork of one

Improving the extension registry: RFC 7451-bis

Initial thoughts on changes:

- Specify regext (not eppext) as the venue for discussion of registration requests;
- Updated evaluation criteria:
 1. Namespace URI must be unique;
 2. Namespace URI must be registered in the appropriate registry if a URN;
 3. XSD must be provided and must validate example(s) in specification.
- Encourage registrants of existing problematic registrations to update their namespace URIs* and/or provide XSDs;
- Encourage registration of URNs used by Internet-Drafts.

** acknowledging that URI changes may have operational impacts.*

Possible best practices for Internet-Drafts

- To date, almost all EPP-related Internet-Drafts have used a namespace in the `urn:ietf:*` namespace, without it being registered.
- For those that eventually become RFCs, this is not that much of a problem.
- For those that don't, it may be, since there may be implementations in production which outlive them, e.g:
 - `draft-ietf-epext-idnmap`
 - `draft-ietf-regext-validate`
 - `draft-ietf-regext-verificationcode`
- Recommendations for document authors:
 - WG documents: use DataTracker URL as namespace URI, and switch to a URN upon publication as an RFC?
 - Non-WG documents: GitHub repository URL or equivalent?

Questions?