Status Update on IETF ENUM WG & IANA Registration of Enumservices

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The “ENUM Trilogy” has been published:

- **RFC 6116**
  The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)

- **RFC 6117**
  IANA Registration of Enumservices:
  Guide, Template, and IANA Considerations

- **RFC 6118**
  Update of Legacy IANA Registrations of Enumservices
IETF ENUM WG was concluded during IETF-80
  - Mission completed
  - Outlived its useful life (after 12 years...)

Remaining documents
  - draft-ietf-enum-iax
    - IANA Registration for Enumservice 'iax'
    - Approved by the IESG (last week)
  - draft-hoeneisen-rfc5333bis
    - Update of RFC 5333 (IANA Registration of Enumservices for Internet Calendaring)
    - Candidate for IETF APPAREA WG document
Enumservices In Short

- Needed for each service used with ENUM
- Examples
  - sip [ sip | sips ]
  - h323 [ h323 ]
  - vcard [ http | https ]
  - email:mailto [ mailto ]
  - web:https [ https ]
  - ...
- On the wire:
  
  ```
  $ORIGIN 3.2.1.0.5.5.5.2.1.2.1.e164.arpa.
  @ NAPTR 10 90 "u" "E2U+sip" "!^.*$!sips:me@ucom.ch!" .
  ```
- All Enumservices registered with IANA
  - http://www.iana.org/assignments/enum-services
IANA Registration of Enumservices: Guide, Template, and IANA Considerations (RFC 6117)
- Specifies a revision of the IANA Registration Guidelines for Enumservices
- Describes corresponding registration procedures
- Provides a guideline for creating Enumservice Specifications

Obsoletes IANA registration part of RFC 3761

Published in March 2011
- Part of the “ENUM Trilogy”
- After five years of hard work...
RFC 6117 – Goals / Motivation

- IETF's ENUM Working Group:
  - Harmonize the variation in the format of Enumservice Specifications
  - Reflect the evolution of Enumservices
  - Capture best current practices

- Authors of (new) Enumservices:
  - Clear instructions on
    - How to register an Enumservice with IANA
    - How to write an Enumservice Specification
RFC 6117 – What's New?

- For an Enumservice to be inserted to the IANA registry:
  - "Specification Required", which implies the use of a Designated Expert, are now sufficient
    - RFC 3761 required a RFC on Standards Track, an Experimental RFC, or as a BCP

- New elements in IANA Registration Template:
  - Enumservice Class
  - Enumservice Specification
Enumservice Specifications contain the following sections:

- Introduction [R]
- IANA Registration (XML Template) [R]
- Examples [R]
- Implementation Recommendations / Notes [O]
- DNS Considerations [R]
- Security Considerations [R]
- IANA Considerations [R]
- Other Sections [O]

Legend:
[R]: Required
[O]: Optional
The IANA Registration Template (XML chunk) consists of the following elements:

- Enumservice Class (<class>)
- Enumservice Type (<type>)
- Enumservice Subtype (<subtype>)
- URI Scheme(s) (<urischeme>)
- Functional Specification (<functionalspec>)
- Security Considerations (<security>)
- Intended Usage (<usage>)
- Enumservice Specification (<registrationdocs>)
- Requesters (<requesters>)
- Further Information (<additionalinfo>)
The 'iax' Enumservice is used to map E.164 numbers to IAX URIs. Such URIs identify resources capable of being contacted to provide a communication session using the IAX protocol. A client selecting this NAPTR needs to be able to support communication utilizing the IAX protocol.

See Section 4.

COMMON

Ed_Guy

Klaus_Darilion
Step 1: Read RFC 6117

Step 2: Write a R-D and submit it

Step 3: Announce R-D on <enum@ietf.org> and solicit feedback from the ENUM community

Feedback results in:
- Substantial changes needed
- Non-substantial changes needed

Legend:
R-D: Registration-Document

Update R-D and submit it

Update R-D and submit it

Step 4: Submit R-D to IANA

No changes needed
RFC 6117 – Registration Process

Step 5: Expert Review

Outcome of Expert Review:
- Experts reject
- Experts approve
- Experts request changes

Step 6: Publish approved R-D

Step 7: Addition of Enumservice to IANA Registry

You're done!

Legend:
R-D: Registration-Document
RFC 6117 – Updates / Deletions

- Updates of Enumservice Specifications
  - Same process as for initial registrations

- Deletions of Enumservices
  - Enumservices are not removed from the IANA registry
  - Instead, the <usage> element is changed to OBSOLETE
  - Same process as for initial registrations (or by IESG Action)
Wrap-Up / Conclusions

- IETF ENUM WG concluded
  - Mission completed
- Process for IANA registration of Enumservices got easier (lowered barrier)
  - Speed up
- Content of Enumservice Specifications got more exhaustive
  - Improvement in quality
  - Clear instructions on how to write a specification
- Specification no longer need to be RFC
  - Though, RFC is still recommended
Q & A / Discussion
Contact

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