# Rfc3188bis: namespace registration request for NBN

IETF 80, Prague, Czech Republic

Juha Hakala

The National Library of Finland

### NBN: general

- National Bibliography Number is not a standard, but a set of identification systems used (primarily) by the national libraries, following the local practices and needs
- They used to be local identifiers, but using them as URNs renders them globally unique
- The namespace has been in production use about a decade; tens of millions of identifiers have been assigned in several countries primarily in Europe
  - Digitized contents, harvested Web documents, e-deposit; generally materials that a) do not qualify for a true standard identifier, and b) is preserved long-term

# NBN: General (2)

- Following the introduction of URN:NBN, the national libraries have started either to assign sub-namespaces to their close partners, such as universities, or to allow others to generate URN:NBNs for their content
  - Every German doctoral dissertation gets an NBN via a system administered by the German National Library
  - Theses and other e-publications of Finnish polytechnics and several universities get NBNs from the national library
- The NBN scope is in practice unlimited; we will never run out of NBNs
  - Marked difference between NBN and some other identifier systems such as ISBN

### NBN syntax & semantics

- Every NBN string has some embedded meaning
- URN:NBN consists of
  - ISO 3166-1 two letter country code
    - URN:NBN:FI = Finland
  - Sub-division element (voluntary); the National Library must maintain a registry of these
    - URN:NBN:FI:STAT = Statistics Finland
  - Publication element
    - Beyond the requirements of URI/URN syntax specifications,
       there are no additional requirements for this section

# Resolving URN:NBNs

- There is no single source in which every UR in NBN namespace could be resolved (and there will never be)
- An interconnected network of resolvers is needed
- Every NBN contains a hint of where to find the resolver
  - urn:nbn:fi-> Finland
- Things may get a bit complicated...
  - In theory, there can be a network of national resolvers; there can be a top level resolver which harvests all the data from local resolvers
- RFC 3188 gives a number of examples
- Actual production use is wide-spread
  - Nordic countries, Germany, Italy, The Netherlands...

#### **URN:NBN** and fragments

- NBN could be used to identify a fragment of a publication (section, chapter) largely depending on whether it makes sense
- A strong recommendation has been to postpone any actions until URN syntax has been revised
- Fragment may be specified using RFC 3986 practices or by other means

# URN:NBN and fragments (2)

- Manifestations of whatever is identified with NBNs can be diverse
  - A resource (thesis, web site) may consist of 1-n files;
     for instance, there can be one for each fragment
  - One file may contain 1-n resources
  - Since the same applies to many identifier systems,
    - Fragment usage in the identifier does not imply actual fragments in the physical manifestation
    - The existence of physical fragments in the manifestation does not necessitate fragment usage in the identifier

### rfc3187bis: status and plans

- The I-D has been in the making since 2010, first as a private contribution, then as the WG deliverable
- The text is relatively mature, but once the syntax has been approved, there will be some additional things to do
  - There are clear indications that fragments will be used within this namespace; sticking to the requirements of URI syntax should be easy
- More examples on usage?