                    Naming Rights in IETF Protocols

Status of This Memo

   This memo provides information for the Internet community. It does
   not specify an Internet standard of any kind. Distribution of this
   memo is unlimited.

Abstract

   This document proposes a new revenue source for the IETF to support
   standardization activities: protocol field naming rights, i.e., the
   association of commercial brands with protocol fields. This memo
   describes a process for assignment of rights and explores some of the
   issues associated with the process. Individuals or organizations
   that wish to purchase naming rights for one or more protocol fields
   are expected to follow this process.

1. Introduction

   Normal engineering practice involves assigning names to fields in
   network protocols. These names are generally carefully chosen to
   reflect the function of the field, for example, the IPv4 Destination
   Address field.

   As protocol designers engage in their work, many become intensely
   involved with these protocol fields. Some of the most intense
   discussions within the IETF have been over details about such fields.
   In fact, it is an advantage to the continued viability of the IETF
   that dueling is outlawed in the countries in which it meets.

   But the financial realities of funding the Internet engineering and
   standardization processes may dictate that the IETF must consider
   whether names associated with such protocol fields represent an asset
   capable of responsible monetization. This notion may be offensive to
   some protocol purists; however, we believe the exigencies of the
   situation make the proposal below worthy of consideration.

This document describes a process and some issues associated with
managing the sale of commercial branding rights (or naming rights)
for IETF protocol fields. The authors believe that this modest
proposal may serve as a source of revenue capable of supporting IETF
standardization activities for years to come.

This proposal arose from the realization that the sports industry has
made energetic and successful use of naming rights, for stadiums in
particular, e.g., the Staples Center in Los Angeles (basketball),
Qualcomm Stadium in San Diego (football), Minute Maid Park in Houston
(baseball), and the Aaron's "Lucky Dog" get-a-lap-back (car racing).

The Internet has enabled a new online economy that, even in the wake
of the burst bubble in early 2000, is generating astounding growth
and new services. It is clear that many old-economy companies would
place high value on being associated with the new online economy and
would be willing to pay for the privilege. Internet protocols are
used around the world in myriad operating systems and devices. To be
part of the Internet protocols is to be part of the engine that is
revolutionizing how commerce is done. Many protocol fields are
displayed in popular user applications either as key aspects of the
GUI or in error or diagnostic messages. By requiring the use of the
branded protocol field, the IETF is in a position to put client
company brands in front of not only the thousands of software
developers who build with these protocols but also the hundreds of
millions of users who benefit from them. Finally, those who license
and brand a protocol field will be able to use that field in their
other marketing and claim, truthfully, that they are "in the
network".

This proposal includes creating a primary name value for each
protocol field in the IANA registry and setting up a process whereby
an organization or an individual can license the right to record a
name of their choice in that field.

This document makes the case for the need for additional revenue for
the IETF (Section 2), followed by an introduction of the concept of
branding in IETF protocols (Section 3). Several rules and
constraints necessary to make such a revenue stream practical are
then explored (Sections 4-14). Finally, this memo concludes with an
initial assessment of the changes required by the IANA and RFC Editor
to support such a service (Sections 15-17).

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
"SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this
document are to be interpreted as described in [RFC2119].

2. Revenue Needs

   Running the IETF is not inexpensive. It was reported at the 71st
   IETF meeting in Philadelphia, PA, USA that the 2008 budget [BUDGET]
   for the IETF had surpassed US$4.5 M, up from $4.1 M in 2007. About
   US$3 M of revenue in this budget flows directly from IETF activities,
   including meeting fees and sponsorships, and the remainder flows from
   the Internet Society (ISOC). Over the last few years the IETF has
   had to raise meeting fees repeatedly in order to keep this budget
   balance reasonable.

   Raising an additional US$1 M from the rental of naming rights could
   significantly change the budget dynamics. Perhaps meeting fees could
   be reduced for all attendees or special subsidies could be provided
   to needy students, researchers, or job seekers. Other options for
   the use of the increased revenue could be sizing the break cookies
   large enough to feed a family of geeks for a week rather than the
   mere day and a half as was the case at the 71st IETF, or renting out
   a bar for the working group chairs social rather than having to put
   up with the rowdy locals. There are many other equally deserving
   ways that the IETF could spend the resources generated by this
   proposal. It should be noted that any such benefits may have to be
   delayed for a few years to pay for the startup costs noted below.

3. How Are Branded Protocol Fields Used?

3.1. Within the IETF

   When a protocol field name is licensed from the IETF, all future IETF
   activities, and documentation for products claiming to conform to
   IETF standards, MUST use the complete branded name. The output from
   protocol implementations, and associated documentation, MUST be
   considered non-conformant if the complete branded name is not used.

3.2. Externally

   The official IETF name for a purchased field is the complete branded
   name. Thus, all externally generated documentation that references
   the protocol must be considered incomplete unless it used the
   complete branded name where one exists. The IETF leaves it to the
   licensee to enforce the use of complete branded names in non-IETF
   documents.

4. Names Must Be in Good Taste

   The combination of brand names and protocol field names must avoid
   uses that may be considered offensive by some part of the Internet
   community. Name purchases shall be reviewed for taste. Prospective
   purchasers must prepare a proposal for how the branded protocol name
   will be used in advertising or other media. (Note that a well-
   developed taste-review process may prove useful for other IETF
   activities, for example, IETF working group names, T-shirts, and host
   presentations.)

   Within the limits of taste, the branded protocol field may be used
   for any purpose.

5. When Names Change

   As has been discovered in other areas where naming rights are sold or
   leased, commercial realities and developments mean that a brand name
   can suddenly go out of favor or even cease to denote an existing
   entity. In addition, branding is leased (i.e., sold to be used over
   a limited time) and the branding for a particular field may change
   when the lease is up. Thus, there must be a mechanism to change
   branding when needed. See the IANA Considerations, RFC Editor
   Considerations, and Tools Considerations sections for more
   information.

6. Example Names

   The most effective names are those that pair the semantics of a field
   with a characteristic desirable to a sponsor. The following examples
   of good and bad pairings illustrate how an appropriate pairing can be
   appealing.

6.1. Acceptable Taste-Wise

      IP: Garmin GPS Destination Address
      IP: White & Day Mortuary Time-to-live
      TCP: Princess Cruise Lines Port Number
      ARP: Springfield Preschool Timeout
      BGP: Sharpie Marker field
      TFRC: Traveler's Insurance Loss Period
      SCTP: Hershey's Chunk {type|flags|length}
      SMTP: eHarmony HELO

Protocol names appear within the fields of other protocols;
therefore, the protocols themselves may be candidates for branding:

      BEEP: AAA BEEP
      SOAP: Downey SOAP
      PPP: FloMax PPP

There is no requirement for branding to be limited to company names
or other trademarked terms. For example, a publisher could decide to
honor one of their authors:

      The Thomas Wolfe Source Address Field

6.2. In Bad Taste

      SIP: Seagrams Vodka SIP Event
      SIP: Calvin Klein Event Package
      IP: Viagra Total Length

6.3. Confusing Names

   Places where the brand could interfere with the understanding of the
   protocol are prohibited:

      SMTP: US Postal Service Mail command
      IPv6: ITU-T Protocol field
      IKE: RSA Vendor ID

6.4. Valid Names

   In order to be printed in the ASCII-only Real-RFC (described in
   Section 16) all brands must include an ASCII form. The ASCII name
   MUST conform to the requirements in RFC 2223 [RFC2233]. The brand
   MAY optionally include a UTF-8 version for use in non-ASCII
   representations. See RFC 3629 [RFC3629].

7. Who Can Buy Naming Rights?

   Any organization or individual can purchase the right to brand a
   protocol field. The IETF will not undertake to ensure that the
   purchasing organization has the right to use the name they choose to
   use. All purchasing organizations MUST indemnify the IETF against
   any challenges to the authority of the purchasing organization to use
   the name.

8. Scope of Naming Applicability

   Because the application of IETF protocols is not controlled in a way
   that corresponds to legal jurisdictions, it is difficult to restrict
   naming rights to include just those places where a particular
   trademark may be registered. The process described in this memo does
   not include the use of geographic or geopolitical boundaries on the
   use of branded fields. The design team is working on a proposal to
   overcome this issue. If the design team is successful, the same
   proposal should find application in a number of areas of
   international diplomacy.

9. Who Can Sell Naming Rights?

   The IETF SHALL retain the sole right to permit branded protocol names
   to be used within IETF protocols. The IETF MAY sell rights for
   external use of branded protocol names if the protocols have been
   developed within the IETF process and if the protocol field has not
   already been branded by someone else using the same process.

10. Pricing

   Multiple pricing strategies for the naming rights to protocol fields
   will likely be used over time. The primary objective of pricing is
   to enable the greatest possible revenue for the IETF. Initially,
   prices will be set by negotiation between the party wishing to
   purchase the naming right and the Internet Auction Board (IAB)
   representative. However, we strongly suggest migrating to an all pay
   auction (also known as a Tullock auction) for finding the optimal
   price when there are multiple bidders [KOVENOCK]. Alternatively,
   open-outcry auctions [EKLOR], perhaps with a secret reserve price,
   could be held at IETF meetings using a BoF session, permitting taste
   review and brand assignment (sale) to be conducted concurrently and
   with open participation. See [MILGROM] for information on various
   auction styles.

11. Time of Ownership

   The design team could not come to consensus on a default term of a
   lease of the authority to name a protocol field. It was split
   between a term that would best represent the half-life of an Internet
   startup (1 or 2 years) and a term that would best represent the
   half-life of a product offered by a mature Internet company (8 to 10
   years). The idea of terms any longer than 10 years, for example,
   leases that would terminate when a protocol advanced on the standards
   track (i.e., roughly infinite), was discussed but generally discarded
   because so few companies survive in any recognizable form for that

length of time in the Internet space. In the end, the design team
concluded that the lease term should be part of the negotiation
between the IETF and the purchasing organization.

12. How Are Naming Rights Purchased?

   The right to name a protocol field is purchased using the following
   process: licensees complete an application where they identify the
   protocol field they wish to use and the particular RFC in which it
   appears (Internet-Draft tags are available for short term lease). At
   that time, they identify their brand and present their proposal for
   external use and length of ownership. The next step is a taste
   review followed by an auction or IAB negotiation. The purchase
   concludes with the IANA updating their protocol field name mapping
   database.

13. Dispute Resolutions

   All disputes arising from this process MUST be resolved using the
   ICANN Uniform Domain-Name Dispute-Resolution Policy [UDRP]. While
   the protocol fields are not domain names, branding them presents the
   same types of issues and we feel that it's better to make use of an
   existing process rather than to invent a new one.

14. Future Expansions

   If this proposal proves successful, it can be easily expanded to
   include other protocol features such as options and parameters. For
   example:

      IPv6: The Herman Melville Jumbogram option

15. IANA Considerations

   Upon the adoption of this proposal the IANA SHALL set up a protocol
   field-to-brand-name database (the "IETF Protocol Branding Catalog")
   that includes all protocol fields in IETF-developed or -maintained
   protocols. This database can be bootstrapped from the existing
   protocol registries database [PROTREG], but this list will have to be
   augmented to include all fields in all IETF protocols, even the ones
   in which no IANA assignments are made.

   The two brand name fields associated with each protocol field (the
   ASCII field and the optional UTF-8 field) are initialized as NULL.

Whenever the IETF leases a protocol field, the IANA SHALL enter the
brand name(s) into the brand-named fields associated with the
protocol field and SHALL set the lease termination date to the proper
value.

In addition, the IANA SHALL regularly scan the database to look for
leases terminating within the next 30 days and inform the IETF of any
such leases so that the IAB can approach the leaseholder to sign up
for an additional term. The IANA SHALL remove any brand names from
their database when the lease expires.

16. RFC Editor Considerations

Upon the adoption of this proposal the RFC Editor SHALL create XML
versions of all IETF RFCs. The XML must be such that a perfect copy
of the original RFC can be produced using a tool such as xml2rfc
[XML2RFC]. The XML versions of RFCs must identify all individual
protocol fields using an XML protocol field element of the form:

   <pfield name="IPv4 Destination Address"/>

(Doing this for all existing RFCs may involve some work.)

As the XML RFCs are completed, the RFC Editor SHALL then create an
ASCII version of the RFC from the XML file using the naming
convention of "Real_RFCxxxx.txt". During the translation, each
protocol field is looked up in the IANA protocol field-to-brand name
database. If there is an ASCII brand name associated with the
protocol field, the word "the" and the brand name are prepended to
the IETF name for the field (unless the name appears in ASCII art
where changing the length of the name would distort the art). For
example, if the protocol field is "Destination Address" and the brand
name in the IANA database is "Garmin GPS", the string "the Garmin GPS
Destination Address" would be used in the Real_RFC. Changing the
lengths of such names may require adjusting the other details of the
document such as page numbering in the Table of Contents. The
software to do some of the formatting might be a bit tricky.

The RFC Editor may optionally produce other non-normative versions of
Real_RFCs. For example, a non-normative Portable Document Format
(PDF) version may be created in addition to the ASCII Real_RFC
version. The RFC Editor may use the UTF-8 brand, if present, in such
alternate versions.

The Real_RFC SHALL be used for all normal purposes within the IETF
and elsewhere with the original version being reserved as an archival
reference.

The RFC Editor SHALL rebuild all the Real_RFCs on a regular basis to
create up-to-date Real_RFCs that reflect the current status of the
protocol field licenses.

The RFC Editor SHALL provide a list of un-leased field names to the
IANA for inclusion in the IETF Protocol Branding Catalog.

17. Tool Builder Considerations

Upon the adoption of this proposal, the maintainer of the official
xml2rfc tool SHALL update the tool to support the protocol field
element and to consult the IANA database when being used to produce
Real_RFCs (or Real_IDs). Upon the adoption of this proposal,
document authors will be required to transmit the raw XML input file
for the xml2rfc tool to the RFC Editor when the document is approved
for publication.

18. Security Considerations

The fact that the IETF will not undertake to ensure that the
purchasing organization has the right to use the name they choose to
use can lead to mischief. For example, a Microsoft competitor could
purchase the right to name the IPv4 Header Security Flag [RFC3514]
"the Microsoft Evil bit".

19. Conclusion

The discussion above has introduced the concept of branding IETF
protocols and the associated implications. Clearly there are non-
trivial costs to starting up and maintaining such a revenue stream.
However, advertising has a long and distinguished history of
supporting valuable community services such as free broadcast
television and Google.

As branded protocols become established, new protocols will be
developed with names conducive to branding. In fact, licensees may
initiate new IETF work just to see an appropriate field established.
So, besides the economic benefits to the IETF, this initiative may in
fact help ensure the IETF is never without work and, thus, self-
sustaining and self-perpetuating.

20. References

20.1. Normative References

   [RFC2233] Postel, J. and J. Reynolds, "Instructions to RFC Authors",
              RFC 2223, October 1997.

20.2. Informative References

   [BUDGET]   IETF 2008 budget,
              <http://iaoc.ietf.org/documents/2008_Budget_Final.pdf>.

   [EKLOR]   Eklor, M and A. Launander, "Open outcry auctions with
              secret reserve prices: an empirical application to
              executive auctions of tenant owner's apartments in
              Sweden", Journal of Econometrics, Volume 114, Issue 2,
              June 2003, pages 243-260.

   [KOVENOCK] Kovenock, D. & de Vries, C.G., 1995. "The All-Pay Auction
              with Complete Information", UFAE and IAE Working Papers
              311.95, Unitat de Fonaments de l'Analisi Economica (UAB)
              and Institut d'Analisi Economica (CSIC), revised.

   [MILGROM] Milgrom, P., "Auctions and Bidding: A Primer", Journal of
              Economic Perspectives, American Economic Association, vol.
              3(3), pages 3-22, Summer 1989.

   [PROTREG] IANA Protocol Registries,
              <http://www.iana.org/protocols/>.

   [RFC2119] Bradner, S., "Key words for use in RFCs to Indicate
              Requirement Levels", BCP 14, RFC 2119, March 1997.

   [RFC3514] Bellovin, S., "The Security Flag in the IPv4 Header," RFC
              3514, 1 April 2003.

   [RFC3629] Yergeau, F., "UTF-8, a transformation format of ISO
              10646", STD 63, RFC 3629, November 2003.

   [UDRP]   ICANN, "Uniform Domain-Name Dispute-Resolution Policy",
              <http://www.icann.org/udrp/udrp.htm>.

   [XML2RFC] "A handy little tool", <http://xml.resource.org/>.

21. Acknowledgments

   Craig Milo Rogers receives credit for the idea which lead to this
   proposal. Allison Mankin contributed to some early discussions of
   the issues associated with naming rights. Also, thanks to David
   Parkes for his advice on types of auctions.

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