

Network Working Group
Request for Comments: 2957
Category: Informational

L. Daigle
Thinking Cat Enterprises
P. Faltstrom
Cisco Systems Inc.
October 2000

The application/whoispp-query Content-Type

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.

Copyright Notice

Copyright (C) The Internet Society (2000). All Rights Reserved.

Abstract

This document defines the expression of Whois++ protocol (RFC 1835) queries within MIME (Multipurpose Internet Mail Extensions) (RFC 2046) media types. The intention of this document, in conjunction with RFC 2958 is to enable MIME-enabled mail software, and other systems using Internet media types, to carry out Whois++ transactions.

1. MIME Registration Information

To: iana@isi.edu
Subject: Registration of MIME media type application/whoispp-query

MIME Type name: Application

MIME subtype name: whoispp-query

Required parameters: none

Optional parameters: none

Encoding considerations: Any valid MIME encodings may be used

Security considerations: This content-type contains purely descriptive information (i.e., no directives). There are security considerations with regards to the appropriateness (privacy) of information provided through the use of this content-type, and the authenticity of the information so-provided. This content-type

provides no native mechanisms for authentication.

Published specification: this document

Person & email address to contact for further information:

Leslie L. Daigle
leslie@thinkingcat.com

Intended usage: common

2. whoispp-query Syntax

The following grammar, which uses BNF-like notation as defined in [RFC2234] defines the set of acceptable input to a Whois++ server. As such, it describes the expected structure of a whoispp-query media type object.

N.B.: As outlined in the ABNF definition, rule names and string literals are in the US-ASCII character set, and are case-insensitive.

```
whois-command  = ( system-command / terms [ ":" globalcnstrnts ] )
                  nl

system-command = "constraints" / "describe" / "commands" /
                  "polled-by" / "polled-for" / "version" / "list" /
                  "show" [ 1*sp bytestring ] / "help" [ 1*sp
                  bytestring ] / "?" [ bytestring ]

terms          = and-expr *( "or" and-expr )

and-expr       = not-expr *( "and" not-expr )

not-expr       = [ "not" ] ( term / ( "(" terms ")" ) )

term           = ( generalterm / specificterm / combinedterm )
                  localcnstrnts

generalterm    = bytestring

specificterm   = specificname "=" bytestring

specificname    = "handle" / "value" / "template"

combinedterm   = attributename "=" bytestring

globalcnstrnts = globalcnstrnt *( ";" globalcnstrnt )
```

```

globalcnstrnt  =  "format" "=" format / "maxfull" "=" 1*digit /
                  "maxhits" "=" 1*digit / "case" "=" casevalue /
                  "search" "=" searchvalue / opt-globalcnst

opt-globalcnst  =  "authenticate" "=" auth-method / "language" "="
                  language / "incharset" "=" charset /
                  "outcharset" "=" charset / "ignore" "="
                  attriblist / "include" "=" attriblist

localcnstrnts   =  0*("; localcnstrnt)

localcnstrnt    =  "case" "=" casevalue / "search" "=" searchvalue

format          =  "full" / "abridged" / "handle" / "summary" /
                  "server-to-ask"

auth-method     =  bytestring

language        =  <The language code defined in RFC1766 [ALVE95]>

charset         =  "us-ascii" / "iso-8859-1" / "iso-8859-2" / "iso-
                  8859-3" / "iso-8859-4" / "iso-8859-5" / "iso-
                  8859-6" / "iso-8859-7" / "iso-8859-8" / "iso-
                  8859-9" / "iso-8859-10" / "UNICODE-1-1-UTF-8" /
                  "UNICODE-2-0-UTF-8" "UTF-8"

                  ;"UTF-8" is as defined in [RFC2279]. This is
                  ;the character set label that should be used
                  ;for UTF encoded information; the labels
                  ;"UNICODE-2-0-UTF-8" and "UNICODE-1-1-UTF-8"
                  ;are retained primarily for compatibility with
                  ;older Whois++ servers (and as outlined in
                  ;[RFC2279]).

searchvalue     =  "exact" / "substring" / "regex" / "fuzzy" /
                  "lstring"

casevalue       =  "ignore" / "consider"

bytestring      =  0*charbyte

attributename   =  1*attrbyte

attriblist      =  attributename 0*("," attributename)

charbyte        =  "\" specialbyte / normalbyte

normalbyte      =  <%d33-255, except specialbyte>

```

```

attrbyte      =  <%d33-127 except specialbyte> /
                  "\" <specialbyte except
                  ":" " " tab nl>

specialbyte    =  " " / tab / "=" / "," / ":" / ";" / "\" /
                  "*" / "." / "(" / ")" /
                  "[" / "]" / "^" /
                  "$" / "!" / "?"

tab            =  %d09
sp             =  %d32          ; space

digit         =  "0" / "1" / "2" / "3" / "4" /
                  "5" / "6" / "7" / "8" /
                  "9"

nl            =  %d13 %d10      ; CR LF

```

NOTE: Blanks that are significant to a query must be escaped. The following characters, when significant to the query, may be preceded and/or followed by a single blank:

: ; , () = !

3. Security Considerations

Security issues are discussed in section 1.

4. References

- [ALVE95] Alvestrand H., "Tags for the Identification of Languages", RFC 1766, March 1995.
- [RFC2234] Crocker, D. and P. Overell, "Augmented BNF for Syntax Specifications: ABNF", RFC 2234, November 1997.
- [RFC2958] Daigle, L. and P. Faltstrom, "The application/whoispp-response Content-type", RFC 2958, October 2000.
- [RFC1835] Deutsch, P., Schoultz, R., Faltstrom, P. and C. Weider, "Architecture of the WHOIS++ service", RFC 1835, August 1995.
- [RFC2046] Freed, N. and N. Borenstein, "Multipurpose Internet Mail Extensions (MIME) Part Two: Media Types", RFC 2046, November 1996.

- [HARR85] Harrenstein K., Stahl M. and E. Feinler, "NICNAME/WHOIS", RFC 954, October 1985.
- [POST82] Postel J., "Simple Mail Transfer Protocol", STD 10, RFC 821, August 1982.
- [IIIR] Weider C. and P. Deutsch, "A Vision of an Integrated Internet Information Service", RFC 1727, December 1994.
- [WINDX] Weider, C., Fullton, J. and S. Spero, "Architecture of the Whois++ Index Service", RFC 1913, February 1996.
- [RFC2279] Yergeau F., " UTF-8, a transformation format of ISO 10646", RFC 2279, January 1998.

5. Authors' Addresses

Leslie L. Daigle
Thinking Cat Enterprises

Email: leslie@thinkingcat.com

Patrik Faltstrom
Cisco Systems Inc
170 W Tasman Drive SJ-13/2
San Jose CA 95134
USA

EMail: paf@cisco.com
URL: <http://www.cisco.com>

6. Full Copyright Statement

Copyright (C) The Internet Society (2000). All Rights Reserved.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this paragraph are included on all such copies and derivative works. However, this document itself may not be modified in any way, such as by removing the copyright notice or references to the Internet Society or other Internet organizations, except as needed for the purpose of developing Internet standards in which case the procedures for copyrights defined in the Internet Standards process must be followed, or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by the Internet Society or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and THE INTERNET SOCIETY AND THE INTERNET ENGINEERING TASK FORCE DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.

