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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.

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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

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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" "=" characteraset /
"outcharset" "=" characteraset / "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]>

characteraset = "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.
- [IIIIR] 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.

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