

Network Working Group  
Request for Comments: 2958  
Category: Informational

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

## The application/whoispp-response Content-type

### Status of this Memo

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### Abstract

This document defines the expression of Whois++ protocol (RFC1835) responses within MIME (Multipurpose Internet Mail Extensions) (RFC2046) media types. The intention of this document, in conjunction with RFC 2957 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-response

MIME Type name: Application

MIME subtype name: whoispp-response

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-response Syntax

The following grammar, which uses ABNF-like notation as defined in [RFC2234], defines a subset of responses expected from a Whois++ server upon receipt of a valid Whois++ query. As such, it describes the expected structure of a whoispp-response 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.

```
server           =  goodmessage mnl output mnl endmessage nl
                  /  badmessage nl endmessage nl

output           =  full / abridged / summary / handle

full             =  0*(full-record / server-to-ask)

abridged         =  0*(abridged-record / server-to-ask)

summary         =  summary-record

handle           =  0*(handle-record / server-to-ask)

full-record      =  "# FULL " template serverhandle localhandle
                  system-nl
                  1*(fulldata system-nl)
                  "# END" system-nl

abridged-record =  "# ABRIDGED " template serverhandle localhandle
                  system-nl
                  abridgeddata
                  "# END" system-nl
```

```
summary-record = "# SUMMARY " serverhandle system-nl
                 summarydata
                 "# END" system-nl

handle-record  = "# HANDLE " template serverhandle localhandle
                 system-nl

server-to-ask   = "# SERVER-TO-ASK " serverhandle system-nl
                 server-to-askdata
                 "# END" system-nl

fulldata       = " " attributename ": " attributevalue

abridgeddata    = " " 0*( attributevalue / tab )

summarydata     = " Matches: " number system-nl
                 [" Referrals: " number system-nl]
                 " Templates: " template 0*( system-nl "-"
                                           template)

server-to-ask-data = " Server-Handle:" serverhandle system-nl
                    " Host-Name: " hostname system-nl
                    " Host-Port: " number system-nl
                    [" Protocol: " prot system-nl]
                    0*( " " labelstring ": " labelstring system-nl)

attributename  = 1*attrbyte

attrbyte       = <%d33-127 except specialbyte>

attributevalue = longstring

template       = labelstring

serverhandle   = labelstring

localhandle    = labelstring

hostname       = labelstring

prot           = labelstring

longstring     = bytestring 0*( nl ( "+" / "-" ) bytestring )

bytestring     = 0*charbyte

labelstring    = 0*restrictedbyte
```

```
restrictedbyte = <%d32-%d255 except specialbyte>
charbyte       = <%d32-%d255 except nl>
specialbyte    = ":" / " " / tab / nl
tab            = %d09
mnl           = 1*system-nl
system-nl      = nl [ 1*(message nl) ]
nl            = %d13 %d10
message        = [1*( messagestart "-" bytestring nl)]
                messagestart " " bytestring nl
messagestart   = "% " digit digit digit
goodmessage    = [1*( goodmessagestart "-" bytestring nl)]
                goodmessagestart " " bytestring nl
goodmessagestart = "% 200"
messagestart   = "% " digit digit digit
badmessage     = [1*( badmessagestart "-" bytestring nl)]
                badmessagestart " " bytestring nl
badmessagestart = "% 5" digit digit
endmessage     = endmessageclose
endmessageclose = [endmessagestart " " bytestring nl]
                byemessage
endmessagestart = "% 226"
byemessage     = byemessagestart " " bytestring nl
endmessagestart = "% 203"
number         = 1*( digit )
digit          = "0" / "1" / "2" / "3" / "4" / "5" / "6" / "7"
                / "8" / "9"
```

### 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.
- [RFC2957] Daigle, L. and P. Faltstrom, "The application/whoispp-query Content-Type", RFC 2957, October 2000.
- [RFC1835] Deutsch, P., Schoultz R., Faltstrom P. and C. Weider, "Architecture of the WHOIS++ service", RFC 1835, August 1995.
- [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.

### 5. Authors' Addresses

Leslie L. Daigle  
Thinking Cat Enterprises

Email: [leslie@thinkingcat.com](mailto:leslie@thinkingcat.com)

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

EMail: [paf@cisco.com](mailto:paf@cisco.com)  
URL: <http://www.cisco.com>

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## Acknowledgement

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

