



APPENDIX **A**

RADIUS Attributes

This appendix lists the RADIUS attributes that the Cisco 10000 series router supports in Cisco IOS Release 12.2(4)BZ1 and later releases. The following conventions are used in the tables that follow:

- Supported and tested—The attribute has been tested and the Cisco 10000 series router supports it.
- Not Supported—The Cisco 10000 series router does not support the attribute.
- Not Applicable—The attribute does not apply to the Cisco 10000 series router.



Note

For more information, see the “RADIUS Attributes” appendix in the *Cisco IOS Security Configuration Guide, Release 12.2*.

RADIUS IETF Attributes

Table A-1 RADIUS IETF Attributes

| Number | IETF Attribute | Status |
|--------|-------------------|---|
| 1 | User-Name | Supported and tested |
| 2 | User-Password | Supported and tested |
| 3 | CHAP-Password | Supported and tested |
| 4 | NAS-IP Address | Supported and tested |
| 5 | NAS-Port | Supported and tested |
| 6 | Service-Type | Supported and tested |
| 7 | Framed-Protocol | Supported and tested |
| 8 | Framed-IP-Address | Supported and tested |
| 9 | Framed-IP-Netmask | Supported and tested |
| 10 | Framed-Routing | Router receives this attribute and properly handles a value of 0:None. Unclear if the system properly handles a value of 3:send and listen. |
| 11 | Filter-ID | Supported and tested |
| 12 | Framed-MTU | Supported and tested |

Table A-1 RADIUS IETF Attributes (continued)

| Number | IETF Attribute | Status |
|--------|--------------------------|---|
| 13 | Framed-Compression | Cisco 10000 series router ignores this attribute. |
| 14 | Login-IP-Host | Not Applicable |
| 15 | Login-Service | Not Applicable |
| 16 | Login-TCP-Port | Not Applicable |
| 18 | Reply-Message | Supported and tested |
| 19 | Callback-Number | Not Applicable |
| 20 | Callback-ID | Not Applicable |
| 22 | Framed-Route | Supported and tested |
| 23 | Framed-IPX-Network | Not Applicable |
| 24 | State | Supported but not tested |
| 25 | Class | Supported and tested |
| 26 | Vendor-Specific | Supported and tested for Cisco VSA |
| 27 | Session-Timeout | Supported and tested |
| 28 | Idle-Timeout | Supported and tested |
| 29 | Termination-Action | Typically not used in DSL environment |
| 30 | Called-Station-ID | Typically not used in DSL environment |
| 31 | Calling-Station-ID | Supported and tested |
| 32 | NAS-Identifier | Supported and tested |
| 33 | Proxy-Stat | Not Applicable |
| 34 | Login-LAT-Service | Not Applicable |
| 35 | Login-LAT-Node | Not Applicable |
| 36 | Login-LAT-Group | Not Applicable |
| 37 | Framed-AppleTalk-Link | Not Applicable |
| 38 | Framed-AppleTalk-Network | Not Applicable |
| 39 | Framed-AppleTalk-Zone | Not Applicable |
| 40 | Acct-Status-Type | Supported and tested |
| 41 | Acct-Delay-Time | Supported and tested |
| 42 | Acct-Input-Octets | Supported and tested |
| 43 | Acct-Output-Octets | Supported and tested |
| 44 | Acct-Session-Id | Supported and tested |
| 45 | Acct-Authentic | Supported and tested |
| 46 | Acct-Session-Time | Supported and tested |
| 47 | Acct-Input-Packets | Supported and tested |
| 48 | Acct-Output-Packets | Supported and tested |
| 49 | Acct-Terminate-Cause | Supported and tested |

Table A-1 RADIUS IETF Attributes (continued)

| Number | IETF Attribute | Status |
|--------|-------------------------|---|
| 50 | Acct-Multi-Session-Id | Multilink is not supported. |
| 51 | Acct-Link-Count | Multilink is not supported. |
| 52 | Acct-Input-Gigawords | Supported and tested |
| 53 | Acct-Output-Gigawords | Supported and tested |
| 60 | CHAP-Challenge | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 61 | NAS-Port-Type | Supported and tested |
| 62 | Port-Limit | Not Applicable |
| 63 | Login-LAT-Port | Not Applicable |
| 64 | Tunnel-Type | Supported on the Cisco 10000 series router but the router only supports L2TP tunnels. |
| 65 | Tunnel-Medium-Type | Supported on the Cisco 10000 series router but IP is the only medium the router currently supports. |
| 66 | Tunnel-Client-Endpoint | Supported and tested in accounting. |
| 67 | Tunnel-Server-Endpoint | Supported and tested in accounting. |
| 68 | Acct-Tunnel-Connection | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 69 | Tunnel-Password | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 70 | ARAP-Password | Not Supported |
| 71 | ARAP-Features | Not Supported |
| 72 | ARAP-Zone-Access | Not Supported |
| 73 | ARAP-Security | Not Supported |
| 74 | ARAP-Security-Data | Not Supported |
| 75 | Password-Retry | Not Supported |
| 76 | Prompt | Typically not used in DSL environment |
| 77 | Connect-Info | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 78 | Configuration-Token | Not Supported |
| 79 | EAP-Message | Not Supported |
| 81 | Tunnel-Private-Group-ID | Not Supported |
| 82 | Tunnel-Assignment-ID | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 83 | Tunnel-Preference | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 84 | ARAP-Challenge-Response | Not Supported |

Table A-1 RADIUS IETF Attributes (continued)

| Number | IETF Attribute | Status |
|--------|--------------------------|---|
| 85 | Acct-Interim-Interval | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 86 | Acct-Tunnel-Packets-Lost | Not Supported |
| 87 | NAS-Port-ID | Supported and tested |
| 88 | Framed-Pool | Not Supported |
| 90 | Tunnel-Client-Auth-Id | Not Supported |
| 91 | Tunnel-Server-Auth-ID | Not Supported |
| 200 | IETF-Token-Immediate | Not Applicable |

Vendor-Proprietary RADIUS Attributes

Table A-2 Vendor-Proprietary RADIUS Attributes

| Number | Vendor-Proprietary Attribute | Status |
|--------|------------------------------|---------------------------------------|
| 17 | Change-Password | Typically not used in DSL environment |
| 21 | Password-Expiration | Typically not used in DSL environment |
| 68 | Tunnel-ID | Supported and tested in accounting |
| 108 | My-Endpoint-Disc-Alias | Not Applicable |
| 109 | My-Name-Alias | Not Applicable |
| 110 | Remote-FW | Not Applicable |
| 111 | Multicast-GLeave-Delay | Not Applicable |
| 112 | CBCP-Enable | Not Applicable |
| 113 | CBCP-Mode | Not Applicable |
| 114 | CBCP-Delay | Not Applicable |
| 115 | CBCP-Trunk-Group | Not Applicable |
| 116 | Appletalk-Route | Not Applicable |
| 117 | Appletalk-Peer-Mode | Not Applicable |
| 118 | Route-Appletalk | Not Applicable |
| 119 | FCP-Parameter | Not Applicable |
| 120 | Modem-PortNo | Not Applicable |
| 121 | Modem-SlotNo | Not Applicable |
| 122 | Modem-ShelfNo | Not Applicable |
| 123 | Call-Attempt-Limit | Not Applicable |
| 124 | Call-Block-Duration | Not Applicable |
| 125 | Maximum-Call-Duration | Not Applicable |
| 126 | Router-Preference | Not Applicable |

Table A-2 Vendor-Proprietary RADIUS Attributes (continued)

| Number | Vendor-Proprietary Attribute | Status |
|--------|------------------------------|---|
| 127 | Tunneling-Protocol | Not Applicable |
| 128 | Shared-Profile-Enable | Not Applicable |
| 129 | Primary-Home-Agent | Not Applicable |
| 130 | Secondary-Home-Agent | Not Applicable |
| 131 | Dialout-Allowed | Not Applicable |
| 133 | BACP-Enable | Not Applicable |
| 134 | DHCP-Maximum-Leases | Not Applicable |
| 135 | Primary-DNS-Server | Supported and tested |
| 136 | Secondary-DNS-Server | Supported and tested |
| 137 | Client-Assign-DNS | Not Applicable |
| 138 | User-Acct-Type | Not Applicable |
| 139 | User-Acct-Host | Not Applicable |
| 140 | User-Acct-Port | Not Applicable |
| 141 | User-Acct-Key | Not Applicable |
| 142 | User-Acct-Base | Not Applicable |
| 143 | User-Acct-Time | Not Applicable |
| 144 | Assign-IP-Client | Not Applicable |
| 145 | Assign-IP-Server | Not Applicable |
| 146 | Assign-IP-Global-Pool | Not Applicable |
| 147 | DHCP-Reply | Not Applicable |
| 148 | DHCP-Pool-Number | Not Applicable |
| 149 | Expect-Callback | Not Applicable |
| 150 | Event-Type | Not Applicable |
| 151 | Session-Svr-Key | Supported and tested. Enables the router to match a user session with a client request to disconnect the session. |
| 152 | Multicast-Rate-Limit | Not Applicable |
| 153 | IF-Netmask | Not Applicable |
| 154 | Remote-Addr | Not Applicable |
| 155 | Multicast-Client | Not Applicable |
| 156 | FR-Circuit-Name | Not Applicable |
| 157 | FR-LinkUp | Not Applicable |
| 158 | FR-Nailed-Grp | Not Applicable |
| 159 | FR-Type | Not Applicable |
| 160 | FR-Link-Mgt | Not Applicable |
| 161 | FR-N391 | Not Applicable |
| 162 | FR-DCE-N392 | Not Applicable |

Table A-2 Vendor-Proprietary RADIUS Attributes (continued)

| Number | Vendor-Proprietary Attribute | Status |
|--------|------------------------------|---------------------------------------|
| 163 | FR-DTE-N392 | Not Applicable |
| 164 | FR-DCE-N393 | Not Applicable |
| 165 | FR-DTE-N393 | Not Applicable |
| 166 | FR-T391 | Not Applicable |
| 167 | FR-T392 | Not Applicable |
| 168 | Bridge-Address | Not Applicable |
| 169 | TS-Idle-Limit | Not Applicable |
| 170 | TS-Idle-Mode | Not Applicable |
| 171 | DBA-Monitor | Not Applicable |
| 172 | Base-Channel-Count | Not Applicable |
| 173 | Minimum-Channels | Not Applicable |
| 174 | IPX-Route | Not Applicable |
| 175 | FT1-Caller | Not Applicable |
| 176 | Backup | Not Applicable |
| 177 | Call-Type | Not Applicable |
| 178 | Group | Not Applicable |
| 179 | FR-DLCI | Not Applicable |
| 180 | FR-Profile-Name | Not Applicable |
| 181 | Ara-PW | Not Applicable |
| 182 | IPX-Node-Addr | Not Applicable |
| 183 | Home-Agent-IP-Addr | Not Applicable |
| 184 | Home-Agent-Password | Not Applicable |
| 185 | Home-Network-Name | Not Applicable |
| 186 | Home-Agent-UDP-Port | Not Applicable |
| 187 | Multilink-ID | Multilink is not supported. |
| 188 | Num-In-Multilink | Multilink is not supported. |
| 189 | First-Dest | Not Applicable |
| 190 | Pre-Input-Octets | Not Supported |
| 191 | Pre-Output-Octets | Not Supported |
| 192 | Pre-Input-Packets | Not Supported |
| 193 | Pre-Output-Packets | Not Supported |
| 194 | Maximum-Time | Typically not used in DSL environment |
| 195 | Disconnect-Cause | Supported and tested |
| 196 | Connect-Progress | Supported and tested |
| 197 | Data-Rate | Typically not used in DSL environment |
| 198 | PreSession-Time | Typically not used in DSL environment |

Table A-2 Vendor-Proprietary RADIUS Attributes (continued)

| Number | Vendor-Proprietary Attribute | Status |
|---------------|-------------------------------------|---|
| 199 | Token-Idle | Not Applicable |
| 201 | Require-Auth | Not Applicable |
| 202 | Number-Sessions | Not Applicable |
| 203 | Authen-Alias | Not Applicable |
| 204 | Token-Expiry | Not Applicable |
| 205 | Menu-Selector | Not Applicable |
| 206 | Menu-Item | Not Applicable |
| 207 | PW-Warntime | Not Supported |
| 208 | PW-Lifetime | Typically not used in DSL environment |
| 209 | IP-Direct | Not Applicable |
| 210 | PPP-VJ-Slot-Comp | Not Supported |
| 211 | PPP-VJ-1172 | Not Supported |
| 212 | PPP-Async-Map | Not Applicable |
| 213 | Third-Prompt | Not Applicable |
| 214 | Send-Secret | Typically not used in DSL environment |
| 215 | Receive-Secret | Not Supported |
| 216 | IPX-Peer-Mode | Not Applicable |
| 217 | IP-Pool-Definition | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 218 | Assign-IP-Pool | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 219 | FR-Direct | Not Applicable |
| 220 | FR-Direct-Profile | Not Applicable |
| 221 | FR-Direct-DLCI | Not Applicable |
| 222 | Handle-IPX | Not Applicable |
| 223 | Netware-Timeout | Not Applicable |
| 224 | IPX-Alias | Not Applicable |
| 225 | Metric | Not Applicable |
| 226 | PRI-Number-Type | Not Applicable |
| 227 | Dial-Number | Not Applicable |
| 228 | Route-IP | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 229 | Route-IPX | Not Applicable |
| 230 | Bridge | Not Applicable |
| 231 | Send-Auth | Not Applicable |
| 232 | Send-Passwd | Not Applicable |
| 233 | Link-Compression | Not Supported |

Table A-2 Vendor-Proprietary RADIUS Attributes (continued)

| Number | Vendor-Proprietary Attribute | Status |
|--------|------------------------------|--|
| 234 | Target-Util | Not Supported |
| 235 | Maximum-Channels | Not Supported |
| 236 | Inc-Channel-Count | Not Supported |
| 237 | Dec-Channel-Count | Not Supported |
| 238 | Seconds-of-History | Not Supported |
| 239 | History-Weigh-type | Not Supported |
| 240 | Add-Seconds | Not Supported |
| 241 | Remove-Seconds | Not Supported |
| 242 | Data-Filter | Supported and tested |
| 243 | Call-Filter | Not Supported |
| 244 | Idle-Limit | Not Supported |
| 245 | Preempt-Limit | Not Applicable |
| 246 | Callback | Not Applicable |
| 247 | Data-Svc | Not Applicable |
| 248 | Force-56 | Not Applicable |
| 249 | Billing Number | Not Applicable |
| 250 | Call-By-Call | Not Applicable |
| 251 | Transit-Number | Not Applicable |
| 252 | Host-Info | Not Applicable |
| 253 | PPP-Address | Not Applicable |
| 254 | MPP-Idle-Percent | Not Applicable |
| 255 | Xmit-Rate | Typically not used in DSL environment. |

Vendor-Specific RADIUS IETF Attributes

Table A-3 Vendor-Specific RADIUS IETF Attributes

| Number | Vendor-Specific Company Code | Sub-Type Number | Attribute | Status |
|---------------------------|------------------------------|-----------------|----------------------|---|
| MS-CHAP Attributes | | | | |
| 26 | 311 | 1 | MSCHAP-Response | Not Supported |
| 26 | 311 | 11 | MSCHAP-Challenge | Not Supported |
| VPDN Attributes | | | | |
| 26 | 9 | 1 | 12tp-busy-disconnect | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |

Table A-3 Vendor-Specific RADIUS IETF Attributes (continued)

| Number | Vendor-Specific Company Code | Sub-Type Number | Attribute | Status |
|---|------------------------------|-----------------|---------------------------|---|
| 26 | 9 | 1 | 12tp-cm-local-window-size | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-drop-out-of-order | Not Supported |
| 26 | 9 | 1 | 12tp-hello-interval | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-hidden-avp | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-nosession-timeout | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-tos-reflect | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-tunnel-authen | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-tunnel-password | Supported in Cisco IOS but not tested on the Cisco 10000 series router. |
| 26 | 9 | 1 | 12tp-udp-checksum | Not Supported |
| Store and Forward Fax Attributes | | | | |
| 26 | 9 | 3 | Fax-Account-Id-Origin | Not Applicable |
| 26 | 9 | 4 | Fax-Msg-Id= | Not Applicable |
| 26 | 9 | 5 | Fax-Pages | Not Applicable |
| 26 | 9 | 6 | Fax-Coverpage-Flag | Not Applicable |
| 26 | 9 | 7 | Fax-Modem-Time | Not Applicable |
| 26 | 9 | 8 | Fax-Connect-Speed | Not Applicable |
| 26 | 9 | 9 | Fax-Recipient-Count | Not Applicable |
| 26 | 9 | 10 | Fax-Process-Abort-Flag | Not Applicable |
| 26 | 9 | 11 | Fax-Dsn-Address | Not Applicable |
| 26 | 9 | 12 | Fax-Dsn-Flag | Not Applicable |
| 26 | 9 | 13 | Fax-Mdn-Address | Not Applicable |
| 26 | 9 | 14 | Fax-Mdn-Flag | Not Applicable |
| 26 | 9 | 15 | Fax-Auth-Status | Not Applicable |
| 26 | 9 | 16 | Email-Server-Address | Not Applicable |
| 26 | 9 | 17 | Email-Server-Ack-Flag | Not Applicable |

Table A-3 Vendor-Specific RADIUS IETF Attributes (continued)

| Number | Vendor-Specific Company Code | Sub-Type Number | Attribute | Status |
|---------------------------------------|------------------------------|-----------------|-----------------------|---|
| 26 | 9 | 18 | Gateway-Id | Not Applicable |
| 26 | 9 | 19 | Call-Type | Not Applicable |
| 26 | 9 | 20 | Port-Used | Not Applicable |
| 26 | 9 | 21 | Abort-Cause | Not Applicable |
| H323 Attributes | | | | |
| 26 | 9 | 23 | h323-remote-address | Not Applicable |
| 26 | 9 | 24 | h323-conf-id | Not Applicable |
| 26 | 9 | 25 | h323-setup-time | Not Applicable |
| 26 | 9 | 26 | h323-call-origin | Not Applicable |
| 26 | 9 | 27 | h323-call-type | Not Applicable |
| 26 | 9 | 28 | h323-connect-time | Not Applicable |
| 26 | 9 | 29 | h323-disconnect-time | Not Applicable |
| 26 | 9 | 30 | h323-disconnect-cause | Not Applicable |
| 26 | 9 | 31 | h323-voice-quality | Not Applicable |
| 26 | 9 | 33 | h323-gw-id | Not Applicable |
| Large Scale Dialout Attributes | | | | |
| 26 | 9 | 1 | callback-dialstring | Not Applicable |
| 26 | 9 | 1 | data-service | Not Applicable |
| 26 | 9 | 1 | dial-number | Not Applicable |
| 26 | 9 | 1 | force-56 | Not Applicable |
| 26 | 9 | 1 | map-class | Not Applicable |
| 26 | 9 | 1 | send-auth | Not Applicable |
| Miscellaneous Attributes | | | | |
| 26 | 9 | 2 | Cisco-NAS-Port | Supported and tested |
| 26 | 9 | 1 | min-links | Multilink is not supported. |
| 26 | 9 | 1 | proxyacl#<n> | Not Supported |
| 26 | 9 | 1 | spi | Not Applicable |
| 26 | 9 | 37 | Cisco-Policy-Up | Supported and tested in Cisco IOS Release 12.2(15)BZ. |
| 26 | 9 | 38 | Cisco-Policy-Down | Supported and tested in Cisco IOS Release 12.2(15)BZ. |
| 26 | 9 | 1 | atm:Peak-Cell-Rate= | Supported and tested in Cisco IOS Release 12.2(15)BX. |

Table A-3 Vendor-Specific RADIUS IETF Attributes (continued)

| Number | Vendor-Specific Company Code | Sub-Type Number | Attribute | Status |
|---------------|-------------------------------------|------------------------|----------------------------|--|
| 26 | 9 | 1 | atm:Sustainable-Cell-Rate= | Supported and tested in Cisco IOS Release 12.2(15)BX. |
| 26 | 9 | 1 | ip:vrf-id= | Supported and tested in Cisco IOS Release 12.2(16)BX1. |
| 26 | 9 | 1 | ip:ip-unnumbered= | Supported and tested in Cisco IOS Release 12.2(16)BX1. |

