



RADIUS Vendor-Proprietary Attributes

The IETF draft standard for RADIUS specifies a method for communicating vendor-proprietary information between the network access server and the RADIUS server. However, some vendors have extended the RADIUS attribute set for specific applications. This document provides Cisco IOS XE support information for these vendor-proprietary RADIUS attributes.

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Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see [Bug Search Tool](#) and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Supported Vendor-Proprietary RADIUS Attributes

The table below lists Cisco-supported vendor-proprietary RADIUS attributes and the Cisco IOS XE release in which they are implemented. In cases where the attribute has a security server-specific format, the format is specified. Refer to [Vendor-Proprietary RADIUS Attributes](#) table for a list of descriptions.

Table 1: Supported Vendor-Proprietary RADIUS Attributes

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 17 | Change-Password | yes |
| 21 | Password-Expiration | yes |
| 68 | Tunnel-ID | yes |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 108 | My-Endpoint-Disc-Alias | no |
| 109 | My-Name-Alias | no |
| 110 | Remote-FW | no |
| 111 | Multicast-GLeave-Delay | no |
| 112 | CBCP-Enable | no |
| 113 | CBCP-Mode | no |
| 114 | CBCP-Delay | no |
| 115 | CBCP-Trunk-Group | no |
| 116 | Appletalk-Route | no |
| 117 | Appletalk-Peer-Mode | no |
| 118 | Route-Appletalk | no |
| 119 | FCP-Parameter | no |
| 120 | Modem-PortNo | no |
| 121 | Modem-SlotNo | no |
| 122 | Modem-ShelfNo | no |
| 123 | Call-Attempt-Limit | no |
| 124 | Call-Block-Duration | no |
| 125 | Maximum-Call-Duration | no |
| 126 | Router-Preference | no |
| 127 | Tunneling-Protocol | no |
| 128 | Shared-Profile-Enable | no |
| 129 | Primary-Home-Agent | no |
| 130 | Secondary-Home-Agent | no |
| 131 | Dialout-Allowed | no |
| 133 | BACP-Enable | no |
| 134 | DHCP-Maximum-Leases | no |
| 135 | Primary-DNS-Server | yes |
| 136 | Secondary-DNS-Server | yes |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 137 | Ascend-Client-Assign-DNS | no |
| 138 | User-Acct-Type | no |
| 139 | User-Acct-Host | no |
| 140 | User-Acct-Port | no |
| 141 | User-Acct-Key | no |
| 142 | User-Acct-Base | no |
| 143 | User-Acct-Time | no |
| 144 | Assign-IP-Client | no |
| 145 | Assign-IP-Server | no |
| 146 | Assign-IP-Global-Pool | no |
| 147 | DHCP-Reply | no |
| 148 | DHCP-Pool-Number | no |
| 149 | Expect-Callback | no |
| 150 | Event-Type | no |
| 151 | Ascend-Session-Svr-Key | yes |
| 152 | Ascend-Multicast-Rate-Limit | yes |
| 153 | IF-Netmask | no |
| 154 | h323-Remote-Address | no |
| 155 | Ascend-Multicast-Client | yes |
| 156 | FR-Circuit-Name | no |
| 157 | FR-LinkUp | no |
| 158 | FR-Nailed-Grp | no |
| 159 | FR-Type | no |
| 160 | FR-Link-Mgt | no |
| 161 | FR-N391 | no |
| 162 | FR-DCE-N392 | no |
| 163 | FR-DTE-N392 | no |
| 164 | FR-DCE-N393 | no |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 165 | FR-DTE-N393 | no |
| 166 | FR-T391 | no |
| 167 | FR-T392 | no |
| 168 | Bridge-Address | no |
| 169 | TS-Idle-Limit | no |
| 170 | TS-Idle-Mode | no |
| 171 | DBA-Monitor | no |
| 172 | Base-Channel-Count | no |
| 173 | Minimum-Channels | no |
| 174 | IPX-Route | no |
| 175 | FT1-Caller | no |
| 176 | Ipssec-Backup-Gateway | yes |
| 177 | rm-Call-Type | yes |
| 178 | Group | no |
| 179 | FR-DLCI | no |
| 180 | FR-Profile-Name | no |
| 181 | Ara-PW | no |
| 182 | IPX-Node-Addr | no |
| 183 | Home-Agent-IP-Addr | no |
| 184 | Home-Agent-Password | no |
| 185 | Home-Network-Name | no |
| 186 | Home-Agent-UDP-Port | no |
| 187 | Multilink-ID | yes |
| 188 | Ascend-Num-In-Multilink | yes |
| 189 | First-Dest | no |
| 190 | Pre-Bytes-In | yes |
| 191 | Pre-Bytes-Out | yes |
| 192 | Pre-Paks-In | yes |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 193 | Pre-Paks-Out | yes |
| 194 | Maximum-Time | yes |
| 195 | Disconnect-Cause | yes |
| 196 | Connect-Progress | yes |
| 197 | Data-Rate | yes |
| 198 | PreSession-Time | yes |
| 199 | Token-Idle | no |
| 201 | Require-Auth | no |
| 202 | Number-Sessions | no |
| 203 | Authen-Alias | no |
| 204 | Token-Expiry | no |
| 205 | Menu-Selector | no |
| 206 | Menu-Item | no |
| 207 | PW-Warntime | no |
| 208 | PW-Lifetime | yes |
| 209 | IP-Direct | yes |
| 210 | PPP-VJ-Slot-Compression | yes |
| 211 | PPP-VJ-1172 | no |
| 212 | PPP-Async-Map | no |
| 213 | Third-Prompt | no |
| 214 | Send-Secret | yes |
| 215 | Receive-Secret | no |
| 216 | IPX-Peer-Mode | no |
| 217 | IP-Pool | yes |
| 218 | Static-Addr-Pool | yes |
| 219 | FR-Direct | no |
| 220 | FR-Direct-Profile | no |
| 221 | FR-Direct-DLCI | no |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 222 | Handle-IPX | no |
| 223 | Netware-Timeout | no |
| 224 | IPX-Alias | no |
| 225 | Metric | no |
| 226 | PRI-Number-Type | no |
| 227 | Dial-Number | yes |
| 228 | Route-IP | yes |
| 229 | Route-IPX | no |
| 230 | Bridge | no |
| 231 | Send-Auth | yes |
| 232 | Send-Passwd | no |
| 233 | Link-Compression | yes |
| 234 | Target-Util | yes |
| 235 | Maximum-Channels | yes |
| 236 | Inc-Channel-Count | no |
| 237 | Dec-Channel-Count | no |
| 238 | Seconds-of-History | no |
| 239 | History-Weigh-Type | no |
| 240 | Add-Seconds | no |
| 241 | Remove-Seconds | no |
| 242 | Data-Filter | yes |
| 243 | Call-Filter | no |
| 244 | Idle-Limit | yes |
| 245 | Preempt-Limit | no |
| 246 | Callback | no |
| 247 | Data-Service | yes |
| 248 | Force-56 | yes |
| 249 | Billing Number | no |

| Number | Vendor-Proprietary Attribute | IOS XE 2.1 |
|--------|------------------------------|------------|
| 250 | Call-By-Call | no |
| 251 | Transit-Number | no |
| 252 | Host-Info | no |
| 253 | PPP-Address | no |
| 254 | MPP-Idle-Percent | no |
| 255 | Xmit-Rate | yes |

Comprehensive List of Vendor-Proprietary RADIUS Attribute Descriptions

The table below lists and describes the known vendor-proprietary RADIUS attributes:

Table 2: Vendor-Proprietary RADIUS Attributes

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|--|
| 17 | Change-Password | Specifies a request to change the password of a user. |
| 21 | Password-Expiration | Specifies an expiration date for a user's password in the user's file entry. |
| 68 | Tunnel-ID | (Ascend 5) Specifies the string assigned by RADIUS for each session using CLID or DNIS tunneling. When accounting is implemented, this value is used for accounting. |
| 108 | My-Endpoint-Disc-Alias | (Ascend 5) No description available. |
| 109 | My-Name-Alias | (Ascend 5) No description available. |
| 110 | Remote-FW | (Ascend 5) No description available. |
| 111 | Multicast-GLeave-Delay | (Ascend 5) No description available. |
| 112 | CBCP-Enable | (Ascend 5) No description available. |
| 113 | CBCP-Mode | (Ascend 5) No description available. |
| 114 | CBCP-Delay | (Ascend 5) No description available. |
| 115 | CBCP-Trunk-Group | (Ascend 5) No description available. |
| 116 | Appletalk-Route | (Ascend 5) No description available. |
| 117 | Appletalk-Peer-Mode | (Ascend 5) No description available. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|--|
| 118 | Route-Appletalk | (Ascend 5) No description available. |
| 119 | FCP-Parameter | (Ascend 5) No description available. |
| 120 | Modem-PortNo | (Ascend 5) No description available. |
| 121 | Modem-SlotNo | (Ascend 5) No description available. |
| 122 | Modem-ShelfNo | (Ascend 5) No description available. |
| 123 | Call-Attempt-Limit | (Ascend 5) No description available. |
| 124 | Call-Block-Duration | (Ascend 5) No description available. |
| 125 | Maximum-Call-Duration | (Ascend 5) No description available. |
| 126 | Router-Preference | (Ascend 5) No description available. |
| 127 | Tunneling-Protocol | (Ascend 5) No description available. |
| 128 | Shared-Profile-Enable | (Ascend 5) No description available. |
| 129 | Primary-Home-Agent | (Ascend 5) No description available. |
| 130 | Secondary-Home-Agent | (Ascend 5) No description available. |
| 131 | Dialout-Allowed | (Ascend 5) No description available. |
| 133 | BACP-Enable | (Ascend 5) No description available. |
| 134 | DHCP-Maximum-Leases | (Ascend 5) No description available. |
| 135 | Primary-DNS-Server | Identifies a primary DNS server that can be requested by Microsoft PPP clients from the network access server during IPCP negotiation. |
| 136 | Secondary-DNS-Server | Identifies a secondary DNS server that can be requested by Microsoft PPP clients from the network access server during IPCP negotiation. |
| 137 | Client-Assign-DNS | No description available. |
| 138 | User-Acct-Type | No description available. |
| 139 | User-Acct-Host | No description available. |
| 140 | User-Acct-Port | No description available. |
| 141 | User-Acct-Key | No description available. |
| 142 | User-Acct-Base | No description available. |
| 143 | User-Acct-Time | No description available. |
| 144 | Assign-IP-Client | No description available. |
| 145 | Assign-IP-Server | No description available. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|---------------------------|
| 146 | Assign-IP-Global-Pool | No description available. |
| 147 | DHCP-Reply | No description available. |
| 148 | DHCP-Pool-Number | No description available. |
| 149 | Expect-Callback | No description available. |
| 150 | Event-Type | No description available. |
| 151 | Session-Svr-Key | No description available. |
| 152 | Multicast-Rate-Limit | No description available. |
| 153 | IF-Netmask | No description available. |
| 154 | Remote-Addr | No description available. |
| 155 | Multicast-Client | No description available. |
| 156 | FR-Circuit-Name | No description available. |
| 157 | FR-LinkUp | No description available. |
| 158 | FR-Nailed-Grp | No description available. |
| 159 | FR-Type | No description available. |
| 160 | FR-Link-Mgt | No description available. |
| 161 | FR-N391 | No description available. |
| 162 | FR-DCE-N392 | No description available. |
| 163 | FR-DTE-N392 | No description available. |
| 164 | FR-DCE-N393 | No description available. |
| 165 | FR-DTE-N393 | No description available. |
| 166 | FR-T391 | No description available. |
| 167 | FR-T392 | No description available. |
| 168 | Bridge-Address | No description available. |
| 169 | TS-Idle-Limit | No description available. |
| 170 | TS-Idle-Mode | No description available. |
| 171 | DBA-Monitor | No description available. |
| 172 | Base-Channel-Count | No description available. |
| 173 | Minimum-Channels | No description available. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|---|
| 174 | IPX-Route | No description available. |
| 175 | FT1-Caller | No description available. |
| 176 | Backup | No description available. |
| 177 | Call-Type | No description available. |
| 178 | Group | No description available. |
| 179 | FR-DLCI | No description available. |
| 180 | FR-Profile-Name | No description available. |
| 181 | Ara-PW | No description available. |
| 182 | IPX-Node-Addr | No description available. |
| 183 | Home-Agent-IP-Addr | Indicates the home agent's IP address (in dotted decimal format) when using Ascend Tunnel Management Protocol (ATMP). |
| 184 | Home-Agent-Password | With ATMP, specifies the password that the foreign agent uses to authenticate itself. |
| 185 | Home-Network-Name | With ATMP, indicates the name of the connection profile to which the home agent sends all packets. |
| 186 | Home-Agent-UDP-Port | Indicates the UDP port number the foreign agent uses to send ATMP messages to the home agent. |
| 187 | Multilink-ID | Reports the identification number of the multilink bundle when the session closes. This attribute applies to sessions that are part of a multilink bundle. The Multilink-ID attribute is sent in authentication-response packets. |
| 188 | Num-In-Multilink | Reports the number of sessions remaining in a multilink bundle when the session reported in an accounting-stop packet closes. This attribute applies to sessions that are part of a multilink bundle. The Num-In-Multilink attribute is sent in authentication-response packets and in some accounting-request packets. |
| 189 | First-Dest | Records the destination IP address of the first packet received after authentication. |
| 190 | Pre-Bytes-In | Records the number of input bytes before authentication. The Pre-Bytes-In attribute is sent in accounting-stop records. |
| 191 | Pre-Bytes-Out | Records the number of output bytes before authentication. The Pre-Bytes-Out attribute is sent in accounting-stop records. |
| 192 | Pre-Paks-In | Records the number of input packets before authentication. The Pre-Paks-In attribute is sent in accounting-stop records. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|--|
| 193 | Pre-Paks-Out | Records the number of output packets before authentication. The Pre-Paks-Out attribute is sent in accounting-stop records. |
| 194 | Maximum-Time | Specifies the maximum length of time (in seconds) allowed for any session. After the session reaches the time limit, its connection is dropped. |
| 195 | Disconnect-Cause | Specifies the reason a connection was taken offline. The Disconnect-Cause attribute is sent in accounting-stop records. This attribute also causes stop records to be generated without first generating start records if disconnection occurs before authentication is performed. See the Vendor-Specific Attributes (VSA) and RADIUS Disconnect-Cause Attribute Values for more information on their meanings. |
| 196 | Connect-Progress | Indicates the connection state before the connection is disconnected. |
| 197 | Data-Rate | Specifies the average number of bits per second over the course of the connection's lifetime. The Data-Rate attribute is sent in accounting-stop records. |
| 198 | PreSession-Time | Specifies the length of time, in seconds, from when a call first connects to when it completes authentication. The PreSession-Time attribute is sent in accounting-stop records. |
| 199 | Token-Idle | Indicates the maximum amount of time (in minutes) a cached token can remain alive between authentications. |
| 201 | Require-Auth | Defines whether additional authentication is required for class that has been CLID authenticated. |
| 202 | Number-Sessions | Specifies the number of active sessions (per class) reported to the RADIUS accounting server. |
| 203 | Authen-Alias | Defines the RADIUS server's login name during PPP authentication. |
| 204 | Token-Expiry | Defines the lifetime of a cached token. |
| 205 | Menu-Selector | Defines a string to be used to cue a user to input data. |
| 206 | Menu-Item | Specifies a single menu-item for a user-profile. Up to 20 menu items can be assigned per profile. |
| 207 | PW-Warntime | (Ascend 5) No description available. |
| 208 | PW-Lifetime | Enables you to specify on a per-user basis the number of days that a password is valid. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|---|
| 209 | IP-Direct | When you include this attribute in a user's file entry, a framed route is installed to the routing and bridging tables. Note Packet routing is dependent upon the entire table, not just this newly installed entry. The inclusion of this attribute does not guarantee that all packets should be sent to the specified IP address; thus, this attribute is not fully supported. These attribute limitations occur because the Cisco router cannot bypass all internal routing and bridging tables and send packets to a specified IP address. |
| 210 | PPP-VJ-Slot-Comp | Instructs the Cisco router not to use slot compression when sending VJ-compressed packets over a PPP link. |
| 211 | PPP-VJ-1172 | Instructs PPP to use the 0x0037 value for VJ compression. |
| 212 | PPP-Async-Map | Gives the Cisco router the asynchronous control character map for the PPP session. The specified control characters are passed through the PPP link as data and used by applications running over the link. |
| 213 | Third-Prompt | Defines a third prompt (after username and password) for additional user input. |
| 214 | Send-Secret | Enables an encrypted password to be used in place of a regular password in outdial profiles. |
| 215 | Receive-Secret | Enables an encrypted password to be verified by the RADIUS server. |
| 216 | IPX-Peer-Mode | (Ascend 5) No description available. |
| 217 | IP-Pool-Definition | Defines a pool of addresses using the following format: X a.b.c Z; where X is the pool index number, a.b.c is the pool's starting IP address, and Z is the number of IP addresses in the pool. For example, 3 10.0.0.1 5 allocates 10.0.0.1 through 10.0.0.5 for dynamic assignment. |
| 218 | Assign-IP-Pool | Tells the router to assign the user and IP address from the IP pool. |
| 219 | FR-Direct | Defines whether the connection profile operates in Frame Relay redirect mode. |
| 220 | FR-Direct-Profile | Defines the name of the Frame Relay profile carrying this connection to the Frame Relay switch. |
| 221 | FR-Direct-DLCI | Indicates the DLCI carrying this connection to the Frame Relay switch. |
| 222 | Handle-IPX | Indicates how NCP watchdog requests will be handled. |
| 223 | Netware-Timeout | Defines, in minutes, how long the RADIUS server responds to NCP watchdog packets. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|---|
| 224 | IPX-Alias | Allows you to define an alias for IPX routers requiring numbered interfaces. |
| 225 | Metric | No description available. |
| 226 | PRI-Number-Type | No description available. |
| 227 | Dial-Number | Defines the number to dial. |
| 228 | Route-IP | Indicates whether IP routing is allowed for the user's file entry. |
| 229 | Route-IPX | Allows you to enable IPX routing. |
| 230 | Bridge | No description available. |
| 231 | Send-Auth | Defines the protocol to use (PAP or CHAP) for username-password authentication following CLID authentication. |
| 232 | Send-Passwd | Enables the RADIUS server to specify the password that is sent to the remote end of a connection on outgoing calls. |
| 233 | Link-Compression | <p>Defines whether to turn on or turn off "stac" compression over a PPP link.</p> <p>Link compression is defined as a numeric value as follows:</p> <ul style="list-style-type: none"> • 0: None • 1: Stac • 2: Stac-Draft-9 • 3: MS-Stac |
| 234 | Target-Util | Specifies the load-threshold percentage value for bringing up an additional channel when PPP multilink is defined. |
| 235 | Maximum-Channels | Specifies allowed/allocatable maximum number of channels. |
| 236 | Inc-Channel-Count | No description available. |
| 237 | Dec-Channel-Count | No description available. |
| 238 | Seconds-of-History | No description available. |
| 239 | History-Weigh-Type | No description available. |
| 240 | Add-Seconds | No description available. |
| 241 | Remove-Seconds | No description available. |

| Number | Vendor-Proprietary Attribute | Description |
|--------|------------------------------|---|
| 242 | Data-Filter | Defines per-user IP data filters. These filters are retrieved only when a call is placed using a RADIUS outgoing profile or answered using a RADIUS incoming profile. Filter entries are applied on a first-match basis; therefore, the order in which filter entries are entered is important. |
| 243 | Call-Filter | Defines per-user IP data filters. On a Cisco router, this attribute is identical to the Data-Filter attribute. |
| 244 | Idle-Limit | Specifies the maximum time (in seconds) that any session can be idle. When the session reaches the idle time limit, its connection is dropped. |
| 245 | Preempt-Limit | No description available. |
| 246 | Callback | Allows you to enable or disable callback. |
| 247 | Data-Svc | No description available. |
| 248 | Force-56 | Determines whether the network access server uses only the 56 K portion of a channel, even when all 64 K appear to be available. |
| 249 | Billing Number | No description available. |
| 250 | Call-By-Call | No description available. |
| 251 | Transit-Number | No description available. |
| 252 | Host-Info | No description available. |
| 253 | PPP-Address | Indicates the IP address reported to the calling unit during PPP IPCP negotiations. |
| 254 | MPP-Idle-Percent | No description available. |
| 255 | Xmit-Rate | (Ascend 5) No description available. |

See the Configuring RADIUS feature module for more information on vendor-proprietary RADIUS attributes.

Feature Information for RADIUS Vendor-Proprietary Attributes

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 3: Feature Information for RADIUS Vendor-Proprietary Attributes

| Feature Name | Releases | Feature Information |
|--------------------------------------|--------------------------|---|
| RADIUS Vendor-Proprietary Attributes | Cisco IOS XE Release 2.1 | <p>The IETF draft standard for RADIUS specifies a method for communicating vendor-proprietary information between the network access server and the RADIUS server. However, some vendors have extended the RADIUS attribute set for specific applications. This document provides Cisco IOS XE support information for these vendor-proprietary RADIUS attributes.</p> <p>In Cisco IOS XE Release 2.1, this feature was introduced on the Cisco ASR 1000 Series Aggregation Services Routers.</p> |

