APPENDIX C

RADIUS Attributes

This appendix lists the attributes Cisco Prime Access Registrar (Cisco Prime AR) supports with their names and values. RADIUS attributes carry the specific authentication, authorization information, and configuration details for requests and replies. For more detailed information about specific attributes, see the appropriate RFC as listed Table C-1.

Table C-1 RFCs for RADIUS Attributes

RFC Subject	RFC Number
Standard RADIUS Attributes	2865
RADIUS Accounting Attributes	2866
Accounting Modifications for Tunnel Protocol Support	2867
Attributes for Tunnel Protocol Support	2868
RADIUS Extensions	2869

This appendix has two sections:

RADIUS Attributes—This section provides an alphabetic list of all RADIUS attributes Cisco Prime AR supports and a list of all RADIUS attributes in numeric order.

Vendor-Specific Attributes—This section provides lists of RADIUS vendor-specific attributes (VSAs).

RADIUS Attributes

This section lists the RADIUS attributes supported in Cisco Prime AR. RADIUS attributes carry specific authentication, authorization, information, and configuration details in the Access-Request and the RADIUS server response.

Cisco Prime Access Registrar Attributes

This section provides an alphabetical list of all attributes used in Cisco Prime AR and the attribute number.

Table C-2 RADIUS Attributes Alphabetical List

Attribute Name	Attribute Number
Acct-Authentic	45
Acct-Delay-Time	41
Acct-Input-Gigawords	52
Acct-Input-Octets	42
Acct-Input-Packets	47
Acct-Interim-Interval	85
Acct-Link-Count	51
Acct-Multi-Session-Id	50
Acct-Output-Gigawords	53
Acct-Output-Octets	43
Acct-Output-Packets	48
Acct-Session-Id	44
Acct-Session-Time	46
Acct-Status-Type	40
Acct-Terminate-Cause	49
Acct-Tunnel-Connection	68
Acct-Tunnel-Packets-Lost	86
Acquire-Group-Session-Limit	280
ARAP-Challenge-Response	84
ARAP-Features	71
ARAP-Password	70
ARAP-Security	73
ARAP-Security-Data	74
ARAP-Zone-Access	72
Callback-Id	20
Callback-Number	19
Called-Station-Id	30
Calling-Station-Id	31
Change-Password	17
CHAP-Challenge	60
CHAP-Password	3
Class	25
Configuration-Token	78
Connect-Info	77
Digest-Attributes	207
Digest-Response	206

Table C-2 RADIUS Attributes Alphabetical List (continued)

Attribute Name	Attribute Number
EAP-Message	79
Error-Cause	101
Event-Timestamp	55
Filter-Id	11
Framed-AppleTalk-Link	37
Framed-AppleTalk-Network	38
Framed-AppleTalk-Zone	39
Framed-Compression	13
Framed-Interface-Id	96
Framed-IP-Address	8
Framed-IP-Netmask	9
Framed-IPv6-Pool	100
Framed-IPv6-Prefix	97
Framed-IPv6-Route	99
Framed-IPX-Network	12
Framed-MTU	12
Framed-Pool	88
Framed-Protocol	7
Framed-Route	22
Framed-Routing	10
Idle-Timeout	28
Login-IP-Host	14
Login-IPv6-Host	98
Login-LAT-Group	36
Login-LAT-Node	35
Login-LAT-Port	63
Login-LAT-Service	34
Login-Service	15
Login-TCP-Port	16
Message-Authenticator	80
NAS-Identifier	32
NAS-IP-Address	4
NAS-IPv6-Address	95
NAS-Port	5
NAS-Port-ID	87
NAS-Port-Type	61

Table C-2 RADIUS Attributes Alphabetical List (continued)

Attribute Name	Attribute Number
Originating-Line-Info	94
Password-Expiration	21
Password-Retry	75
Port-Limit	62
Prompt	76
Proxy-State	33
Reply-Message	18
Service-Type	6
Session-Timeout	27
State	24
Termination-Action	29
Text-Ascend-Data-Filter	225
Tunnel-Assignment-ID	82
Tunnel-Client-Auth-ID	90
Tunnel-Client-Endpoint	66
Tunnel-Medium-Type	65
Tunnel-Password	69
Tunnel-Preference	83
Tunnel-Private-Group-ID	81
Tunnel-Server-Auth-ID	91
Tunnel-Server-Endpoint	67
Tunnel-Type	64
User-Name	1
User-Password	2
Vendor-Specific Attributes	26

RADIUS Attributes Numeric List

Table C-3 lists all RFC-defined RADIUS attributes in numeric order.

Table C-3 RADIUS Attributes Numeric List

Number	Attribute Name
1	User-Name
2	User-Password
3	CHAP-Password
4	NAS-IP-Address

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
5	NAS-Port
6	Service-Type
7	Framed-Protocol
8	Framed-IP-Address
9	Framed-IP-Netmask
10	Framed-Routing
11	Filter-Id
12	Framed-MTU
13	Framed-Compression
14	Login-IP-Host
15	Login-Service
16	Login-TCP-Port
17	Change-Password
18	Reply-Message
19	Callback-Number
20	Callback-Id
21	Password-Expiration
22	Framed-Route
12	Framed-IPX-Network
24	State
25	Class

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
26	Vendor-Specific Attributes (VSAs) See Vendor-Specific Attributes, page C-13 or the specific vendor's VSA list: • 3GPP VSAs • 3GPP2 VSAs • ACC VSAs • Altiga VSAs • Ascend VSAs • Bay Networks VSAs • Cabletron VSAs • Cisco Prime Access Registrar Internal VSAs • Cisco VSAs • Compatible VSAs • Microsoft VSAs • Nomadix VSAs • RedBack VSAs • RedCreek VSAs • Telebit VSAs • Unisphere VSAs • USR VSAs • WiMax • WISPr • XML
27	Session-Timeout
28	Idle-Timeout
29	Termination-Action
30	Called-Station-ID (DNIS)
31	Calling-Station-ID (CLID)
32	NAS-Identifier
33	Proxy-State
34	Login-LAT-Service
35	Login-LAT-Node
36	Login-LAT-Group
37	Framed-AppleTalk-Link

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
38	Framed-AppleTalk-Network
39	Framed-AppleTalk-Zone
40	Acct-Status-Type
41	Acct-Delay-Time
42	Acct-Input-Octets
43	Acct-Output-Octets
44	Acct-Session-Id
45	Acct-Authentic
46	Acct-Session-Time
47	Acct-Input-packets
48	Acct-Output-packets
49	Acct-Terminate-Cause
50	Acct-Multi-Session-Id
51	Acct-Link-Count
52	Acct-Input-Gigawords
53	Acct-Output-Gigawords
54	unassigned
55	Event-Timestamp
56	unassigned
57	unassigned
58	unassigned
59	unassigned
60	CHAP-Challenge
61	NAS-Port-Type
62	Port-Limit
63	Login-LAT-PortNo
64	Tunnel-Type
65	Tunnel-Medium-Type
66	Tunnel-Client-Endpoint
67	Tunnel-Server-Endpoint
68	Acct-Tunnel-Connection
68	Tunnel-ID
69	Tunnel-Password
70	ARAP-Password
71	ARAP-Features
72	ARAP-Zone-Access

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
73	ARAP-Security
74	ARAP-Security-Data
75	Password-Retry
76	Prompt
77	Connect-Info
78	Configuration-Token
79	EAP-Message
80	Message-Authenticator
81	Tunnel-Private-Group-ID
81	Ascend-Auth-Type
82	Tunnel-Assignment-ID
83	Tunnel-Preference
84	ARAP-Challenge-Response
85	Acct-Interim-Interval
85	Ascend-IP-Pool-Chaining
86	Acct-Tunnel-Packets-Lost
87	NAS-Port-ID
88	Framed-Pool
88	Ascend-IP-TOS
89	Ascend-IP-TOS-Precedence
90	Tunnel-Client-Auth-ID
90	Ascend-IP-TOS-Apply-To
91	Tunnel-Server-Auth-ID
91	Ascend-Filter
92	Ascend-Dsl-Rate-Type
93	Ascend-Redirect-Number
94	Originating-Line-Info
95	Ascend-ATM-Vci
96	Ascend-Source-IP-Check
97	Ascend-Dsl-Rate-Mode
98	Ascend-Dsl-Upstream-Limit
99	Ascend-Dsl-Downstream-Limit
100	Ascend-Dsl-CIR-Recv-Limit
101	Error-Cause
102	EAP-Key-Name
103	Ascend-Source-Auth

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
104	Ascend-Private-Route
105	unassigned
106	Ascend-FR-Link-Status-DLCI
107	unassigned
108	Ascend-Callback-Delay
109	unassigned
110	unassigned
111	Ascend-Multicast-GLeave-Delay
112	Ascend-CBCP-Enable
113	Ascend-CBCP-Mode
114	unassigned
115	Ascend-CBCP-Trunk-Group
116	Ascend-Appletalk-Route
117	Ascend-Appletalk-Peer-Mode
118	Ascend-Route-Appletalk
119	unassigned
120	Ascend-Modem-PortNo
121	Ascend-Modem-SlotNo
122	unassigned
112	unassigned
124	unassigned
125	Ascend-Maximum-Call-Duration
126	Ascend-Preference
127	Tunneling-Protocol
128	Ascend-Shared-Profile-Enable
129	Ascend-Primary-Home-Agent
130	Ascend-Secondary-Home-Agent
131	Ascend-Dialout-Allowed
132	Ascend-Client-Gateway
133	Ascend-BACP-Enable
134	Ascend-DHCP-Maximum-Leases
135	Ascend-Client-Primary-DNS
136	Ascend-Client-Secondary-DNS
137	Ascend-Client-Assign-DNS
138	Ascend-User-Acct-Type
139	Ascend-User-Acct-Host

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
140	Ascend-User-Acct-Port
141	Ascend-User-Acct-Key
142	Ascend-User-Acct-Base
143	Ascend-User-Acct-Time
144	Ascend-Assign-IP-Client
145	Ascend-Assign-IP-Server
146	Ascend-Assign-IP-Global-Pool
147	Ascend-DHCP-Reply
148	Ascend-DHCP-Pool-Number
149	Ascend-Expect-Callback
150	Ascend-Event-Type
151	Ascend-Session-Svr-Key
152	Ascend-Multicast-Rate-Limit
153	Ascend-IF-Netmask
154	Ascend-Remote-Addr
155	Ascend-Multicast-Client
156	Ascend-FR-Circuit-Name
157	Ascend-FR-LinkUp
158	Ascend-FR-Nailed-Grp
159	Ascend-FR-Type
160	Ascend-FR-Link-Mgt
161	Ascend-FR-N391
162	Ascend-FR-DCE-N392
163	Ascend-FR-DTE-N392
164	Ascend-FR-DCE-N393
165	Ascend-FR-DTE-N393
166	Ascend-FR-T391
167	Ascend-FR-T392
168	Ascend-Bridge-Address
169	Ascend-TS-Idle-Limit
170	Ascend-TS-Idle-Mode
171	Ascend-DBA-Monitor
172	Ascend-Base-Channel-Count
173	Ascend-Minimum-Channels
174	Ascend-IPX-Route
175	Ascend-FT1-Caller

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
176	Ascend-backup
177	Ascend-Call-Type
178	Ascend-Group
179	Ascend-FR-DLCI
180	Ascend-FR-Profile-Name
181	Ascend-Ara-PW
182	Ascend-IPX-Node-Addr
183	Ascend-Home-Agent-IP-Addr
184	Ascend-Home-Agent-Password
185	Ascend-Home-Network-Name
186	Ascend-Home-Agent-UDP-Port
187	Ascend-Multilink-ID supported
188	Ascend-Num-In-Multilink
189	Ascend-First-Dest (Not supported)
190	Ascend-Pre-Input-Octets
191	Ascend-Pre-Output-Octets
192	Ascend-Pre-Input-packets
193	Ascend-Pre-Output-packets
194	Ascend-Maximum-Time
195	Ascend-Disconnect-Cause
196	Ascend-Connect-Progress
197	Ascend-Data-Rate
198	Ascend-PreSession-Time
199	Ascend-Token-Idle
200	Ascend-Token-Immediate
201	Ascend-Require-Auth
202	Ascend-Number-Sessions
203	Ascend-Authen-Alias
204	Ascend-Token-Expiry
205	Ascend-Menu-Selector
206	Digest-Response
207	Digest-Attributes
208	Ascend-PW-Lifetime
209	Ascend-IP-Direct
210	Ascend-PPP-VJ-Slot-Comp
211	Ascend-PPP-VJ-1172

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
212	Ascend-PPP-Async-Map
213	Ascend-Third-Prompt
214	Ascend-Send-Secret
215	Ascend-Receive-Secret
216	Ascend-IPX-Peer-Mode
217	Ascend-IP-Pool-Definition
218	Ascend-Assign-IP-Pool
219	Ascend-FR-Direct
220	Ascend-FR-Direct-Profile
221	Ascend-FR-Direct-DLCI
222	Ascend-Handle-IPX
212	Ascend-Netware-timeout
224	Ascend-IPX-Alias
225	Ascend-Metric
226	Ascend-PRI-Number-Type
227	Ascend-Dial-Number
228	Ascend-Route-IP
229	Ascend-Route-IPX
120	Ascend-Bridge
121	Ascend-Send-Auth
122	Ascend-Send-Passwd
123	Ascend-Link-Compression
124	Ascend-Target-Util
125	Ascend-Maximum-Channels
126	Ascend-Inc-Channel-Count
127	Ascend-Dec-Channel-Count
128	Ascend-Seconds-Of-History
129	Ascend-History-Weigh-Type
240	Ascend-Add-Seconds
241	Ascend-Remove-Seconds
242	Ascend-Data-Filter
243	Ascend-Call-Filter
244	Ascend-Idle-Limit
245	Ascend-Preempt-Limit
246	Ascend-Callback
247	Ascend-Data-Svc

Table C-3 RADIUS Attributes Numeric List (continued)

Number	Attribute Name
248	Ascend-Force-56
249	Ascend-Billing-Number
250	Ascend-Call-By-Call
251	Ascend-Transit-Number
252	Ascend-Host-Info
253	Ascend-PPP-Address
254	Ascend-MPP-Idle-Percent
255	Ascend-Xmit-Rate
256	HNB Parameters
257	Macro-Coverage-Information
258	Geographical Location
259	HNB Internet Information
260	Reject Cause
270	White-List

Vendor-Specific Attributes

This section lists all vendor-specific attributes (VSAs) supported by Cisco Prime AR.

3GPP VSAs

Table C-4 lists the 3GPP VSAs. The vendor ID for 3GPP VSAs is 10415.

Table C-4 3GPP VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	3GPP-IMSI	String	0-15
2	3GPP-Charging-Id	UINT	0-65535
3	3GPP-PDPType	ENUM	0-2 0 = IPv4 1 = PPP 2 = IPv6
4	3GPP-OG-Address	IP Address	
5	3GPP-GPRS-QoS-Profile	String	0-31
6	3GPP-SGSN-Address	IP Address	
7	3GPP-GGSN-Address	IP Address	

Table C-4 3GPP VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
8	3GPP-IMSI-MCC-MNC	String	6-6
9	3GPP-GGSN-MCC-MNC	String	6-6
10	3GPP-NSAPI	String	1-1
11	3GPP-Session-Stop-Indicator	String	2-2
12	3GPP-Selection-Mode	String	1-1
13	3GPP-Charging-Characteristics	String	4-4
14	3GPP-CG-IPv6-Address	String	16-16
15	3GPP-SGSN-IPv6-Address	String	16-16
16	3GPP-GGSN-IPv6-Address	String	6-6
17	3GPP-IPv6-DNS-Servers	String	16-253
18	3GPP-SGSN-MCC-MNC	String	0-1
19	3GPP-Teardown-Indicator	UINT32	0-1
20	3GPP-IMEISV	String	16-16
21	3GPP-RAT-Type	String	1-1
22	3GPP-User-Location-Info	String	0-253
12	3GPP-MS-Timezone	String	2-2
24	3GPP-Camel-Charging-Info	String	0-253
25	3GPP-Packet-Filter	String	0-253
26	3GPP-Negotiated-DSCP	String	1-1

3GPP2 VSAs

Table C-5 lists the 3GPP2 VSAs. The vendor ID for 3GPP2 VSAs is 5535 with 8-bit VendorTypeSize.

Table C-5 3GPP2 VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	CDMA-IKE-Pre-Shared-Secret-Request	ENUM	1-2; 1 = The PDSN requests a pre-shared secret for IKE 2 = The PDSN does not request a pre-shared secret for IKE
2	CDMA-Security-Level	ENUM	1-4; 1 = IPSec for registration messages 2 = IPSec for tunnels 3= IPSec for tunnels and registration messages 4 = No IPSec security
3	CDMA-Pre-Shared-Secret	String	0-24
4	CDMA-Reverse-Tunnel-Spec	ENUM	0-1; 0 = Reverse tunneling is not required 1 = Reverse tunneling is required
5	CDMA-Diff-Svc-Class-Opt	ENUM	0-46; 0 = Best Effort 10 = AF11 12 = AF12 14 = AF13 18 = AF21 20 = AF22 22 = AF12 26 = AF31 28 = AF32 30 = AF33 34 = AF41 36 = AF42 38 = AF43 46 = EF
6	CDMA-Container	String	0-253
7	CDMA-HA-IP-Addr	IPADDR	
8	CDMA-KeyID-Attribute	String	0-28
9	CDMA-PCF-IP-Addr	IP Address	
10	CDMA-BS-MSC-Addr	String	0-253

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
11	CDMA-User-ID	UINT32	0-0
12	CDMA-Forward-MUX	UINT32	0-0
13	CDMA-Reverse-MUX	UINT32	0-0
14	CDMA-Forward-Rate	UINT32	0-0
15	CDMA-Reverse-Rate	UINT32	0-0
16	CDMA-Service-Option	UINT32	0-0
17	CDMA-Forward-Type	ENUM	0-1; 0 = Primary 1 = Secondary
18	CDMA-Reverse-Type	ENUM	0-1; 0 = Primary 1 = Secondary
19	CDMA-Frame-Size	ENUM	0-2; 0 = No Fundamental 1 = 5 ms Frame and 20ms Mixed Frame 2 = 20 ms Frame
20	CDMA-Forward-RC	UINT32	0-0
21	CDMA-Reverse-RC	UINT32	0-0
22	CDMA-IP-Technology	ENUM	1-3; 1 = Simple-IP 2 = Mobile-IP 3 = Proxy-Mobile-IP
12	CDMA-Comp-Flag	ENUM	0-2; 0 = None 1 = Non-secure 2 = Secure

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
24	CDMA-Release-Ind	ENUM	0-14; 0 = Unknown 1 = PPP/Service timeout 2 = Handoff 3 = PPP termination 4 = Mobile IP registration failure 5 = Abnormal Terminations 6 = Termination due to Resource management 7 = Service instance released 8 = Volume Quota reached, service instance released 9 = Duration Quota reached, Service instance released 10 = Incompatible PrePaid accounting information 11 = Airlink Parameter Change 12 = Time of Day Timer expiration 13 = Dormant by Accounting-Stop-triggered-by-Active-Stop 14 = Hot-Line status changed
25	CDMA-Dropped-Octets	UINT32	0-0
26	CDMA-Start-Date	String	0-253
27	CDMA-Start-Time	String	0-253
28	CDMA-Stop-Date	String	0-253
29	CDMA-Stop-Time	String	0-253
30	CDMA-Num-Active	UINT32	0-0
31	CDMA-SDB-Input-Octets	UINT32	0-0
32	CDMA-SDB-Output-Octets	UINT32	0-0
33	CDMA-NumSDB-Input	UINT32	0-0
34	CDMA-NumSDB-Output	UINT32	0-0
35	CDMA-Alt-Billing	UINT32	0-0

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
36	CDMA-IP-QoS	UINT32	0-0
37	CDMA-Interconnect-IP	UINT32	0-0
38	CDMA-Interconnect-QoS	UINT32	0-0
39	CDMA-Air-QoS	UINT32	0-0
40	CDMA-Airlink-Record-Type	ENUM	1-4; 1 = Connection Setup 2 = Active Start 3 = Active Stop 4 = SDB Record
41	CDMA-R-P-Link-ID	UINT32	0-0
42	CDMA-Airlink-Record-Type	UINT32	0-0
43	CDMA-PPP-Bytes-Received	UINT32	0-0
44	CDMA-Correlation-ID	String	0-253
45	CDMA-Mobile-Terminate-Originated-Ind	UINT32	0-0
46	CDMA-Inbound-Mobile-IP-Signalling-Octets	UINT32	0-0
47	CDMA-Outbound-Mobile-IP-Signalling-Octets	UINT32	0-0
48	CDMA-Session-Continue	ENUM	0-1; 0 = False 1 = True
49	CDMA-Active-Time	UINT32	0-0
50	CDMA-DCCH-Frame-Format	UINT32	0-3
51	CDMA-Beginning-Session	ENUM	0-1; 0 = False 1 = True
52	CDMA-ESN	String	0-253
54	CDMA-S-Attribute	String	0-253
55	CDMA-S-Request-Attribute	ENUM	0-1; 0 = The HA does not request a S secret for IKE 1 = The HA requests a S secret for IKE

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
56	CDMA-S-Lifetime-Attribute	UINT32	0-0
57	CDMA-MN-HA-SPI	String	0-4
58	CDMA-MN-HA-Shared-Key	String	0-253
59	CDMA-Remote-IPv4-Address	String	12-253
60	CDMA-HRPD-Access-Authentication	ENUM	1-1; 1 = HRPD Access Authentication
70	CDMA-Remote-IPv6-Address	String	68-253
71	CDMA-Remote-Address-Table-Index	UINT32	0-253
72	CDMA-Remote-IPv4-Address-Octet-Count	String	24-253
73	CDMA-Allowed-Differentiated-Service-Marking	String	12-253
74	CDMA-Service-Option-Profile	String	8-253
75	CDMA-DNS-Update-Required	ENUM	0-1; 0 = HA does not need to send DNS Update 1 = HA does need to send DNS Update
78	CDMA-Always-On	ENUM	0-1; 0 = Inactive 1 = Active
79	CDMA-Foreign-Agent-Address	IP Address	
80	CDMA-Last-User-Activity	UINT32	0-0
81	CDMA-MN-AAA-Removal-Indication	ENUM	1-1; 1 = MN-AAA not required
82	CDMA-RN-Packet-Data-Inactivity-Timer	UINT32	0-0
83	CDMA-Forward-PDCH-RC	UINT32	0-0
84	CDMA-Forward-DCCH-Mux-Option	UINT32	0-0
85	CDMA-Reverse-DCCH-Mux-Option	UINT32	0-0
86	CDMA-Forward-DCCH-RC	UINT32	0-0
87	CDMA-Reverse-DCCH-RC	UINT32	0-0

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
88	CDMA-Session-Termination-Capability	UINT32	0-0
89	CDMA-Allowed-Persistent-TFTs	UINT32	0-0
90	CDMA-PrePaid-Accounting-Quota	String	0-253
91	CDMA-PrePaid-Accounting-Capability	String	0-253
92	CDMA-MIP-Lifetime	String	0-253
93	CDMA-Accounting-Stop-Triggered-By-Active-Stop-Indication	ENUM	1-1; 1 = Accounting report at active/dormant transitions
94	CDMA-Service-Reference-ID	String	0-253
95	CDMA-DNS-Update-Capability	ENUM	1-1: 1 = HA is capable of dynamic DNS Update
96	CDMA-Disconnect-Reason	ENUM	1-1: 1 = MS Mobility Detection
97	CDMA-Remote-IPv6-Address-Octet-Count	String	36-253
98	CDMA-PrePaid-Tariff-Switching	String	0-253
99	CDMA-Authorization-Parameters	String	0-253
100	CDMA-BCMCS-Flow-ID	String	0-253
101	CDMA-BCMCS-Capability	String	0-253
102	CDMA-Common-Session-Info	String	0-253
103	CDMA-BSN-Session-Info	String	0-253
104	CDMA-RN-Session-Info	String	0-253
105	CDMA-Reason-Code	String	0-253
106	CDMA-Physical-Channel	String	0-253
107	CDMA-BCMCS-Flow-Transmission-Time	String	0-253
108	CDMA-Subnet	String	0-253
109	CDMA-Multicast-IP-Address	String	0-253
110	CDMA-Port	String	0-253
111	CDMA-Auth-Key	String	0-253
112	CDMA-TK-Info	String	0-253
113	CDMA-BAK-ID	String	0-253
114	CDMA-Reverse-PDCH-RC	UINT32	0-0
115	CDMA-Acq-Info-Timestamp	UINT32	0-0

Table C-5 3GPP2 VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
116	CDMA-MEID	String	0-16
117	CDMA-DNS-Server-IP-Address	String	0-22
118	CDMA-MIP6-Home-Agent-from-BU	String	0-18
119	CDMA-MIP6-CoA	String	0-22
120	CDMA-MIP6-HoA-Not-Authorized	ENUM	1-1; 1 = The HoA is not authorized
121	CDMA-MIP6-Session-Key	String	0-253
122	CDMA-Hot-Line-Accounting-Indicatio n	String	0-253
112	CDMA-Hot-Line-Profile-ID	String	0-253
124	CDMA-Filter-Rule	String	0-253
125	CDMA-HTTP-Redirection-Rule	String	0-253
126	CDMA-IP-Redirection-Rule	String	0-253
127	CDMA-Hot-Line-Capability	UINT3 2	0-0
128	CDMA-MIP6-Home-Link-Prefix	String	0-253
129	CDMA-MIP6-Home-Address	String	0-253
130	CDMA-Maximum-Authorized-Aggrega te-Bandwidth-for-Best-Effort-Traffic	UINT3 2	0-0
131	CDMA-Authorized-QoS-Profile-IDs-fo r-the-User	String	0-253
132	CDMA-Granted-QoS-Parameters	String	0-253
133	CDMA-Maximum-Per-Flow-Priority-fo r-the-User	UINT3 2	0-15
134	CDMA-MIP6-Authenticator	String	0-253
135	CDMA-Source-IPv6-Address	String	0-253
136	CDMA-Program-ID	String	0-253
137	CDMA-Program-Name	String	0-253
138	CDMA-MIP6-MAC-Mobility-Data	String	0-253
139	CDMA-Inter-User-Priority	UINT3 2	0-3
140	CDMA-MIP6-Home-Agent-Attribute-B	String	0-253
141	CDMA-MIP6-HoA	String	0-253
142	CDMA-Carrier-ID	String	0-8
143	CDMA-GMT-Time-Zone-Offset	String	0-253

ACC VSAs

Table C-6 lists the ACC VSAs. The vendor ID for ACC VSAs is 5.

Table C-6 ACC VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Acc-Reason-Code	ENUM: no reason given/no failure resource shortage protocol error invalid attribute invalid service type invalid framed protocol invalid attribute value invalid user information invalid IP address invalid integer syntax invalid NAS port	0-56
1	Acc-Reason-Code *(Continued)*	ENUM: requested by user session already open network disconnect service interruption physical port error idle timeout session timeout administrative reset NAS reload or reset NAS error NAS request	0-56
1	Acc-Reason-Code *(Continued)*	ENUM: undefined reason given too many RADIUS users conflicting attributes port limit exceeded facility not available internal configuration error bad route specification	0-56

Table C-6 ACC VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
1	Acc-Reason-Code *(Continued)*	Access Partition bind failure security violation request type conflict configuration disallowed missing attribute no authentication server invalid request missing parameter invalid parameter call cleared with cause inopportune config request invalid config parameter missing config parameter incompatible service profile administrative reset	0-56
1	Acc-Reason-Code *(Continued)*	administrative reload no authentication response port unneeded port preempted port suspended service unavailable callback user error host request no accounting server no accounting response access denied temporary buffer shortage	0-56
2	Acc-Ccp-Option	ENUM: Disabled Enabled	1-2
3	Acc-Input-Errors	UINT32	0-253
4	Acc-Output-Errors	UINT32	0-253
5	Acc-Access-Partition	String	0-253
6	Acc-Customer-Id	String	0-253
7	Acc-Ip-Gateway-Pri	IPADDR	0-253
8	Acc-Ip-Gateway-Sec	IPADDR	0-253
9	Acc-Route-Policy	ENUM : Funnel Direct	1-2
10	Acc-ML-MLX-Admin-State	ENUM: Enabled Disabled	1-2
11	Acc-ML-Call-Threshold	UINT32	0-253

Table C-6 ACC VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
12	Acc-ML-Clear-Threshold	UINT32	0-253
13	Acc-ML-Damping-Factor	UINT32	0-253
14	Acc-Tunnel-Secret	String	0-253
15	Acc-Clearing-Cause	ENUM: cause unspecified unassigned number invalid information element c message incompatible with sta recovery on timer expiration mandatory information element protocol error interworking normal clearing user busy no user responding user alerted no answer	0-127
15	Acc-Clearing-Cause *(Continued)*	ENUM: no route to transit network call rejected number changed non selected user clearing destination out of order invalid or incomplete number facility rejected no route to destination response to status inquiry normal unspecified cause no circuit or channel availab network out of order	0-127
15	Acc-Clearing-Cause *(Continued)*	ENUM: temporary failure switching equipment congestio access information discarded circuit or channel unavailabl circuit or channel preempted resources unavailable quality of service unavailabl facility not subscribed outgoing calls barred incoming calls barred bearer capability unauthorize bearer capability not availab	0-127

Table C-6 ACC VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
15	Acc-Clearing-Cause *(Continued)*	ENUM: channel unacceptable service not available bearer capability not impleme channel type not implemented facility not implemented call awarded being delivered restricted digital informatio service not implemented invalid call reference identified channel does not e call identity does not exist call identity in use no call suspended	0-127
15	Acc-Clearing-Cause *(Continued)*	ENUM: suspended call cleared incompatible destination invalid transit network selec invalid message mandatory information element message not implemented inopportune message information element not imple	0-127
16	Acc-Clearing-Location	ENUM: local or remote user private network serving local beyond interworking point public network serving local transit network private network serving remot public network serving remote international network	0-10
17	Acc-Service-Profile	String	0-253
18	Acc-Request-Type	ENUM: Ring Indication Dial Request User Authentication Tunnel Authentication User Accounting Tunnel Accounting	1-6
19	Acc-Framed-Bridge	ENUM : Disabled Enabled	0-1
20	Acc-Vpsm-Oversubscribed	ENUM : False True	1-2

Table C-6 ACC VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
21	Acc-Acct-On-Off-Reason	ENUM : NAS Reset NAS Reload Configuration Reset Configuration Reload Enabled Disabled	0-5
22	Acc-Tunnel-Port	UINT32	0-253
12	Acc-Dns-Server-Pri	IPADDR	0-253
24	Acc-Dns-Server-Sec	IPADDR	0-253
26	Acc-Nbns-Server-Sec	IPADDR	0-253
27	Acc-Dial-Port-Index		
28	Acc-Ip-Compression	ENUM: Disabled Enabled	0-1
29	Acc-Ipx-Compression	ENUM: Disabled Enabled	0-1
30	Acc-Connect-Tx-Speed	UINT32	0-253
31	Acc-Connect-Rx-Speed	UINT32	0-253
32	Acc-Modem-Modulation-Type	String	0-253
33	Acc-Modem-Error-Protocol	String	0-253
34	Acc-Callback-Delay	UINT32	0-253
35	Acc-Callback-Num-Valid	String	0-253
36	Acc-Callback-Mode	ENUM: User-Auth User-Specified-E-164 CBCP-Callback CLI-Callback	0-7
37	Acc-Callback-CBCP-Type	ENUM: CBCP-None CBCP-User-Specified CBCP-Pre-Specified	1-3
38	Acc-Dialout-Auth-Mode	ENUM: PAP CHAP CHAP-PAP NONE	1-4
39	Acc-Dialout-Auth-Password	String	0-253
40	Acc-Dialout-Auth-UserName	String	0-253

Table C-6 ACC VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
42	Acc-Access-Community	ENUM: PUBLIC NETMAN	1-2
43	Acc-Vpsm-Reject-Cause	ENUM: No-Access-Partition Access-Partition-Disabled Partition-Portlimit-Exceeded License-Portlimit-Exceeded Home-Server-Down Rejected-By-Home-Server NAS-Administratively-Disabled	1-7
44	Acc-Ace-Token	String	0-253
45	Acc-Ace-Token-Ttl	UINT	0-253
46	Acc-Ip-Pool-Name	String	0-253
47	Acc-Igmp-Admin-State	ENUM : Enabled Disabled	1-2
48	Acc-Igmp-Version	ENUM : V1 V2	1-2

Altiga VSAs

Table C-7 lists the Altiga VSAs. The vendor ID for Altiga VSAs is 3076.

Table C-7 Altiga VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Altiga-General-Acces-Hours	String	0-253
2	Altiga-General-Simultaneous-Logic	UINT32	0-253
3	Altiga-General-Minimum-Password-Length	UINT32	0-253
4	Altiga-General-All-Alphabetic-Only-Passwords	ENUM	0-1
5	Altiga-General-Primary-DNS	IP Address	0-253
6	Altiga-General-Secondary-DNS	IP Address	0-253
8	Altiga-General-Secondary-WINS	IP Address	0-253
9	Altiga-General-SEP-Card-Assignment	UINT32	0-253
10	Altiga-General-Priority-On-SEP	UINT32	0-253
11	Altiga-General-Tunneling-Protoco	UNIT32	0-253
12	Altiga-IPSec-Security-Associatio	String	0-253

Table C-7 Altiga VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
13	Altiga-IPSec-Authentication	ENUM: None RADIUS LDAP NT Domain SDI Internal	0-5
15	Altiga-IPSec-Banner	String	0-253
16	Altiga-IPSec-Allow-Password-Storage-On-Client	ENUM: False True	0-1
17	Altiga-PPTP-L2TP-Use-Client-Specified-Address	ENUM: False True	0-1
18	Altiga-PPTP-Minimal-Authentication-Protocol	UINT32	0-253
19	Altiga-L2TP-Minimal-Authentication	UINT32	0-253
20	Altiga-PPTP-Encryption	UINT32	0-253
21	Altiga-L2TP-Encryption	UINT32	0-253
22	Altiga-Argument-Authentication-Server-Type	ENUM: First Active Server RADIUS LDAP NT SDI Internal	0-5
12	Altiga-Argument-Authentication-Server-Password	String	0-253
24	Altiga-Argument-Request-Authenticatior-Vector	String	0-253
25	Altiga-IPSec-LTL-Keepalives	ENUM: False True	0-1
26	Altiga-Argument-IPSec-Group-Name	String	0-253
27	Altiga-IPSec-Split-Tunneling	String	0-253
28	Altiga-IPSec-Default-Domain	String	0-253
28	Altiga-IPSec-Secondary-Domain-List	String	0-253
30	Altiga-IPSec-Tunnel-Type	ENUM: LAN to LAN Remote Access	1-2

Table C-7 Altiga VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
31	Altiga-IPSec-Mode-Configuration	ENUM: False True	0-1
32	Altiga-Argument-Authentication-Server-Priority	UINT32	0-253
33	Altiga-IPSec-Group-Lock-Of-User	ENUM: False True	0-1
34	Altiga-IPSec-IPSec-Over-UDP	ENUM: False True	0-1
35	Altiga-IPSec-UDP-Port-For-IPSec	UINT32	0-253
128	Altiga-Partitioning-Primary-DHCP		
129	Altiga-Partitioning-Secondary-DHCP	IP Address	0-253
131	Altiga-Partitioning-Premise-Rout	IP Address	0-253
132	Altiga-Partitioning-Partition-Max-Sessions	String	0-253
133	Altiga-Partitioning-Mobile-IP-Key	String	0-253
134	Altiga-Partitioning-Mobile-IP-Address	IP Address	0-253
135	Altiga-Partitioning-Mobile-IP-SPI	IP Address	0-253
136	Altiga-Partitioning-Strip-Realm	ENUM: False True	0-1
137	Altiga-Partitioning-Group-ID	UINT32	0-253
250	Altiga-Group-Name	String	0-253

Ascend VSAs

Table C-8 lists the Ascend VSAs. The vendor ID for Ascend VSAs is 529.

Table C-8 Ascend VSAs

SubAttr	VSA Name	Type	Min-Max Value
17	Ascend-Change-Password	String	0 - 253
18	Ascend-Session-Type	ENUM: Unused Unknown G711-Ulaw G711-Alaw G712 G729 G712-64KPS G728 RT24	0 - 8
19	Ascend-H312-Gatekeeper	IP Address	0 - 253
21	Ascend-H312-Conference-ID	String	0-253
22	Ascend-H312-Destination-NAS-ID	IP Address	0-65535
12	Ascend-H312-Dialed-Time	UINT32	0-253
24	Ascend-H312-Dialed-Number	String	0-253
25	Ascend-Inter-Arrival-Jitter	UINT32	0-253
26	Ascend-Dropped-Octets	UINT32	0-253
27	Ascend-Dropped-Packets	UINT32	0-253
48	Ascend-Call-Direction	ENUM: Incoming Outgoing	0-1

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
49	Ascend-Service-Type	ENUM	0 - 12; NotUsed None EuUi Telnet TelnetBin RawTcp TermServer MP VirtualConn X25DChan PseuTun PPP IpFax Other ATM HdlcNrm VoIp Visa2 PPP Slip MPP X25 Combinet FR EuRaw
68	Ascend-Tunnel-ID	String	0 - 253
126	Ascend-Route-Preference	ENUM: Interface, OSPF-Internal, RIP, Down-WAN, OSPF-ASE, Infinite, ICMP	0-225
132	Ascend-Client-Gateway	IP Address	0 - 253
144	Ascend-Assign-IP-Client	IP Address	0-0
145	Ascend-Assign-IP-Server	IP Address	0-0
152	Ascend-Multicast-Rate-Limit	UINT32	0-65535
162	Ascend-FR-DCE-N392	UINT32	0-65535

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
163	Ascend-FR-DTE-N392	UINT32	0-65535
164	Ascend-FR-DCE-N393	UINT32	0-65535
165	Ascend-FR-DTE-N393	UINT32	0-65535
166	Ascend-FR-T391	UINT32	0-65535
167	Ascend-FR-T392	UINT32	0-65535
168	Ascend-Bridge-Address	UINT32	1-253
169	Ascend-TS-Idle-Limit	UINT32	0-65535
170	Ascend-TS-Idle-Mode	ENUM; TS-Idle-None TS-Idle-Input TS-Idle-Input-Output	0-2
171	Ascend-DBA-Monitor	ENUM; Transmit Transmit-Receive None	0-2
172	Ascend-Base-Channel-Count	UINT32	0-65535
173	Ascend-Minimum-Channels	UINT32	0-65535
174	Ascend-IPX-Route	String	1-253
175	Ascend-FT1-Caller	ENUM; FT1-No FT1-Yes	0-1
176	Ascend-Backup	String	1-253
177	Ascend-Call-Type	ENUM; Nailed Nailed/MPP Perm/Switched	0-2
178	Ascend-Group	String	1-253
179	Ascend-FR-DLCI	UINT32	0-65535
180	Ascend-FR-Profile-Name	String	1-253
181	Ascend-Ara-PW	String	1-253
182	Ascend-IPX-Node-Address	String	1-253
183	Ascend-Home-Agent-IP-Addr	IP Address	0-0
184	Ascend-Home-Agent-Password	String	1-253
185	Ascend-Home-Network-Name	String	1-253
186	Ascend-Home-Agent-UDP-Port	UINT32	0-65535
187	Ascend-Multilink-ID	UINT32	0-65535

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
188	Ascend-Num-In-Multilink	UINT32	0-65535
189	Ascend-First-Dest	IP Address	0-0
190	Ascend-Pre-Input-Octets	UINT32	0-65535
191	Ascend-Pre-Output-Octets	UINT32	0-65535
192	Ascend-Pre-Input-Packets	UINT32	0-65535
193	Ascend-Pre-Output-Packets	UINT32	0-65535
194	Ascend-Maximum-Time	UINT32	0-65535

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
195	vAscend-Pre-Output-Packets (continued)	ENUM: No-Reason, Not-Applicable, Modem-No-DCD, Session-Timeout, Invalid-Incoming-User, Disconnect-Due-To-Callback, DCD-Detected-Then-Inactive, Modem-Invalid-Result-Codes, Protocol-Disabled-Or-Unsuppor, Disconnect-Req-By-RADIUS, Disconnect-Req-By-Local-Admin, V110-Timeout-Or-Sync-Retry-Ex, PPP-Auth-Timeout-Exceeded, User-Executed-Do-Hangup, Remote-End-Hung-Up, Resource-Has-Been-Quiesced, Max-Call-Duration-Reached, Unknown, (continued)	0-195

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
195	vAscend-Pre-Output-Packets	ENUM: TermSrv-User-Quit, TermSrv-Idle-Timeout, TermSrv-Exit-Telnet, TermSrv-No-IPaddr, TermSrv-Exit-Raw-TCP, TermSrv-Exit-Login-Failed, TermSrv-Exit-Raw-TCP-Disabled, TermSrv-CTRL-C-In-Login, TermSrv-Destroyed, TermSrv-User-Closed-VCon, Call-Disconnected, TermSrv-VCon-Destroyed, TermSrv-Exit-Rlogin, TermSrv-Bad-Rlogin-Option, TermSrv-Not-Enough-Resources, MPP-No-NULL-Msg-Timeout, CLID-Authentication-Failed, (continued)	0-195

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
195	vAscend-Pre-Output-Packets	ENUM: PPP-LCP-Timeout, PPP-LCP-Negotion-Failed, PPP-PAP-Auth-Failed, PPP-CHAP-Auth-Failed, PPP-Rmt-Auth-Failed, PPP-Rcv-Terminate-Req, PPP-Rcv-Close-Event, PPP-No-NCPs-Open, PPP-MP-Bundle-Unknown,. PPP-LCP-Close-MP-Add-Fail, CLID-RADIUS-Timeout (continued)	0-195

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
195	vAscend-Pre-Output-Packets (*continued*)	Out-Of-Resources, Invalid-IP-Address, Hostname-Resolution-Failed, Bad-Or-Missing-Port-Number, Host-Reset, Connection-Refused, Connection-Timeout, Connection-Closed, Network-Unreachable, Host-Unreachable, Network-Unreachable-Admin, Host-Unreachable-Admin, Port-Unreachable,	

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
196	Ascend-Connect-Progress	ENUM: No-Progress, unknown1, Call-Up, unknown2, Modem-Up, Modem-Awaiting-DCD, Modem-Awaiting-Codes, TermSrv-Started, TermSrv-Raw-TCP-Started, TermSrv-Telnet-Started, TermSrv-Raw-TCP-Connected, TermSrv-Telnet-Connected, TermSrv-Rlogin-Started, TermSrv-Rlogin-Connected, TermSrv-Authentication-Begin, Modem-Outdial-Call-Up	0-94

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
196	Ascend-Connect-Progress	ENUM: LAN-Session-Up, LCP-Opening, CCP-Opening, IPNCP-Opening, NCP-Opening, LCP-Opened, CCP-Opened, IPNCP-Opened, BNCP-Opened, LCP-State-Initial, LCP-State-Starting, LCP-State-Closed, LCP-State-Stopped, BACP-Opened, LCP-State-Stopping, LCP-State-Request-Sent, LCP-State-Ack-Received, LCP-State-Ack-Sent, IPXNCP-Opened, ATNCP-Opened, BACP-Opening, V110-Up, V110-State-Opened, V110-State-Carrier, V110-State-Reset, V110-State-Closed	0-94
197	Ascend-Data-Rate	UINT32	0-65535

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
198	Ascend-PreSession-Time	UINT32	0-65535
199	Ascend-Token-Idle	UINT32	0-65535
200		ENUM: Tok-Imm-No, Tok-Imm-Yes	0-1
201	Ascend-Require-Auth	ENUM: Not-Require-Auth Require-Auth Pap-Only Pap-Only Pap-Login-Only Pap-Framed-Only Pap-Outbound-Only CHAP-Only CHAP-Only CHAP-Login-Only CHAP-Framed-Only CHAP-Outbound-Only MS-CHAP-Only MS-CHAP-Only MS-CHAP-Login-Only MS-CHAP-Framed-Only MS-CHAP-Outbound-Only	0-55
210	Ascend-PPP-VJ-Slot-Comp	ENUM: VJ-Slot-Comp-No	1-1
211	Ascend-PPP-VJ-1172	ENUM: PPP-VJ-1172	1-1
212	Ascend-PPP-Async-Map	UINT32	0-65535
213	Ascend-Third-Prompt	String	1-253
214	Ascend-Send-Secret	String	1-253
215	Ascend-Receive-Secret	String	1-253

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
216	Ascend-IPX-Peer-Mode	ENUM: IPX-Peer-Router, IPX-Peer-Dialin	1-1
217	Ascend-IP-Pool-Definition	String	1-253
218	Ascend-Assign-IP-Pool	UINT32	0-65535
219	Ascend-FR-Direct	ENUM: FR-Direct-No, FR-Direct-Yes	1-1
220	Ascend-FR-Direct-Profile	String	1-253
221	Ascend-FR-Direct-DLCI	UINT32	0-65535
222	Ascend-Handle-IPX	ENUM: Handle-IPX-None, Handle-IPX-Client, Handle-IPX-Server	0-2
212	Ascend-Netware-timeout	UINT32	0-65535
224	Ascend-IPX-Alias	UINT32	0-65535
225	Ascend-Metric	UINT32	0-65535
226	Ascend-PRI-Number-Type	ENUM: Unknown-Number, Intl-Number, National-Number, Local-Number Abbrev-Number	0-5
227	Ascend-Dial-Number	String	1-253
228	Ascend-Route-IP	ENUM: Unknown-Number, Intl-Number, National-Number, Local-Number, Abbrev-Number	0-5

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
229	Ascend-Route-IPX	ENUM: Route-IPX-No Route-IPX-Yes	0-1
120	Ascend-Bridge	ENUM: Bridge-No, Bridge-Yes	0-1
121	Ascend-Send-Auth	ENUM: Send-Auth-None, end-Auth-PAP, Send-Auth-CHAP	0-2
122	Ascend-Send-Passwd	String	1-253
123	Ascend-Link-Compression	ENUM: Link-Comp-None, Link-Comp-Stac, Link-Comp-Stac-Draft-9, Link-Comp-MS-Stac	0-3
124	Ascend-Target-Util	UINT32	0-65535
125	Ascend-Maximum-Channels	UINT32	0-65535
126	Ascend-Inc-Channel-Count	UINT32	0-65535
127	Ascend-Dec-Channel-Count	UINT32	0-65535
128	Ascend-Seconds-Of-History	UINT32	0-65535
129	Ascend-History-Weigh-Type	ENUM: History-Constant, History-Linear, History-Quadratic	0-2
240	Ascend-Add-Seconds	UINT32	0-65535
241	Ascend-Remove-Seconds	UINT32	0-65535
242	Ascend-Data-Filter	String	1-253
243	Ascend-Call-Filter	String	1-253
244	Ascend-Idle-Limit	UINT32	0-65535
245	Ascend-Idle-Limit	UINT32	0-65535

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
246	Ascend-Callback	ENUM: Callback-No, Callback-Yes	0-1

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
247	Ascend-Data-Svc	ENUM: Switched-Voice-Bearer, Switched-56KR, Switched-192K, Switched-256K, Switched-320K, Switched-384K-MR, Switched-448K, Switched-512K, Switched-566K, Switched-640K, Switched-704K, Switched-768K, Switched-64K, Switched-832K, Switched-896K, Switched-960K, Switched-1024K, Switched-1088K, Switched-1152K, Switched-1216K,. Switched-1280K, Switched-1344K, Switched-1408K, Switched-64KR, Switched-1472K, Switched-1600K, Switched-1664K, Switched-1728	0-43

Table C-8 Ascend VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
248	Ascend-Force-56	ENUM: Force-56-No, Force-56-Yes	0-1
249	Ascend-Billing-Number	String	1-253
250	Ascend-Call-By-Call	UINT32	0-65535
251	Ascend-Transit-Number	String	1-253
252	Ascend-Host-Info	String	1-253
253	Ascend-PPP-Address	IP Address	0-0
254	Ascend-MPP-Idle-Percent	UINT32	0-65535

Bay Networks VSAs

Table C-9 Lists the Bay Networks VSAs. The vendor ID for Bay Networks VSAs is 1584.

Table C-9 Bay Networks VSAs

SubAttr	VSA Name	Type	Min-Max Value
28	Annex-Filter	String	1-253
29	Annex-CLI-Command	String	1-253
30	Annex-CLI-Filter	String	1-253
31	Annex-Host-Restrict	String	1-253
32	Annex-Host-Allow	String	1-253
33	Annex-Product-Name	String	1-253
34	Annex-SW-Version	String	1-253
35	Annex-Local-IP-Address	IPADDR	1-253
36	Annex-Callback-Portlist	UINT32	0-0
44	Annex-System-Disc-Reason	UINT32	0-0
45	Annex-Modem-Disc-Reason	UINT32	0-0
46	Annex-Disconnect-Reason	UINT32	0-0
50	Annex-Transmit-Speed	UINT32	0-0
51	Annex-Receive-Speed	UINT32	0-0

Cabletron VSAs

Table C-10 lists the Cabletron VSAs. The vendor ID for Cabletron VSAs is 52.

Table C-10 Cabletron VSAs

SubAttr	VSA Name	Type	Min-Max Value
192	Cabletron-Framed-Data-Rate	ENUM: Rate-56KB Rate-64KB Rate-112KB Rate-128KB	0-4
193	Cabletron-Phone-Number	String	0-253
194	Cabletron-Caller-Id	String	0-253
196	Cabletron-Connection-Reference	UINT32	0-253
198	Cabletron-Initial-Rate	UINT32	0-253
199	Cabletron-Maximum-Rate	UINT32	0-253
192	Cabletron-Framed-Data-Rate	Enum: Rate-56KB Rate-64KB Rate-112KB Rate-128KB	192

Cisco Prime Access Registrar Internal VSAs

Table C-11 lists the Cisco Prime AR Internal VSAs. The vendor ID for Cisco Prime AR internal VSAs is 1760.

Table C-11 Cisco Prime AR Internal VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Realm	String	1-253
2	Incoming-Translation-Groups	String	1-253
3	Client-IP-Address	IP Address	1-253
4	Subnet-Mask	IP Address	1-253
5	Outgoing-Translation-Groups	String	1-253
6	Authentication-Service	String	1-253
7	Authorization-Service	String	1-253
8	DNIS	String	1-253
9	CLID	String	1-253
10	UserFilterMask	String	1-253

Table C-11 Cisco Prime AR Internal VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
11	Session-Manager	String	1-253
12	Accounting-Service	String	1-253
13	TimeRange	String	1-253
14	AcceptedProfiles	String	1-253
15	Policy	String	1-253
16	Prefix	String	1-253
17	Delimiters	String	1-253
18	StripPrefix	String	1-253
19	ODBC-Reply-Attribs	String	1-253
20	ODBC-Check-Attribs	String	1-253
21	Session-Service	String	1-253
22	Prepaid	ENUM: 0 = False 1 = True	1-2
12	Suffix	String	0-253
12	Implicit-Auth-Enabled	ENUM: 0 = False 1 = True	0-1
24	StripSuffix	ENUM: 0 = False 1 = True	0-1
24	Query-Service	String	0-253
92	RepSourceIP	String	1-253
93	RepTargetIP	String	1-253
94	RepTxnNum	String	1-253
95	RepTxnCRC	String	1-253
96	RepTxnElementCount	String	1-253
97	RepNeedsFullSync	UINT32	0-253
98	RepNeedsReSync	UINT32	0-253
99	RepLastRxTxnNum	UINT32	0-253
100	RepLastRxTxnCRC	UINT32	0-253
101	RepNeedsMember	UINT32	0-253
102	RepMemberName	String	1-253
103	RepMemberIP	IP Address	0-253
104	RepMemberPort	UINT32	0-253
105	RepMemberOrdinal	UINT32	0-253

Table C-11 Cisco Prime AR Internal VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
106	RepWorkLoad	UINT32	0-253
107	RepTxTime	UINT32	0-253
108	RepElementPath	String	1-253
109	RepElementValue	String	1-253
110	RepElementOrdinal	UINT32	0-253
111	RepElementCRC	UINT32	0-253
112	RepElementType	UINT32	0-253
113	RepElementMode	UINT32	0-253
114	RepPartialElement	Undefined	0-253

Cisco VSAs

Table C-12 lists the Cisco VSAs. The vendor ID for Cisco VSAs is 9.

Table C-12 Cisco VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Cisco-AVPair	String	0-253
2	Cisco-NAS-Port	String	0-253
3	Cisco-Fax-Account-ID-Origin	String	0-253
4	Cisco-Fax-Message-ID	String	0-253
5	Cisco-Fax-Pages	String	0-253
6	Cisco-FAX Cover Page Flag	String	0-253
7	Cisco-Fax-Modem-Time	String	0-253
8	Cisco-Fax-Connect-Speed	String	0-253
9	Cisco-Fax-Recipient-Count	String	0-253
10	Cisco-Fax-Process-Abort-Flag	String	0-253
11	Cisco-Fax-DSN-Address	String	0-253
12	Cisco-Fax-DSN-Flag	String	0-253
13	Cisco-Fax-MDN-Address	String	0-253
14	Cisco-Fax-MDN-Flag	String	0-253
15	Cisco-Fax-Auth-Status	String	0-253
16	Cisco-Email-Server-Address	IP Address	

Table C-12 Cisco VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
17	Cisco-Email-Server-ACK Flag	String	0-253
18	Cisco-Gateway-ID	String	0-253
19	Cisco-Call-Type	String	0-253
20	Cisco-Port-Used	String	0-253
21	Cisco-Abort-Cause	String	0-253
22	Cisco-CRS-Info	String	0-253
12	Cisco-h312-Remote-Address	String	0-253
24	Cisco-h312-Conf-ID	String	0-253
25	Cisco-h312-Setup-Time	String	0-253
26	Cisco-h312-Call-Origin	String	0-253
27	Cisco-h312-Call-Type	String	0-253
28	Cisco-h312-Connect-Time	String	0-253
29	Cisco-h312-Disconnect-Time	String	0-253
30	Cisco-h312-Disconnect-Cause	String	0-253
31	Cisco-h312-Voice-Quality	String	0-253
32	Cisco-h312-Generic-IVR-Out	String	0-253
33	Cisco-h312-Gateway-ID	String	0-253
34	Cisco-3GPP2-AVPair	String	0-253
35	Cisco Connection ID-h312-incoming-connection -ID	String	0-253
100	Cisco-h312-Generic-IVR-In	String	0-253
101	Cisco-h312-Amount-Balance		
102	Cisco-h312-Time-Balance	String	0-253
103	Cisco-h312-Return-Code	String	0-253
104	Cisco-h312-Prompt-ID	String	0-253
105	Cisco-h312-Time-of-Day	String	0-253
106	Cisco-h312-Redirect-Number	String	0-253
107	Cisco-h312-Preferred-Langua ge	String	0-253
108	Cisco-h312-Redirect-IP-Addr ess	String	0-253
109	Cisco-h312-Billing-Model	ENUM: postpai d prepaid	0-1
110	Cisco-h312-Currency	String	0-253

Table C-12 Cisco VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
128	Cisco-UCP-IP-Pool-ID	String	0-253
129	Cisco-UCP-User-Max-Sessions	String	0-253
130	Cisco-UCP-User-Session-Count	String	0-253
131	Cisco-UCP-Next-Session-ID	String	0-253
132	Cisco-UCP-VPDN-Max-Sessions	String	0-253
133	Cisco-UCP-VPDN-Session-Count	String	0-253
134	Cisco-UCP-B-Channel-Max-Sessions	String	0-253
135	Cisco-UCP-B-Channel-Session-Coun	String	0-253
136	Cisco-UCP-Status	String	0-253
137	Cisco-UCP-BLOB-Attribute-Length	String	0-253
138	Cisco-UCP-Disable-Statu	String	0-253
139	Cisco-UCP-Block-Access-Range	String	0-253
140	Cisco-UCP-Home-POP-ID	String	0-253
175	Cisco-UCP-IP-Addresses	IP Address	0-253
176	Cisco-UCP-Session-Info	String	0-253
211	Cisco-Ascend AV pairs	String	0-253
250	Cisco-SSG-Account-Info	String	0-253
251	Cisco-SSG-Service-Info	String	0-253
252	Cisco-SSG-Command-Code	String	0-253
253	Cisco-SSG-Control-Info	String	0-253

Compatible VSAs

Table C-13 lists the Compatible VSAs. The vendor ID for Compatible VSAs is 255.

Table C-13 Compatible VSAs

SubAttr	VSA Name	Type	Min-Max Value
0	Compatible-Tunnel-Delay	UNIT32	0-253
1	Compatible-Tunnel-Throughput	UNIT32	0-253
3	Compatible-Tunnel-Server-Endpoint	IP Address	0-253
4	Compatible-Tunnel-Group-Info	String	0-253
5	Compatible-Tunnel-Password	String	0-253
6	Compatible-Echo	UNIT32	0-253
7	Compatible-Tunnel-Client-IPX	UNIT32	0-253

Microsoft VSAs

Table C-14 lists the Microsoft VSAs. The vendor ID for Microsoft VSAs is 311.

Table C-14 Microsoft VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	MS-CHAP-Response	String	50-50
2	MS-CHAP-Error	String	0-253
3	MS-CHAP-CPW1	String	70-70
4	MS-CHAP-CPW2	String	84-84
5	MS-CHAP-LM-Enc-PW	String	4-253
6	MS-CHAP-NT-Enc-PW	String	4-253
7	MS-MPPE-Encryption-Policy	ENUM: Encryption-Allowed Encryption-Required	1-2
8	MS-MPPE-Encryption-Types	String	0-4
9	MS-RAS-Vendor	UINT32	0-253
10	MS-CHAP-Domain	String	0-253
11	MS-CHAP-Challenge	String	0-253
12	MS-CHAP-MPPE-Keys	String	32-32
13	MS-BAP-Usage	ENUM: Not allowed Allowed Required	0-2

Table C-14 Microsoft VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
14	MS-Link-Utilization-Threshold	UINT32	0-253
15	MS-Link-Drop-Time-Limit	String	0-253
16	MS-MPPE-Send-Key	String	0-253
17	MS-MPPE-Recv-Key	String	0-253
18	MS-RAS-Version	String	0-253
19	MS-Old-ARAP-Password	String	0-253
20	MS-New-ARAP-Password	String	0-253
21	MS-ARAP-Password-Change-Reason	ENUM: Just-Change-Password Expired-Password Admin-Requires-Password-Chang Password-Too-Short	1-4
22	MS-Filter	String	0-253
12	MS-Acct-Auth-Type	ENUM: PAP CHAP MS-CHAP-1 MS-CHAP-2 EAP	1-5
26	MS-CHAP2-Success	String	43-43
27	MS-CHAP2-CPW8	String	68-68
29	MS-Secondary-DNS-Server	IP Address	68-68
31	MS-Secondary-NBNS-Server	IP Address	70-70
33	MS-ARAP-Challenge	String	8-8

Nomadix VSAs

Table C-15 lists the Nomadix VSAs. The vendor ID for Nomadix VSAs is 3309.

Table C-15 Nomadix VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Nomadix-Bw-Up 0 253	UINT32	0-253
2	Nomadix-Dw-Down	UINT32	0-253

RedBack VSAs

Table C-16 lists the RedBack VSAs. The vendor ID for RedBack VSAs is 1252.

Table C-16 RedBack VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	RedBack-Client-DNS-Pri	String	0-253
2	RedBack-Client-DNS-Sec	String	0-253
3	RedBack-DHCP-Max-Leases	String	0-253
4	RedBack-Context-Name	String	0-253
5	RedBack-Bridge-Group	String	0-253
6	RedBack-BG-Aging-Time	String	0-253
7	RedBack-BG-Path-Cost	String	0-253
8	RedBack-BG-Span-Dis	String	0-253
9	RedBack-BG-Trans-BPDU	String	0-253
10	RedBack-Rate-Limit-Rate	String	0-253
11	RedBack-Rate-Limit-Burst	String	0-253
12	RedBack-Police-Rate	String	0-253
13	RedBack-Police-Burst	String	0-253
14	RedBack-Source-Validation	String	0-253
15	RedBack-Tunnel-Domain	String	0-253
16	RedBack-Tunnel-Local-Name	String	0-253
17	RedBack-Tunnel-Remote-Name	String	0-253
18	RedBack-Tunnel-Function	String	0-253
21	RedBack-Tunnel-Max-Sessions	String	0-253
22	RedBack-Tunnel-Max-Tunnels	String	0-253
12	RedBack-Tunnel-Session-Auth	String	0-253
24	RedBack-Tunnel-Window	String	0-253
25	RedBack-Tunnel-Retransmit	String	0-253

Table C-16 RedBack VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
26	RedBack-Tunnel-Cmd-Timeout	String	0-253
27	RedBack-PPPOE-URL	String	0-253
28	RedBack-PPPOE-MOTM	String	0-253
29	RedBack-Tunnel-Group	String	0-253
30	RedBack-Tunnel-Context	String	0-253
31	RedBack-Tunnel-Algorithm	String	0-253
32	RedBack-Tunnel-Deadtime	String	0-253
33	RedBack-Mcast-Send	String	0-253
34	RedBack-Mcast-Receive	String	0-253
35	RedBack-Mcast-MaxGroups	String	0-253
36	RedBack-Ip-Address-Pool-Name	String	0-253
37	RedBack-Tunnel-DNIS	String	0-253
38	RedBack-Medium-Type	String	0-253
39	RedBack-PVC-Encapsulation-Type	String	0-253
40	RedBack-PVC-Profile-Name	String	0-253
41	RedBack-PVC-Circuit-Padding	String	0-253
42	RedBack-Bind-Type	String	0-253
43	RedBack-Bind-Auth-Protocol	String	0-253
44	RedBack-Bind-Auth-Max-Sessions	String	0-253
45	RedBack-Bind-Bypass-Bypass	String	0-253
46	RedBack-Bind-Auth-Context	String	0-253
47	RedBack-Bind-Auth-Service-Grp	String	0-253
48	RedBack-Bind-Bypass-Context	String	0-253
49	RedBack-Bind-Int-Context	String	0-253
50	RedBack-Bind-Tun-Context	String	0-253
51	RedBack-Bind-Ses-Context	String	0-253
52	RedBack-Bind-Dot1q-Slot	String	0-253
53	RedBack-Bind-Dot1q-Port	String	0-253
54	RedBack-Bind-Dot1q-Vlan-Tag-Id	String	0-253
55	RedBack-Bind-Int-Interface-Name	String	0-253
56	RedBack-Bind-L2TP-Tunnel-Name	String	0-253

Table C-16 RedBack VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
57	RedBack-Bind-L2TP-Flow-Control	String	0-253
58	RedBack-Bind-Sub-User-At-Context	String	0-253
59	RedBack-Bind-Sub-Password	String	0-253
60	RedBack-Ip-Host-Addr	String	0-253
61	RedBack-IP-TOS-Field	String	0-253
62	RedBack-NAS-Real-Port	String	0-253
63	RedBack-Tunnel-Session-Auth-Ctx	String	0-253
64	RedBack-Tunnel-Session-Auth-Service-Grp	String	0-253
65	RedBack-Tunnel-Rate-Limit-Rate	String	0-253
66	RedBack-Tunnel-Rate-Limit-Burst	String	0-253
67	RedBack-Tunnel-Police-Rate	String	0-253
68	RedBack-Tunnel-Police-Burst	String	0-253
69	RedBack-Tunnel-L2F-Second-Password	String	0-253
128	RedBack-Acct-Input-Octets-64	String	0-253
129	RedBack-Acct-Output-Octets-64	String	0-253
130	RedBack-Acct-Input-Packets-64	String	0-253
131	RedBack-Acct-Output-Packets-64	String	0-253
132	RedBack-Assigned-IP-Address	String	0-253
133	RedBack-Acct-Mcast-In-Octets	String	0-253
134	RedBack-Acct-Mcast-Out-Octets	String	0-253
135	RedBack-Acct-Mcast-In-Packets	String	0-253
136	RedBack-Acct-Mcast-Out-Packets	String	0-253
137	RedBack-LAC-Port	String	0-253
138	RedBack-LAC-Real-Port	String	0-253
139	RedBack-LAC-Port-Type	String	0-253
140	RedBack-LAC-Real-Port-Type	String	0-253

RedCreek VSAs

Table C-17 lists the RedCreek VSAs. The vendor ID for RedCreek VSAs is 1958.

Table C-17 RedCreek VSAs

SubAttr	VSA Name	Type	Min-Max Value
6	RedCreek-Tunneled-IP-Netmask	IP Address	0-253
7	RedCreek-Tunneled-Gateway	IP Address	0-253
9	RedCreek-Tunneled-WINS-Server1	String	0-253
10	RedCreek-Tunneled-WINS-Server2	String	0-253
11	RedCreek-Tunneled-HostName	String	0-253
12	RedCreek-Tunneled-DomainName	String	0-253
13	RedCreek-Tunneled-Search-List	String	0-253

TACACS+ VSAs

Table C-18 lists the TACACS+ VSAs. The vendor ID for TACACS+ VSAs is 268435456.

Table C-18 TACACS+ VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Tacacs-Version	ENUM: 192 = 12.0 193 = 12.1	0-255
2	Tacacs-Type	ENUM: 1 = Authentication 2 = Authorization 3 = Accounting	1-3
3	Tacacs-Sequence-Number	UINT32	0-1
4	Tacacs-Session-Id	UINT32	0-2147483647
5	Tacacs-Action	ENUM: 1 = Login 2 = ChPass 3 = SendPass 4 = SendAuth	0-253
6	Tacacs-Privilege-Level	UINT32	0-15
7	Tacacs-Authentication-Type	ENUM: 1 = ASCII 2 = PAP 3 = CHAP 4 = ARAP 5 = MSCHAP	1-5

Table C-18 TACACS+ VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
8	Tacacs-Service	ENUM: 1 = Login 2 = Enable 3 = PPP 4 = ARAP 5 = PT 6 = RCMD 7 = X25 8 = NASI 9 = FWPROXY	1-9
9	Tacacs-User-Name	String	0-253
10	Tacacs-Port	String	0-253
11	Tacacs-Remote-Address	String	0-253
12	Tacacs-Data	String	0-253
13	Tacacs-User-Message	String	0-253
14	Tacacs-User-Data	String	0-253
15	Tacacs-Authentication-Continue-Flag	ENUM: 0 = Continue 1 = Abort	0-1
16	Tacacs-Authentication-Reply-Flag‘	ENUM: 0 = Echo 1 = NoEcho	0-1
17	Tacacs-Authentication-Reply-Status	ENUM: 1 = Pass 2= Fail 3 = GetData 4 = GetUser 5 = GetPass 6 = Restart 7 = Error 33 = Follow	0-33
18	Tacacs-Authorization-Reply-Status	ENUM: 1 = PassAdd 2 = PassRepl 16 = Fail 17 = Error 33 = Follow	0-33
19	Tacacs-Server-Message	String	0-253

Table C-18 TACACS+ VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
20	Tacacs-Authentication-Method	ENUM: 0 = NotSet 1 = None 2 = KRB5 3 = Line 4 = Enable 5 = Local 6 = TacacsPlus 7 = Guest 16 = Radius 17 = KRB4 32 = RCMD	0-32
21	Tacacs-AVPair	String	0-253
22	Tacacs-Accounting-Reply-Status	ENUM: 1 = Success 2 = Fail 33 = Follow	0-33
12	Tacacs-Header-Flag	ENUM: 0 = Encrypted 1 = Unencrypted 4 = Encrypted + ReuseConnection 5 = Unencrypted + ReuseConnection	0-5
24	Tacacs-User-Password	String	0-253
25	Tacacs-Accounting-Request-Flag	ENUM: 1 = More 2 = Start 3 = Start 4 = Stop 5 = Stop 6 = Start 7 = Start 8 = Update 9 = More 10 = Start 11 = Start 12 = Stop 13 = Stop 14 = Start 15 = Start	0-33
26	Tacacs-CHAP-Password	CHAP_PASSWORD	17-17
27	Tacacs-CHAP-Challenge	String	0-253

Table C-18 TACACS+ VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
28	Tacacs-MSCHAP-Response	String	50-50
29	Tacacs-MSCHAP-Challenge	String	0-253

Telebit VSAs

Table C-19 lists the Telebit VSAs. The vendor ID for Telebit VSAs is 117.

Table C-19 Telebit VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Telebit-Login-Command	String	0-253
2	Telebit-Port-Name	String	0-253
3	Telebit-Activate-Command	String	0-253
4	Telebit-Accounting-Info	String	0-253
5	Telebit-Login-Option	String	0-253

Unisphere VSAs

Table C-20 lists the Unisphere VSAs. The vendor ID for RedBack VSAs is 4874.

Table C-20 Unisphere VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	Unisphere-Virtual-Router	String	0-253
2	Unisphere-Local-Address-Pool	String	0-253
3	Unisphere-Local-Interface	String	0-253
4	Unisphere-Primary-DNS	String	0-253
5	Unisphere-Secondary-DNS	String	0-253
6	Unisphere-Primary-WINS	String	0-253
7	Unisphere-Secondary-WINS	String	0-253
8	Unisphere-Tunnel-Virtual-Router	String	0-253
9	Unisphere-Tunnel-Password	String	0-253
10	Unisphere-Ingress-Policy-Name	String	0-253
11	Unisphere-Egress-Policy-Name	String	0-253

Table C-20 Unisphere VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
12	Unisphere-Ingress-Statistics	String	0-253
13	Unisphere-Egress-Statistics	String	0-253
14	Unisphere-Service-Category	String	0-253
15	Unisphere-PCR	String	0-253
16	Unisphere-SCR	String	0-253
17	Unisphere-MBS	String	0-253
18	Unisphere-Init-CLI-Access-Level	String	0-253
19	Unisphere-Allow-All-VR-Access	String	0-253
20	Unisphere-Alt-CLI-Access-Level	String	0-253
21	Unisphere-Alt-CLI-VRouter-Name	String	0-253
22	Unisphere-SA-Validate	String	0-253
12	Unisphere-IGMP-enable	String	0-253
24	Unisphere-PPPoE-Description	String	0-253
25	Unisphere-Redirect-VRouter-Name	String	0-253

USR VSAs

Table C-21 lists the USR VSAs. The vendor ID for USR VSAs is 429.

Table C-21 USR VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	USR-DTE-Data-Idle-Timeout	UINT32	0-0
2	USR-Default-DTE-Data-Rate	ENUM: 110_BPS 300_BPS 600_BPS 1200_BPS 2400_BPS 4800_BPS 7200_BPS 9600_BPS 12K_BPS 14.4K_BPS 16.8_BPS 19.2K_BPS 38.4K_BPS 75_BPS 450_BPS UNKNOWN_BPS 57.6K_BPS 21.6K_BPS 24K_BPS 26K_BPS 28K_BPS 115K_BPS 31K_BPS 33K_BPS 25333_BPS 110_BPS 300_BPS 600_BPS 1200_BPS 2400_BPS 26666_BPS 28000_BPS 29333_BPS 30666_BPS 32000_BPS	1-54

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
2	USR-Default-DTE-Data-Rate	33333_BPS 34666_BPS 36000_BPS 37333_BPS 38666_BPS 40000_BPS 41333_BPS 42666_BPS 44000_BPS 45333_BPS 46666_BPS 48000_BPS 49333_BPS 50666_BPS 52000_BPS 53333_BPS 54666_BPS 56000_BPS 57333_BPS 58666_BPS 60000_BPS 61333_BPS 62666_BPS 64000_BPS	
3	USR-Last-Number-Dialed-Out	String	1-253
4	USR-Sync-Async-Mode	ENUM: Asynchronous Synchronous	1-2
5	USR-Originate-Answer-Mode	ENUM: Originate_in_Originate_Mode Originate_in_Answer_Mode Answer_in_Originate_Mode Answer_in_Answer_Mode	1-4
6	USR-Failure-to-Connect-Reason	ENUM:	1-67

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
7	USR-Initial-Tx-Link-Data-Rate	ENUM: 110_BPS 14.4K_BPS 16.8_BPS 19.2K_BPS 38.4K_BPS 75_BPS 450_BPS UNKNOWN_BPS 57.6K_BPS 21.6K_BPS 24K_BPS 300_BPS 26K_BPS 28K_BPS 115K_BPS 31K_BPS 33K_BPS 25333_BPS 26666_BPS 28000_BPS 29333_BPS 30666_BPS 600_BPS 32000_BPS 33333_BPS 34666_BPS 36000_BPS 37333_BPS 38666_BPS 40000_BPS 41333_BPS 42666_BPS 44000_BPS 1200_BPS 45333_BPS 46666_BPS 48000_BPS 49333_BPS 50666_BPS 52000_BPS 53333_BPS 54666_BPS 56000_BPS 57333_BPS 2400_BPS 58666_BPS 60000_BPS	1-54

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
7	USR-Initial-Tx-Link-Data-Rate (*continued*)	61333_BPS 62666_BPS 64000_BPS 4800_BPS 7200_BPS 9600_BPS 12K_BPS	
8	USR-Final-Tx-Link-Data-Rate	ENUM: 110_BPS 14.4K_BPS 16.8_BPS 19.2K_BPS 38.4K_BPS 75_BPS 450_BPS UNKNOWN_BPS 57.6K_BPS 21.6K_BPS 24K_BPS 300_BPS 26K_BPS 28K_BPS 115K_BPS 31K_BPS 33K_BPS 25333_BPS 26666_BPS 28000_BPS 29333_BPS 30666_BPS 600_BPS	1-54

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
8	USR-Final-Tx-Link-Data-Rate	32000_BPS 33333_BPS 34666_BPS 36000_BPS 37333_BPS 38666_BPS 40000_BPS 41333_BPS 42666_BPS 44000_BPS 1200_BPS 45333_BPS 46666_BPS 48000_BPS 49333_BPS 50666_BPS 52000_BPS 53333_BPS	1-54
8	USR-Final-Tx-Link-Data-Rate	54666_BPS 56000_BPS 57333_BPS 2400_BPS 58666_BPS 60000_BPS 61333_BPS 62666_BPS 64000_BPS 4800_BPS 7200_BPS 9600_BPS	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
9	USR-Modulation-Type	ENUM: usRoboticsHST bell208b v21FaxClass1 v27FaxClass1 v29FaxClass1 v17FaxClass1 v21FaxClass2 v27FaxClass2 v29FaxClass2 v17FaxClass2 v32Terbo ccittV32 v34 vFC v34plus x2 v110 v120 x75 ayncSyncPPP clearChannel ccittV22bis bell103 ccittV21 bell212 ccittV32bis ccittV12 negotiationFailed	1-28
9	USR-Modulation-Type	ENUM:	
10	USR-Equalization-Type	ENUM: Long Short	1-2
112	USR-Characters-Sent	UINT32	0-0
13	USR-Characters-Received	UINT32	0-0
14	USR-Blocks-Sent	UINT32	0-0
15	USR-Blocks-Received 0	UINT32	0-0
16	USR-Blocks-Resent	UINT32	0-0
17	USR-Retrains-Requested	UINT32	0-0
18	USR-Retrains-Granted	UINT32	
19	USR-Line-Reversals	UINT32	
20	USR-Number-Of-Characters-Lost0	UINT32	0-0

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
21	USR-Back-Channel-Data-Rate	ENUM : 450BPS 300BPS None	1-3
22	USR-Number-of-Blers	UINT32	0-0
12	USR-Number-of-Link-Timeouts	UINT32	0-0
24	USR-Number-of-Fallbacks	UINT32	0-0
25	USR-Number-of-Upshifts	UINT32	0-0
26	USR-Number-of-Link-NAKs	UINT32	0-0
27	USR-Simplified-MNP-Levels	ENUM: Unknown NON_ARQ MNP10ec LAPMAC V42ETC2 V42SREJ PIAFS V120 X75 MNP3 MNP4 V42 HST synchronous MNP2 MNP10(Cellular) V42ETC	0-16

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
28	USR-Connect-Term-Reason	ENUM: dtrDrop retransmitLimit linkDisconnectMsg Received noLoopCurrent invalidSpeed unableToRetrain managementComm and noDialTone keyAbort lineBusy noAnswer escapeSequence voice noAnswerTone noCarrier undetermined v42SabmeTimeout v42BreakTimeout v42DisconnectCmd v42IdExchangeFail v42BadSetup v42InvalidCodeWo rd athCommand v42StringToLong v42InvalidComman d none v32Cleardown dialSecurity	1-67

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
28	USR-Connect-Term-Reason	remoteAccessDenied loopLoss ds0Teardown promptNotEnabled noPromptingInSync carrierLoss nonArqMode modeIncompatible noPromptInNonARQ dialBackLink linkAbort autopassFailed pbGenericError pbLinkErrTxPreAck pbLinkErrTxTardyACK pbTransmitBusTimeout inactivityTimout pbReceiveBusTimeout pbLinkErrTxTAL pbLinkErrRxTAL pbTransmitMasterTimeout pbClockMissing pbReceivedLsWhileLinkUp pbOutOfSequenceFrame pbBadFrame pbAckWaitTimeout pbReceivedAckSeqErr mnpIncompatible pbReceiveOvrflwRNRFail pbReceiveMsgBufOvrflw rcvdGatewayDiscCmd tokenPassingTimeout dspInterruptTimeout mnpProtocolViolation	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
28	USR-Connect-Term-Reason	class2FaxHangupCmd hstSpeedSwitchTimeout undefined remotePassword linkPassword	
29	USR-DTR-False-Timeout	UINT32	0-0
30	USR-Fallback-Limit	UINT32	0-0
31	USR-Block-Error-Count-Limit	UINT32	0-0
32	USR-Simplified-V42bis-Usage	ENUM: None ccittV42bis mnpLevel5	1-3
33	USR-DTR-True-Timeou	UINT32	0-0
34	USR-Last-Number-Dialed-In-DNIS	String	1-253
35	USR-Last-Callers-Number-ANI	String	1-253
36	USR-Mbi-Ct-PRI-Card-Slot	UINT32	0-0
37	USR-Mbi-Ct-TDM-Time-Slot	UINT32	0-0
38	USR-Mbi-Ct-PRI-Card-Span-Line	UINT32	0-0
39	USR-Mbi-Ct-BChannel-Used	UINT32	0-0
40	USR-IP-Input-Filter	String	1-253
41	USR-IPX-Input-Filter	String	1-253
42	USR-IP-Output-Filter	String	1-253
43	USR-IPX-Output-Filter	String	1-253
44	USR-SAP-Output-Filter	String	1-253
45	USR-VPN-ID	UINT32	0-0
46	USR-VPN-Name	String	1-253
47	USR-VPN-Neighbor	String	1-253
48	USR-Framed-Routing-V2	ENUM: RIP-V2-Off RIP-V2-On	1-2
49	USR-VPN-Gateway	String	1-253
50	USR-Tunnel-Authenticato	String	1-253
51	USR-Packet-Index	String	1-253
52	USR-Cutoff	String	1-253

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
53	USR-Access-Accept-Packet	String	1-253
54	USR-Primary-DNS-Server	String	1-253
55	USR-Secondary-DNS-Server	String	1-253
56	USR-Primary-NBNS-Server	String	1-253
57	USR-Secondary-NBNS-Server	String	1-253
58	USR-Syslog-Tap	UINT32	0-0
59	USR-Chassis-Call-Slot	UINT32	0-0
60	USR-Chassis-Call-Span	UINT32	0-0
61	-Chassis-Call-Channel	UINT32	0-0
62	USR-Keypress-Timeout	UINT32	0-0
63	USR-Unauthenticated-Time	UINT32	0-0
64	USR-Bearer-Capabilities	UINT32	0-0
65	USR-Speed-Of-Connection	UINT32	0-0
66	USR-Max-Channels	UINT32	0-0
67	USR-Channel-Expansion	UINT32	0-0
68	USR-Channel-Decrement	UINT32	0-0
69	USR-Expansion-Algorithm	UINT32	0-0
70	USR-Compression-Algorithm	UINT32	0-0
71	USR-Receive-Acc-Map	UINT32	0-0
72	USR-Transmit-Acc-Map	UINT32	0-0
73	USR-Compression-Reset-Mode	UINT32	0-0
74	USR-Min-Compression-Size	UINT32	0-0
75	USR-IP	UINT32	0-0
76	USR-IPX	UINT32	0-0
77	USR-Filter-Zones	UINT32	0-0
78	USR-Appletalk	UINT32	0-0
79	USR-Bridging	UINT32	0-0
80	USR-Spoofing	UINT32	0-0
81	USR-Host-Type	String	1-253
82	USR-Send-Name	UINT32	0-0
83	USR-Send-Password	String	1-253
84	USR-Start-Time	UINT32	0-0
85	USR-End-Time	UINT32	0-0
86	USR-Send-Script1	String	1-253
87	USR-Reply-Script1	String	1-253

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
88	USR-Send-Script2	String	1-253
89	USR-Reply-Script2	String	1-253
90	USR-Send-Script3	String	1-253
91	USR-Send-Script3 USR-Reply-Script3	String	1-253
92	USR-Send-Script4	String	1-253
93	USR-Reply-Script4	String	1-253
94	USR-Send-Script5	String	1-253
95	USR-Reply-Script5	String	1-253
96	USR-Send-Script6	String	1-253
97	USR-Reply-Script6	String	1-253
98	USR-Terminal-Type	String	1-253
99	USR-Appletalk-Network-Range	UINT32	0-0
100	USR-Local-IP-Address	String	1-253
101	USR-Routing-Protocol	UINT32	0-0
102	USR-Modem-Group	UINT32	0-0
103	USR-IPX-Routing	UINT32	0-0
104	USR-IPX-Wan	UINT32	0-0
105	USR-IP-RIP-Policies	UINT32	0-0
106	USR-IP-RIP-Simple-Auth-Password	String	0-253
107	USR-IDS0-Call-Type	UINT32	0-0
108	USR-Call-Terminate-in-GMT	UINT32	0-0
109	USR-Call-Connect-in-GMT	UINT32	0-0
110	USR-Call-Arrival-in-GMT	UINT32	0-0
111	USR-Channel-Connected-To	UINT32	0-0
112	USR-Slot-Connected-To	UINT32	0-0
113	USR-Device-Connected-To	ENUM: None isdnGateway quadModem	1-3
114	USR-NFAS-ID	UINT32	0-0
115	USR-Q931-Call-Reference-Value	UINT32	0-0

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
116	USR-Call-Event-Code	ENUM: notSupported noFreeIGW igwRejectCall igwSetupTimeout noFreeTdmts bcReject ieReject chidReject progReject callingPartyReject calledPartyReject setup blocked analogBlocked digitalBlocked outOfService busy congestion protocolError noFreeBchannel inOutCallCollision usrSetup telcoDisconnect usrDisconnect noFreeModem modemsNotAllowed modemsRejectCall modemSetupTimeout	1-28
117	USR-DS0	UINT32	0-0
118	USR-DS0s	String	1-253
119	USR-Gateway-IP-Address	IP Address	0-0
120	USR-Physical-State	UINT32	0-0
121	USR-Chassis-Temp-Threshold	UINT32	0-0

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
122	USR-Card-Type	ENUM: SlotEmpty QuadV32DigitalModemNAC DualT1NIC DualAlogMdmNIC QuadDgtlMdmNIC QuadAlogDgtlMdmNIC TokenRingNIC SingleT1NIC EthernetNIC ShortHaulDualT1NIC DualAlogMgdIntlMdmNIC X25NIC	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
122	USR-Card-Type (continued)	ENUM: QuadAlogNonMgdMdmNIC QuadAlogMgdIntlMdmNIC QuadAlogNonMgdIntlMdmNIC QuadLsdLiMgdMdmNIC QuadLsdLiNonMgdMdmNIC QuadLsdLiMgdIntlMdmNIC QuadLsdLiNonMgdIntlMdmNIC EthernetWithV35NIC HSEthernetWithoutV35NIC DualHighSpeedV35NIC QuadV35RS122LowSpeedNIC DualE1NIC ShortHaulDualE1NIC BellcoreLongHaulDualT1NIC BellcoreShrtHaulDualT1NIC SCSIEdgeServerNIC QuadV32AnalogModemNAC QuadV32DigAnlModemNAC QuadV34DigModemNAC QuadV34AnlModemNAC QuadV34DigAnlModemNAC SingleT1NAC EthernetGatewayNAC AccessServer 486TrGatewayNAC SlotUnknown	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
122	USR-Card-Type *(continued)*	ENUM: 486EthernetGatewayNAC DualRS122NAC 486X25GatewayNAC ApplicationServerNAC ISDNGatewayNAC ISDNpriT1NAC ClkedNetMgtCard ModemPoolManagementNAC NetwMgtCard ModemPoolNetserverNAC (continued)	1-1027
122	USR-Card-Type *(continued)*	ModemPoolV34ModemNAC ModemPoolISDNNAC NTServerNAC QuadV34DigitalG2NAC QuadV34AnalogG2NAC QuadV34DigAnlgG2NAC NETServerFrameRelayNAC NETServerTokenRingNAC X2524ChannelNAC DualT1NAC WirelessGatewayNac EnhancedAccessServer EnhancedISDNGatewayNAC DualModemNAC QuadModemNAC TrGatewayNAC X25GatewayNAC DualV34ModemNAC	
112	USR-Security-Login-Limit	UINT32	0-0

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
124	USR-Security-Resp-Limit	UINT32	0-0
125	USR-Packet-Bus-Session	UINT32	0-0
126	USR-DTE-Ring-No-Answer-Limit	UINT32	0-0
127	USR-Final-Rx-Link-Data-Rate	ENUM: 110_BPS 14.4K_BPS 16.8_BPS 19.2K_BPS 38.4K_BPS 75_BPS 450_BPS UNKNOWN_BPS 57.6K_BPS 21.6K_BPS 24K_BPS 300_BPS 6K_BPS 28K_BPS 115K_BPS 31K_BPS 33K_BPS 25333_BPS 26666_BPS 28000_BPS 62666_BPS 9333_BPS 30666_BPS 600_BPS (continued)	1-54

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
127	USR-Final-Rx-Link-Data-Rate (continued)	32000_BPS 33333_BPS 34666_BPS 36000_BPS 37333_BPS 38666_BPS 40000_BPS 41333_BPS 42666_BPS 44000_BPS 1200_BPS 45333_BPS 46666_BPS 48000_BPS 49333_BPS 50666_BPS 52000_BPS 53333_BPS 54666_BPS 56000_BPS 57333_BPS 2400_BPS 58666_BPS 60000_BPS 61333_BPS 64000_BPS 800_BPS 7200_BPS 9600_BPS 12K_BPS	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
128	USR-Initial-Rx-Link-Data-Rate	ENUM: 110_BPS 14.4K_BPS 16.8_BPS 19.2K_BPS 38.4K_BPS 75_BPS 450_BPS UNKNOWN_BPS 57.6K_BPS 21.6K_BPS 24K_BPS 300_BPS 26K_BPS 28K_BPS 115K_BPS 31K_BPS 33K_BPS 25333_BPS 26666_BPS	1-54
128	USR-Initial-Rx-Link-Data-Rate	28000_BPS 29333_BPS 30666_BPS 600_BPS 32000_BPS 33333_BPS 34666_BPS 36000_BPS 37333_BPS 38666_BPS 40000_BPS 41333_BPS 42666_BPS 44000_BPS 1200_BPS 45333_BPS 46666_BPS 48000_BPS 49333_BPS 50666_BPS 52000_BPS 53333_BPS	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
128	USR-Initial-Rx-Link-Data-Rate	54666_BPS 56000_BPS 57333_BPS 2400_XBPS 58666_BPS 60000_BPS 61333_BPS 62666_BPS 64000_BPS 4800_BPS 7200_BPS 9600_BPS 12K_BPS	
129	USR-Event-Date-Time	UINT32	0-0
130	USR-Chassis-Temperature	UINT32	0-0
131	USR-Actual-Voltage	UINT32	0-0
132	USR-Expected-Voltage	UINT32	0-0
133	USR-Power-Supply-Number	UINT32	0-0
134	USR-Channel	UINT32	0-0
135	USR-Chassis-Slot	UINT32	0-0

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
136	USR-Event-Id	ENUM: HUB_Temp_Out_of_Range Fan_Failed Watchdog_Timeout Mgmt_Bus_Failure In_Connection_Est Out_Connection_Est In_Connection_Term Out_Connection_Term Connection_Failed Connection_Timeout DTE_Transmit_Idle DTR_True DTR_False Block_Error_at_Threshold Fallbacks_at_Threshold No_Dial_Tone_Detected No_Loop_Current_Detected Yellow_Alarm Red_Alarm Loss_Of_Signal Rcv_Alrm_Ind_Signal Timing_Source_Switch Modem_Reset_by_DTE Modem_Ring_No_Answer DTE_Ring_No_Answer Pkt_Bus_Session_Active Pkt_Bus_Session_Congestion Pkt_Bus_Session_Lost Pkt_Bus_Session_Inactive User_Interface_Reset Gateway_Port_Out_of_Service Gateway_Port_Link_Active	

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
136	USR-Event-Id (*Continued*)	Rcv_Alrm_Ind_Signal_Clear Incoming_Connection_Establish Module_Inserted Outgoing_Connection_Establish Incoming_Connection_Terminate Outgoing_Connection_Terminate Connection_Attempt_Failure Continuous_CRC_Alarm Continuous_CRC_Alarm_Clear Physical_State_Change Module_Removed Gateway_Network_Failed Gateway_Network_Restored Packet_Bus_Clock_Lost Packet_Bus_Clock_Restored D_Channel_In_Service D_Channel_Out_of_Service DS0s_In_Service DS0s_Out_of_Service T1/T1PRI/E1PRI_Call_Event PSU_Voltage_Alarm Psu_Incompatible T1,T1-E1/PRI-Call-Arrive-Even T1,T1-E1/PRI-Call-Connect-Eve T1,T1-E1/PRI-Call-Termina-Eve T1,T1-E1/PRI-Call-Failed-Even	6-84

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
137	USR-Number-of-Rings-Limit	UINT32	0-0
138	USR-Connect-Time-Limit	UINT32	0-0
139	USR-Call-End-Date-Time	UINT32	0-0
140	USR-Call-Start-Date-Time	UINT32	0-0
141	USR-Server-Time	UINT32	0-0
142	USR-Request-Type	ENUM: Access-Request Access-Challenge Status-Server Status-Client Access-Accept Reserved Access-Reject Accounting-Request Accounting-Response Access-Password-Change Access-Password-Ack Access-Password-Reject	1-255
143	USR-Old-Password	String	0-253
144	USR-Expiration	UINT32	0-0
145	USR-Prompt	UINT32	0-1
146	USR-Char-Noecho	UINT32	0-0
147	USR-User-Group-Name	String	0-253
148	148 USR-Call-Reference-Number	UINT32	0-253
149	USR-Dial-In-Sec-Mode	UNIT32	0-0
150	USR-Req-Db-Mdm-Sel	UINT32	0-0
151	USR-Req-Db-Login-Valid	UINT32	0-0
152	USR-Dialback-Group-Names	String	0-253
153	USR-Dial-In-Call-Rest	String	0-253
154	USR-Dial-Out-Call-Rest	String	0-253
155	USR-Logins-Before-Blacklist	UINT32	0-0
156	USR-Failed-Logins	UINT32	0-0
157	USR-Allowed-DB-Modems	String	0-253
158	USR-VPN-Encrypter	String	0-253

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
159	USR-Acct-VPN-Gateway	String	0-253
160	USR-Re-CHAP-Timeout	UINT32	0-0
161	USR-RMMIE-Manufacutere-ID	String	0-253
162	USR-RMMIE-Product-Code	String	0-253
163	USR-RMMIE-Serial-Number	String	0-253
164	USR-RMMIE-Firmware-Version	String	0-253
165	USR-RMMIE-Firmware-Build-Date	String	0-253
166	USR-RMMIE-Status	ENUM: notEnabledInLocalModem notDetectedInRemoteModem ok	1-3
170	USR-RMMIE-Last-Update-Time	UINT32	0-253
171	USR-RMMIE-Last-Update-Event	ENUM: None initialConnection retrain speedShift plannedDisconnect	1-5
172	USR-RMMIE-Rcv-Tot-PwrLvl	UNIT32	0-253
173	USR-RMMIE-Rcv-PwrLvl-3300Hz	UNIT32	0-253
174	USR-RMMIE-Rcv-PwrLvl-3750Hz	UNIT32	0-253
175	USR-RMMIE-PwrLvl-NearEcho-Canc	UNIT32	0-253
176	USR-RMMIE-PwrLvl-FarEcho-Canc	UNIT32	0-253
177	USR-RMMIE-PwrLvl-Noise-Lvl	UNIT32	0-253
178	USR-RMMIE-PwrLvl-Xmit-Lvl	UNIT32	0-253
179	USR-IPX-SAP	String	0-253
180	USR-MIC	UNIT32	0-253
181	USR-Call-Tracking-ID	UNIT32	0-253
182	USR-Log-Filter-Packet	UNIT32	0-253
183	USR-CCP-Algorithm	UNIT32	0-253

Table C-21 USR VSAs (continued)

SubAttr	VSA Name	Type	Min-Max Value
184	USR-ACCM-Type	UNIT32	0-253
185	USR-Connect-Speed	UNIT32	0-253
186	USR-Framed-IP-Address-Pool-Name	UNIT32	0-253
187	USR-MP-EDO	String	0-253
188	USR-Local-Framed-IP-Addr	UNIT32	0-253
189	USR-IP-RIP-Input-Filter	String	0-253
190	USR-IP-Call-Input-Filter	String	0-253
191	USR-IPX-Call-Input-Filter	String	0-253
192	USR-AT-Input-Filter	String	0-253
193	USR-AT-RTMP-Input-Filter	String	0-253
194	USR-AT-Zip-Input-Filter	String	0-253
195	USR-AT-Call-Input-Filter	String	0-253
196	USR-ET-Bridge-Input-Filter	String	0-253
197	USR-IP-RIP-Output-Filter	String	0-253
198	USR-IP-Call-Output-Filter	String	0-253
199	USR-IPX-RIP-Output-Filter	String	0-253
200	USR-IPX-Call-Output-Filter	String	0-253
201	USR-AT-Output-Filter	String	0-253
202	USR-ET-RTMP-Output-Filter	String	0-253
203	USR-AT-Zip-Output-Filter	String	0-253
204	USR-AT-Call-Output-Filter	String	0-253
205	USR-ET-Bridge-Output-Filter	String	0-253
206	USR-ET-Bridge-Call-Output-Filter	String	0-253
207	USR-IP-Default-Route-Option	UINT32	0-253
208	USR-MP-EDO-HIPER	String	0-253
209	USR-MP-MRRU	UINT32	0-253

WiMax

Table C-22 lists the WiMax VSAs. The vendor ID for WiMax VSAs is 24757.

Table C-22 WiMax VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	HA-IP-MIP4	IPAddress	0-253
2	HA-IP-MIP6	IPAddress	0-253
3	GMT-Time-Zone-Offet	String	0-253
4	NAP-ID	String	0-253
5	NSP-ID	String	0-253
6	Hotline-Indicator	String	0-253
7	BS-ID	String	0-253

WISPr

Table C-23 lists the WISPr VSAs. The vendor ID for WISPr VSAs is 14122.

Table C-23 WISPr VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	WISPr-Location-ID	String	0-65535
2	WISPr-Location-Name	String	0-253
3	WISPr-Logoff-URL	String	0-253
4	WISPr-Redirection-URL	String	0-253
5	WISPr-Bandwidth-Min-Up	UINT32	0-65535
6	WISPr-Bandwidth-Min-Down	UINT32	0-65535
7	WISPr-Bandwidth-Max-Up	UINT32	0-65535
8	WISPr-Bandwidth-Max-Down	UINT32	0-65535
9	WISPr-Session-Terminate-Time	UINT32	0-65535
10	WISPr-Session-Terminate-End-Of-Day	UINT32	0-65535
11	WISPr-Billing-Class-Of-Service	String	0-253

XML

Table C-24 lists the XML VSAs, attributes for XML tags. The vendor ID for XML VSAs is 5842.

Table C-24 XML VSAs

SubAttr	VSA Name	Type	Min-Max Value
1	XML-Address-format-IPv4	IPADDR	0-253
2	XML-Association	String	0-253
3	XML-Request	String	0-253
4	XML-Response	String	0-253
5	XML-UserId-id_type-subscriber_id	String	0-253
6	XML-UserIdRequest	String	0-253