Diameter Dictionaries and Attribute Definitions

This chapter presents information on Diameter dictionary types and attribute definitions.

Diameter Attributes

Diameter Attribute Value Pairs (AVPs) carry specific authentication, accounting, authorization, routing and security information as well as configuration details for the request and reply.

Some AVPs may be listed more than once. The effect of such an AVP is specific, and is specified in each case by the AVP description.

Each AVP of type OctetString must be padded to align on a 32-bit boundary, while other AVP types align naturally. A number of zero-valued bytes are added to the end of the AVP Data field till a word boundary is reached. The length of the padding is not reflected in the AVP Length field.

AVP Header

The AVP header contains the following three fields that requires IANA namespace management.

- AVP Code
- Vendor-ID
- Flags

The fields in the AVP header MUST be sent in network byte order. The format of the header is:

Figure 1: AVP Header

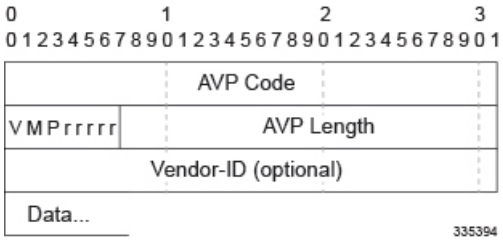

Table 1: AVP Header Details

Field	Description
AVP Code	The AVP Code, combined with the Vendor-ID field, identifies the attribute uniquely. AVP numbers 1 through 255 are reserved for backward compatibility with RADIUS, without setting the Vendor-ID field. AVP numbers 256 and above are used for Diameter, which are allocated by IANA.

Field	Description
AVP Flags	

Field	Description
	The AVP Flags field informs the receiver how each attribute must be handled. The 'r' (reserved) bits are unused and SHOULD be set to 0. Note that subsequent Diameter applications may define additional bits within the AVP Header, and an unrecognized bit SHOULD be considered an error. The 'P' bit indicates the need for encryption for end-to-end security. The 'M' Bit, known as the Mandatory bit, indicates whether support of the AVP is required. If an AVP with the 'M' bit set is received by a Diameter client, server, proxy, or translation agent and either the AVP or its value is unrecognized, the message MUST be rejected. Diameter Relay and redirect agents MUST NOT reject messages with unrecognized AVPs. The 'M' bit MUST be set according to the rules defined for the AVP containing it. In order to preserve interoperability, a Diameter implementation MUST be able to exclude from a Diameter message any Mandatory AVP which is neither defined in the base Diameter protocol nor in any of the Diameter Application specifications governing the message in which it appears. It may do this in one of the following ways: • If a message is rejected because it contains a Mandatory AVP which is neither defined in the base Diameter standard nor in any of the Diameter Application specifications governing the message in which it appears, the implementation may resend the message without the AVP, possibly inserting additional standard AVPs instead. • A configuration option may be provided on a system wide, per peer, or per realm basis that would allow/prevent particular Mandatory AVPs to be sent. Thus an administrator could change the configuration to avoid interoperability problems. Diameter implementations are required to support all Mandatory AVPs which are allowed by the message's formal syntax and defined either in the base Diameter standard or in one of the Diameter Application specifications governing the message. AVPs with the 'M' bit cleared are informational only and a receiver that receives a message with such an AVP that is not supported, or whose value is not supported, MAY simply ignore the AVP.

Field	Description
	The 'V' bit, known as the Vendor-Specific bit, indicates whether the optional Vendor-ID field is present in the AVP header. When set the AVP Code belongs to the specific vendor code address space. Unless otherwise noted, AVPs will have the following default AVP Flags field settings: The 'M' bit MUST be set. The 'V' bit MUST NOT be set.
AVP Length	The AVP Length field is three octets, and indicates the number of octets in this AVP including the AVP Code, AVP Length, AVP Flags, Vendor-ID field (if present) and the AVP data. If a message is received with an invalid attribute length, the message SHOULD be rejected.
Vendor-ID	This field is optional. The Vendor-ID field is present if the 'V' bit is set in the AVP Flags field. The optional four-octet Vendor-ID field contains the IANA assigned "SMI Network Management Private Enterprise Codes" value, encoded in network byte order. Any vendor wishing to implement a vendor-specific Diameter AVP MUST use their own Vendor-ID along with their privately managed AVP address space, guaranteeing that they will not collide with any other vendor's vendor-specific AVP(s), nor with future IETF applications. A vendor ID value of zero (0) corresponds to the IETF adopted AVP values, as managed by the IANA. Since the absence of the vendor ID field implies that the AVP in question is not vendor specific, implementations MUST NOT use the zero (0) vendor ID.

Basic AVP Data Formats

The Data field is zero or more octets and contains information specific to the attribute. The format and length of the Data field is determined by the AVP Code and AVP Length fields. The format of the Data field MUST be one of the following base data types or a data type derived from the base data types.

Table 2: Basic AVP Formats

AVP Data Format	Meaning
OctetString	The data contains arbitrary data of variable length. Unless otherwise noted, the AVP Length field MUST be set to at least 8 (12 if the 'V' bit is enabled). AVP Values of this type that are not a multiple of four-octets in length is followed by the necessary padding so that the next AVP (if any) will start on a 32-bit boundary.
Integer32	32 bit signed value, in network byte order. The AVP Length field MUST be set to 12 (16 if the 'V' bit is enabled).
Integer64	64 bit signed value, in network byte order. The AVP Length field MUST be set to 16 (20 if the 'V' bit is enabled).
Unsigned32	32 bit unsigned value, in network byte order. The AVP Length field MUST be set to 12 (16 if the 'V' bit is enabled).
Unsigned64	64 bit unsigned value, in network byte order. The AVP Length field MUST be set to 16 (20 if the 'V' bit is enabled).
Float32	This represents floating point values of single precision. The 32-bit value is transmitted in network byte order. The AVP Length field MUST be set to 12 (16 if the 'V' bit is enabled).
Float64	This represents floating point values of double precision. The 64-bit value is transmitted in network byte order. The AVP Length field MUST be set to 16 (20 if the 'V' bit is enabled).
Grouped	The Data field is specified as a sequence of AVPs. Each of these AVPs follows - in the order in which they are specified - including their headers and padding. The AVP Length field is set to 8 (12 if the 'V' bit is enabled) plus the total length of all included AVPs, including their headers and padding. Thus the AVP length field of an AVP of type Grouped is always a multiple of 4.

Derived AVP Data Formats

In addition to using the Basic AVP Data Formats, applications may define data formats derived from the Basic AVP Data Formats. An application that defines new AVP Derived Data Formats MUST include them in a

section entitled "AVP Derived Data Formats", using the same format as the definitions below. Each new definition must be either defined or listed with a reference to the RFC that defines the format.

The below AVP Derived Data Formats are commonly used by applications.

Address

The Address format is derived from the OctetString AVP Base Format. It is a discriminated union, representing, for example a 32-bit (IPv4) or 128-bit (IPv6) address, most significant octet first. The first two octets of the Address

AVP represents the AddressType, which contains an Address Family defined in IANAADFAM. The AddressType is used to discriminate the content and format of the remaining octets.

Time

The Time format is derived from the OctetString AVP Base Format. The string MUST contain four octets, in the same format as the first four bytes are in the NTP timestamp format.

This represents the number of seconds since 0h on 1 January 1900 with respect to the Coordinated Universal Time (UTC).

On 6h 28m 16s UTC, 7 February 2036 the time value will overflow. SNTP describes a procedure to extend the time to 2104. This procedure MUST be supported by all DIAMETER nodes.

UTF8String

The UTF8String format is derived from the OctetString AVP Base Format. This is a human readable string represented using the ISO/IEC IS 10646-1 character set, encoded as an OctetString using the UTF-8 [UFT8] transformation format described in RFC 2279.

Since additional code points are added by amendments to the 10646 standard from time to time, implementations MUST be prepared to encounter any code point from 0x00000001 to 0x7fffffff. Byte sequences that do not correspond to the valid encoding of a code point into UTF-8 charset or are outside this range are prohibited.

The use of control codes SHOULD be avoided. When it is necessary to represent a new line, the control code sequence CR LF SHOULD be used.

The use of leading or trailing white space SHOULD be avoided.

For code points not directly supported by user interface hardware or software, an alternative means of entry and display, such as hexadecimal, MAY be provided.

For information encoded in 7-bit US-ASCII, the UTF-8 charset is identical to the US-ASCII charset.

UTF-8 may require multiple bytes to represent a single character / code point; thus the length of an UTF8String in octets may be different from the number of characters encoded.

Note that the AVP Length field of an UTF8String is measured in octets, not characters.

DiameterIdentity

The DiameterIdentity (DIAMIDENT) format is derived from the OctetString AVP Base Format.

DiameterIdentity = FQDN

DiameterIdentity value is used to uniquely identify a Diameter node for purposes of duplicate connection and routing loop detection.

The contents of the string MUST be the FQDN of the Diameter node. If multiple Diameter nodes run on the same host, each Diameter node MUST be assigned a unique DiameterIdentity. If a Diameter node can be identified by several FQDNs, a single FQDN should be picked at startup, and used as the only DiameterIdentity for that node, whatever the connection it is sent on.

DiameterURI

The DiameterURI (DIAMURI) MUST follow the Uniform Resource Identifiers (URI) syntax [URI] rules specified below:

```
"aaa://" FQDN [ port ] [ transport ] [ protocol ]
```

– or –

```
"aaas://" FQDN [ port ] [ transport ] [ protocol ]
```

Table 3: DiameterURI Field Description

Field	Description
FQDN	Fully Qualified Host Name
port	One of the ports used to listen for incoming connections. If absent, the default Diameter port (3868) is assumed.
transport	One of the transport protocols used to listen for incoming connections. If absent, the default SCTP protocol is assumed. UDP MUST NOT be used when the aaa-protocol field is set to diameter. The transport protocol could be tcp, sctp, or udp.
protocol	This field denotes AAA protocol. If absent, the default AAA protocol is diameter. The AAA protocol could be diameter, radius, or tacacs+.

The following are examples of valid Diameter host identities:

```
aaa://host.example.com;transport=tcp
aaa://host.example.com:6666;transport=tcp
aaa://host.example.com;protocol=diameter
aaa://host.example.com:6666;protocol=diameter
aaa://host.example.com:6666;transport=tcp;protocol=diameter
aaa://host.example.com:1813;transport=udp;protocol=radius
```

Enumerated

Enumerated is derived from the Integer32 AVP Base Format. The definition contains a list of valid values and their interpretation and is described in the Diameter application introducing the AVP.

IPFilterRule

The IPFilterRule format is derived from the OctetString AVP Base Format. It uses the ASCII charset. Packets may be filtered based on the following information that is associated with it:

- Direction (in or out)
- Source and destination IP address (possibly masked)
- Protocol
- Source and destination port (lists or ranges)
- TCP flags
- IP fragment flag
- IP options
- ICMP types

Rules for the appropriate direction are evaluated in order, with the first matched rule terminating the evaluation. Each packet is evaluated once. If no rule matches, the packet is dropped if the last rule evaluated was a permit, and passed if the last rule was a deny.

IPFilterRule filters MUST follow the format:

```
action dir proto from src to dst [options]
```

Table 4: IPFilterRule Field Description

Field	Description
action	This field can be set to one of the following: • permit – Allow packets that match the rule. • deny – Drop packets that match the rule.
dir	"in" is from the terminal and "out" is to the terminal.
proto	An IP protocol specified by number. The "ip" keyword means any protocol will match.

Field	Description
src and dst	<address/mask> [ports] The <address/mask> may be specified as: ipno — An IPv4 or IPv6 number in dotted-quad or canonical IPv6 form. Only this exact IP number will match the rule. ipno/bits — An IP number as above with a mask width of the form 1.2.3.4/24. In this case, all IP numbers from 1.2.3.0 to 1.2.3.255 will match. The bit width MUST be valid for the IP version and the IP number MUST NOT have bits set beyond the mask. For a match to occur, the same IP version must be present in the packet that was used in describing the IP address. To test for a particular IP version, the bits part can be set to zero. The keyword "any" is 0.0.0.0/0 or the IPv6 equivalent. The keyword "assigned" is the address or set of addresses assigned to the terminal. For IPv4, a typical first rule is often "deny in ip! assigned" The sense of the match can be inverted by preceding an address with the not modifier (!), causing all other addresses to be matched instead. This does not affect the selection of port numbers. With the TCP, UDP and SCTP protocols, optional ports may be specified as: `{port/port-port}[,ports[,...]]` The '-' notation specifies a range of ports (including boundaries). Fragmented packets that have a non-zero offset (i.e., not the first fragment) will never match a rule that has one or more port specifications. See the frag option for details on matching fragmented packets.

Field	Description
options	

Field	Description
	The different options are as follows: • frag — Match if the packet is a fragment and this is not the first fragment of the datagram. frag may not be used in conjunction with either tcpflags or TCP/UDP port specifications. • ipoptions spec — Match if the IP header contains the comma separated list of options specified in spec. The supported IP options are: ssrr (strict source route), lsrr (loose source route), rr (record packet route) and ts (timestamp). The absence of a particular option may be denoted with a '!'. • tcpoptions spec — Match if the TCP header contains the comma separated list of options specified in spec. The supported TCP options are: mss (maximum segment size), window (tcp window advertisement), sack (selective ack), ts (rfc1323 timestamp) and cc (rfc1644 t/tcp connection count). The absence of a particular option may be denoted with a '!'. • established — TCP packets only. Match packets that have the RST or ACK bits set. • setup — TCP packets only. Match packets that have the SYN bit set but no ACK bit. • tcpflags spec — TCP packets only. Match if the TCP header contains the comma separated list of flags specified in spec. The supported TCP flags are: fin, syn, rst, psh, ack and urg. The absence of a particular flag may be denoted with a '!'. A rule that contains a tcpflags specification can never match a fragmented packet that has a non-zero offset. See the frag option for details on matching fragmented packets. • icmptypes types — ICMP packets only. Match if the ICMP type is in the list types. The list may be specified as any combination of ranges or individual types separated by commas. Both the numeric values and the symbolic values listed below can be used. The supported ICMP types are: echo reply (0), destination unreachable (3), source quench (4),

Field	Description
	redirect (5), echo request (8), router advertisement (9), router solicitation (10), time-to-live exceeded (11), IP header bad (12), timestamp request (13), timestamp reply (14), information request (15), information reply (16), address mask request (17) and address mask reply (18).

QoSFilterRule

The QosFilterRule format is derived from the OctetString AVP Base Format. It uses the ASCII charset. Packets may be marked or metered based on the following information that is associated with it:

- Direction (in or out)
- Source and destination IP address (possibly masked)
- Protocol
- Source and destination port (lists or ranges)
- DSCP values (no mask or range)

Rules for the appropriate direction are evaluated in order, with the first matched rule terminating the evaluation. Each packet is evaluated once. If no rule matches, the packet is treated as best effort. An access device that is unable to interpret or apply a QoS rule SHOULD NOT terminate the session

QoSFilterRule filters MUST follow the format:

```
action dir proto from src to dst [options]
```

Table 5: QoSFilterRule Field Description

Field	Description
action	This field can be set to one of the following: • tag — Mark packet with a specific DSCP [DIFFSERV]. The DSCP option MUST be included. • meter — Meter traffic. The metering options MUST be included.
dir	The format is as described under IPFilterRule.
proto	The format is as described under IPFilterRule.
src and dst	The format is as described under IPFilterRule.

Field	Description
options	The following options are available in addition to the ones described under IPFilterRule: • DSCP <*color*> — Color values as defined in [DIFFSERV]. Exact matching of DSCP values is required (no masks or ranges). • metering <*rate*> <*color_under*> <*color_over*> — The metering option provides Assured Forwarding, as defined in [DIFFSERVAF], and MUST be present if the action is set to meter. The rate option is the throughput, in bits per second, which is used by the access device to mark packets. Traffic above the rate is marked with the color_over codepoint, while traffic under the rate is marked with the *color_under* codepoint. The *color_under* and *color_over* options contain the drop preferences, and MUST conform to the recommended codepoint keywords described in [DIFFSERVAF] (e.g. AF13). The metering option also supports the strict limit on traffic required by Expedited Forwarding, as defined in [DIFFSERVEF]. The *color_over* option may contain the keyword "drop" to prevent forwarding of traffic that exceeds the rate parameter.

Grouped AVP Values

The Diameter protocol allows AVP values of type 'Grouped.' This implies that the Data field is actually a sequence of AVPs. It is possible to include an AVP with a Grouped type within a Grouped type, that is, to nest them. AVPs within an AVP of type Grouped have the same padding requirements as non-Grouped AVPs.

The AVP Code numbering space of all AVPs included in a Grouped AVP is the same as for non-grouped AVPs. Further, if any of the AVPs encapsulated within a Grouped AVP has the 'M' (mandatory) bit set, the Grouped AVP itself MUST also include the 'M' bit set.

Every Grouped AVP defined MUST include a corresponding grammar, using ABNF (with modifications), as defined below.

```
grouped-avp-def = name "::=" avp
name-fmt = ALPHA *(ALPHA / DIGIT / "-")
name = name-fmt
avp = header [ *fixed] [ *required] [ *optional] [ *fixed]
header = "<" "AVP-Header:" avpcode [vendor] ">"
avpcode = 1*DIGIT
vendor = 1*DIGIT
```

Where, name = the name of an AVP, defined in the base or extended Diameter specifications.

avp code = The AVP Code assigned to the Grouped AVP.

vendor = The Vendor-ID assigned to the Grouped AVP. If absent, the default value of zero is used.

The Example-AVP (AVP Code 999999) is of type Grouped and is used to clarify how Grouped AVP values work. The Grouped Data field has the following ABNF grammar:

```
Example-AVP  ::= < AVP Header: 999999 >
                     { Origin-Host }
                   1*{ Session-Id }
                    *[ AVP ]
```

An Example-AVP with Grouped Data follows. The Origin-Host AVP is required.

In this case, Origin-Host = "example.com".

One or more Session-IDs must follow. Here there are two:

```
Session-Id = "grump.example.com:33041;23432;893;0AF3B81"
```

```
Session-Id = "grump.example.com:33054;23561;2358;0AF3B82"
```

Optional AVPs included are:

```
Recovery-Policy = <binary> 2163bc1d0ad82371f6bc09484133c3f09ad74a0dd5346d54195a7cf0b35
2cabc881839a4fdcfbc1769e2677a4c1fb499284c5f70b48f58503a45c5
c2d6943f82d5930f2b7c1da640f476f0e9c9572a50db8ea6e51e1c2c7bd
f8bb43dc995144b8dbe297ac739493946803e1cee3e15d9b765008a1b2a
cf4ac777c80041d72c01e691cf751dbf86e85f509f3988e5875dc905119
26841f00f0e29a6d1ddc1a842289d440268681e052b30fb638045f7779c
1d873c784f054f688f5001559ecff64865ef975f3e60d2fd7966b8c7f92
Futuristic-Acct-Record = <binary> fe19da5802acd98b07a5b86cb4d5d03f0314ab9ef1ad0b67111ff3b90a0
 57fe29620bf3585fd2dd9fcc38ce62f6cc208c6163c008f4258d1bc88b8
17694a74ccad3ec69269461b14b2e7a4c111fb239e33714da207983f58c
41d018d56fe938f3cbf089aac12a912a2f0d1923a9390e5f789cb2e5067 d3427475e49968f841
```

The data for the optional AVPs is represented in hexadecimal since the format of these AVPs is neither known at the time of definition of the Example-AVP group, nor (likely) at the time when the example instance of this AVP is interpreted - except by Diameter implementations which support the same set of AVPs. Also note that AVPs may be present in the Grouped AVP value which the receiver cannot interpret (here, the Recover-Policy and Futuristic-Acct-Record AVPs).

Diameter Dictionaries

This section presents information on Diameter dictionary types.

DPCA

The Diameter Policy Control Application (DPCA) dictionaries are used by the PDSN, GGSN, HA, IPSG product(s).

To configure the Diameter dictionary for Policy Control Configuration, use the following configuration:

```
configure
     context <context_name>
          ims-auth-service <ims_auth_service_name>
               policy-control
                    diameter dictionary { Standard | dpca-custom1 |
dpca-custom10 | dpca-custom11 | dpca-custom12 | dpca-custom13 |
dpca-custom14 | dpca-custom15 | dpca-custom16 | dpca-custom17 |
dpca-custom18 | dpca-custom19 | dpca-custom2 | dpca-custom20 |
```

```
dpca-custom21 | dpcacustom22 | dpca-custom23 | dpca-custom24 |
dpca-custom25 | dpca-custom26 | dpca-custom27 | dpca-custom28 |
dpca-custom29 | dpca-custom3 | dpca-custom30 | dpca-custom4 | dpca-custom5
 | dpca-custom6 | dpca-custom7 | dpca-custom8 | dpca-custom9 | dynamic-load
 | gx-wimax-standard | gxa-3gpp2-standard | gxc-standard | pdsn-ty |
r8-gx-standard | std-pdsn-ty | ty-plus | ty-standard }
                    end
```

Dictionary	Description
Standard	Specifies standard attributes for the Rel 6 Gx interface.
dpca-custom1...dpca-custom*n*	Custom-defined dictionaries.
dynamic load	Specifies the dynamically loaded Diameter dictionary attributes.
gx-wimax-standard	Specifies standard Gx WiMAX Standard attributes.
gxa-3gpp2-standard	Specifies standard Gxa 3GPP2 Standard attributes.
gxc-standard	Specifies Gxc Standard attributes.
pdsn-ty	Specifies the standard attributes for the PDSN Ty interface.
r8-gx-standard	Specifies standard R8 Gx attributes.
std-pdsn-ty	Specifies standard attributes for the Ty interface.
ty-plus	Specifies customer-specific enhanced attributes for the Ty interface.
ty-standard	Specifies standard Ty attributes.

Note For information on custom-defined dictionaries, contact your Cisco account representative.

DCCA

The Diameter Credit Control Application (DCCA) dictionaries are used by the GGSN and IPSG product(s).

To configure the DCCA dictionary for Active Charging service, use the following configuration:

```
configure
     active-charging service <acs_service_name>
          credit-control
               diameter dictionary { dcca-custom1 | dcca-custom10 |
dcca-custom11 | dcca-custom12 | dcca-custom13 | dcca-custom14 |
dcca-custom15 | dcca-custom16 | dcca-custom17 | dcca-custom18 |
dcca-custom19 | dcca-custom2 | dcca-custom20 | dcca-custom21 |
dcca-custom22 | dcca-custom23 | dcca-custom24 | dcca-custom25 |
dcca-custom26 | dcca-custom27 | dcca-custom28 | dcca-custom29 |
```

```
dcca-custom3 | dcca-custom30 | dcca-custom4 | dcca-custom5 | dcca-custom6
 | dcca-custom7 | dcca-custom8 | dcca-custom9 | dynamic-load | standard
}
                end
```

Dictionary	Description
dcca-custom1 ... dcca-custom*n*	Custom-defined dictionaries.
standard	Specifies standard attributes for the Gy interface.
dynamic load	Specifies the dynamically loaded Diameter dictionary attributes.

Note For information on custom-defined dictionaries, contact your Cisco account representative.

CSCF

The Diameter Policy Control dictionaries for Call Session Control Function (CSCF) Diameter Policy External Control Application (DPECA) service are used by the SCM P-CSCF product.

In Star OS 8.1 and later releases, to configure the Diameter Policy Control dictionary, use the following configuration:

```
configure
     context <context_name>
          cscf service <cscf_service_name>
               proxy-cscf
                    diameter policy-control { dictionary { dynamic-load
| gq-custom | gq-standard | rq-custom | rx-custom01 | rx-custom02 |
rx-custom03 | rx-custom04 | rx-custom05 | rx-rel8 | rx-standard |
tx-standard }
                    end
```

Dictionary	Description
dynamic load	Specifies the dynamically loaded Diameter dictionary attributes.
gq-custom	Specifies customized attributes for the 3GPP Gq interface.
gq-standard	Specifies standard attributes for the 3GPP Gq interface.
rq-custom	Custom-defined dictionary.
rx-rel8	Rel. 8 Rx dictionary.
rx-standard	Specifies standard attributes for the 3GPP Rx interface.

Dictionary	Description
tx-standard	Specifies the standard attributes for the 3GPP2 Tx interface.
rx-custom01...rx-custom05	Custom-defined dictionaries.

Note For information on custom-defined dictionaries, contact your Cisco account representative.

Diameter AAA

The Diameter Authentication, Authorization, and Accounting (AAA) dictionaries are used by the S-CSCF and AIMS product(s).

To specify the AAA dictionary to be used when Diameter is being used for accounting, in the AAA Server Group Configuration Mode or in the Context Configuration Mode, use the following command:

```
diameter accounting dictionary { aaa-custom1 | aaa-custom10 | aaa-custom2
 | aaa-custom3 | aaa-custom4 | aaa-custom5 | aaa-custom6 | aaa-custom7 |
 aaa-custom8 | aaa-custom9 | dynamic-load | nasreq | rf-plus }
```

To specify the AAA dictionary to be used when Diameter is being used for authentication, in the AAA Server Group Configuration Mode or in the Context Configuration Mode, use the following command:

```
diameter authentication dictionary { aaa-custom1 | aaa-custom10 |
aaa-custom11 | aaa-custom12 | aaa-custom13 | aaa-custom14 | aaa-custom15
 | aaa-custom16 | aaa-custom17 | aaa-custom18 | aaa-custom19 | aaa-custom2
 | aaa-custom20 | aaa-custom3 | aaa-custom4 | aaa-custom5 | aaa-custom6
| aaa-custom7 | aaa-custom8 | aaa-custom9 | dynamic-load | nasreq }
```

Dictionary	Description
aaa-custom1... aaa-custom8, aaa-custom10 ... aaa-custom*n*	Custom-defined dictionaries.
aaa-custom9	Specifies standard attributes for the STa interface.
nasreq	Specifies the NASREQ attributes defined by RFC 4005.
rf-plus	Specifies customer-specific enhanced attributes for the Rf interface.
dynamic load	Specifies the dynamically loaded Diameter dictionary attributes.

Note For information on custom-defined dictionaries, contact your Cisco account representative.

Diameter AVP Definitions

This section presents Diameter attribute definitions.

3GPP-AAA-Server-Name

3GPP-AAA-Server-Name

Vendor ID 10415

VSA Type 318

AVP Type DIAMURI

AVP Flag M

3GPP-CAMEL-Charging-Info

This AVP contains the Customized Application for Mobile Enhanced Logic (CAMEL) charging information.

Vendor ID 10415

VSA Type 24

AVP Type UTF8STRING

AVP Flag N/A

3GPP-CF-IPv6-Address

3GPP-CF-IPv6-Address

Vendor ID 10415

VSA Type 14

AVP Type OCTETSTRING

AVP Flag M

3GPP-CG-Address

This AVP contains address of the Charging Gateway.

Vendor ID 10415

VSA Type 4

AVP Type OCTETSTRING

AVP Flag M

3GPP-Called-Station-Id

This AVP contains the Layer 2 addresses that the user contacted in the request.

Vendor ID 10415

VSA Type 30

AVP Type OCTETSTRING

AVP Flag N/A

3GPP-Charging-Characteristics

This AVP contains the charging characteristics for this PDP context received in the Create PDP Context Request Message.

Vendor ID 10415

VSA Type 13

AVP Type UTF8STRING

AVP Flag M

3GPP-Charging-Id

This AVP contains the Charging ID for this PDP context (this together with the GGSN-Address constitutes a unique identifier for the PDP context).

Vendor ID 10415

VSA Type 2

AVP Type UINT32

AVP Flag M

3GPP-GGSN-Address

This AVP contains the IP address of the GGSN used by the GTP control plane for context establishment. It is the same as the GGSN IP address used in the G-CDRs.

Vendor ID 10415

VSA Type 7

AVP Type OCTETSTRING

AVP Flag M

3GPP-GGSN-MCC-MNC

This AVP contains MCC-MNC of the network that the GGSN belongs to.

Vendor ID 10415

VSA Type 9

AVP Type UTF8STRING

AVP Flag M

3GPP-GPRS-QoS-Negotiated-Profile

This AVP contains QoS profile applied by GGSN.

Vendor ID 10415

VSA Type 5

AVP Type UTF8STRING

AVP Flag M

3GPP-IMEISV

This AVP contains International Mobile Equipment ID (IMEI) and its Software Version (SV).

Vendor ID 10415

VSA Type 20

AVP Type OCTETSTRING

AVP Flag M

3GPP-IMSI

This AVP contains an IMSI of the user.

Vendor ID 10415

VSA Type 1

AVP Type UTF8STRING

AVP Flag M

3GPP-IMSI-MCC-MNC

This AVP contains MCC and MNC extracted from the user's IMSI (first 5 or 6 digits, as applicable from the presented IMSI).

Vendor ID 10415

VSA Type 8

AVP Type UTF8STRING

AVP Flag M

3GPP-MS-TimeZone

This AVP contains the Mobile Station Time Zone.

Vendor ID 10415

VSA Type 23

AVP Type OCTETSTRING

AVP Flag M

3GPP-NSAPI

This AVP contains a particular PDP context for the associated PDN and MSISDN/IMSI from creation to deletion.

Vendor ID 10415

VSA Type 10

AVP Type UTF8STRING

AVP Flag M

3GPP-PDP-Type

This AVP contains type of the PDP context.

Vendor ID 10415

VSA Type 3

AVP Type ENUM

Supported enumerated value(s):

0 IPv4

1 PPP

2 IPv6

3 IPv4v6

AVP Flag M

3GPP-Quota-Consumption-Time

This AVP contains the idle traffic threshold time, in seconds.

Vendor ID 10415

VSA Type 881

AVP Type UINT32

AVP Flag M

3GPP-Quota-Holding-Time

This AVP contains the quota holding time, in seconds. The client starts the quota holding timer when quota consumption ceases. This is always when traffic ceases, i.e. the timer is re-started at the end of each packet.

The Credit Control Client deems a quota to have expired when no traffic associated with the quota is observed for the value indicated by this AVP.

Vendor ID 10415

VSA Type 871

AVP Type UINT32

AVP Flag M

3GPP-RAT-Type

This AVP indicates which Radio Access Technology (RAT) is currently serving the UE.

Vendor ID 10415

VSA Type 21

AVP Type OCTETSTRING

AVP Flag M

3GPP-RAT-Type-Enum

This AVP contains type of Radio Access Technology (RAT).

Vendor ID 10415

VSA Type 21

AVP Type ENUM

Supported enumerated value(s):

1 UTRAN

2 GERAN

3 WLAN

4 GAN

5 HSPA

6 EUTRAN

7 VIRTUAL

8 NB-IOT

102 3GPP2_eHRPD

33 CDMA_1XRTT

59 CDMA_EVDO

64 CDMA_EVDO_REVA

AVP Flag M

3GPP-Reporting-Reason

This AVP contains the reason for usage reporting for one or more types of quota for a particular category.

Vendor ID 10415

VSA Type 872

AVP Type ENUM

Supported enumerated value(s):

0 THRESHOLD

1 QHT

2 FINAL

3 QUOTA_EXHAUSTED

4 VALIDITY_TIME

5 OTHER_QUOTA_TYPE

6 RATING_CONDITION_CHANGE

7 FORCED_REAUTHORIZATION

AVP Flag M

3GPP-SGSN-Address

This AVP contains the address of the SGSN used by the GTP control plane for the handling of control messages. It may be used to identify the PLMN to which the user is attached.

Vendor ID 10415

VSA Type 6

AVP Type OCTETSTRING

AVP Flag M

3GPP-SGSN-IPv6-Address

This AVP contains the IPv6 address of the SGSN used by the GTP control plane for the handling of control messages. It may be used to identify the PLMN to which the user is attached.

Vendor ID 10415

VSA Type 15

AVP Type OCTETSTRING

AVP Flag M

3GPP-SGSN-MCC-MNC

This AVP contains the MCC-MNC of the network the SGSN belongs to.

Vendor ID 10415

VSA Type 18

AVP Type UTF8STRING

AVP Flag M

3GPP-Selection-Mode

This AVP contains the selection mode for this PDP context received in the Create PDP Context Request Message.

Vendor ID 10415

VSA Type 12

AVP Type UTF8STRING

AVP Flag M

3GPP-Session-Stop-Indicator

This AVP indicates to the AAA server that the last PDP context of a session is released and that the PDP session has been terminated.

Vendor ID 10415

VSA Type 11

AVP Type OCTETSTRING

AVP Flag M

3GPP-Time-Quota-Threshold

This AVP contains the time quota threshold value, in seconds.

Vendor ID 10415

VSA Type 868

AVP Type UINT32

AVP Flag M

3GPP-Trigger-Type

This AVP contains information about type of trigger, for example, CHANGE_IN_SGSN_IP_ADDRESS, CHANGE_IN_QOS, etc. for activation of the associated action.

Vendor ID 10415

VSA Type 870

AVP Type ENUM

Supported enumerated value(s):

1 CHANGE_IN_SGSN_IP_ADDRESS

2 CHANGEINQOS_ANY

3 CHANGEINLOCATION_ANY

4 CHANGEINRAT

5 CHANGEINTIMEZONE

10 CHANGEINQOS_TRAFFIC_CLASS

11 CHANGEINQOS_RELIABILITY_CLASS

12 CHANGEINQOS_DELAY_CLASS

13 CHANGEINQOS_PEAK_THROUGHPUT

14 CHANGEINQOS_PRECEDENCE_CLASS

15 CHANGEINQOS_MEAN_THROUGHPUT

16 CHANGEINQOS_MAXIMUM_BIT_RATE_FOR_UPLINK

17 CHANGEINQOS_MAXIMUM_BIT_RATE_FOR_DOWNLINK

18 CHANGEINQOS_RESIDUAL_BER

19 CHANGEINQOS_SDU_ERROR_RATIO

20 CHANGEINQOS_TRANSFER_DELAY

21 CHANGEINQOS_TRAFFIC_HANDLING_PRIORITY

22 CHANGEINQOS_GUARANTEED_BIT_RATE_FOR_UPLINK

23 CHANGEINQOS_GUARANTEED_BIT_RATE_FOR_DOWNLINK

30 CHANGEINLOCATION_MCC

31 CHANGEINLOCATION_MNC

32 CHANGEINLOCATION_RAC

33 CHANGEINLOCATION_LAC

34 CHANGEINLOCATION_CellId

61 CHANGE_IN_SERVING_NODE

AVP Flag M

3GPP-Unit-Quota-Threshold

This AVP contains the unit quota threshold value, in service specific units.

Vendor ID 10415

VSA Type 1226

AVP Type UINT32

AVP Flag M

3GPP-User-Data

This AVP contains the user data required to give service to a user.

Vendor ID 10415

VSA Type 606

AVP Type OCTETSTRING

AVP Flag M

3GPP-User-Location-Info

This AVP contains information about the user's current geographical location.

Vendor ID 10415

VSA Type 22

AVP Type UTF8STRING

AVP Flag M

3GPP-Volume-Quota-Threshold

This AVP contains the volume quota threshold value, in octets.

Vendor ID 10415

VSA Type 869

AVP Type UINT32

AVP Flag M

3GPP-WLAN-APN-Id

This AVP contains the W-APN for which the user will have services available.

Vendor ID 10415

VSA Type 11003

AVP Type OCTETSTRING

AVP Flag M

3GPP2-Allowed-Persistent-TFTS

Maximum allowed persistent TFTs.

Vendor ID 5535

VSA Type 6083

AVP Type UINT32

AVP Flag M

3GPP2-BSID

This AVP indicates the BSID of where the UE is currently located (for example, Cell-Id, SID, NID).

Vendor ID 5535

VSA Type 9010

AVP Type OCTETSTRING

AVP Flag M

3GPP2-Correlation-Id

This AVP contains correlation ID in 3GPP2 networks.

Vendor ID 5535

VSA Type 6071

AVP Type OCTETSTRING

AVP Flag M

3GPP2-Information

3GPP2-Information

Vendor ID 5535

VSA Type 6077

AVP Type GROUPED

Supported group value(s):

[SUBSCRIBER_PRIORITY]

[AUTH_PROFILE_ID_FORWARD]

[AUTH_PROFILE_ID_REVERSE]

[AUTH_PROFILE_ID_BI_DIRECTION]

AVP Flag M

3GPP2-Inter-User-Priority

This AVP indicates the inter-user priority that may be assigned to a user's packet flow on the main service connection/main link flow.

Vendor ID 5535

VSA Type 139

AVP Type UINT32

AVP Flag M

3GPP2-MEID

This AVP contains the International Mobile Equipment Identity.

Vendor ID 10415

VSA Type 1471

AVP Type OCTETSTRING

AVP Flag M

3GPP2-Max-Auth-Aggr-BW-BET

This AVP contains the maximum allowed bandwidth for best effort link.

Vendor ID 5535

VSA Type 130

AVP Type UINT32

AVP Flag M

3GPP2-Max-Inst-Per-Service-Option

This AVP indicates the maximum service option instances.

Vendor ID 5535

VSA Type 6082

AVP Type UINT32

AVP Flag M

3GPP2-Max-Per-Flow-Priority-User

This AVP contains the per flow priority for the user.

Vendor ID 5535

VSA Type 6088

AVP Type UINT32

AVP Flag M

3GPP2-Max-Svc-Inst-Link-Flow-Total

This AVP contains the maximum allowed link flows per service instance.

Vendor ID 5535

VSA Type 6084

AVP Type UINT32

AVP Flag M

3GPP2-RAT-Type

3GPP2-RAT-Type

Vendor ID 5535

VSA Type 1001

AVP Type ENUM

Supported enumerated value(s):

0 3G1X

1 HRPD

2 WLAN

AVP Flag M

3GPP2-RP-Session-ID

3GPP2-RP-Session-ID

Vendor ID 5535

VSA Type 6074

AVP Type OCTETSTRING

AVP Flag M

3GPP2-Service-Option

This AVP specifies the authorized packet data service option number.

Vendor ID 5535

VSA Type 16

AVP Type UINT32

AVP Flag M

3GPP2-Service-Option-Profile

This AVP specifies the authorized packet data service options and the maximum number of simultaneous service connections (for cdma2000 1x) or the total maximum number of simultaneous link flows (for HRPD). For cdma2000 1x, it also specifies the authorized maximum number of simultaneous service connections of the given service option number (n). This AVP may appear in a RADIUS Access-Accept message.

Vendor ID 5535

VSA Type 74

AVP Type GROUPED

Supported group value(s):

[3GPP2_SERVICE_OPTION]

[3GPP2_MAX_INST_PER_SERVICE_OPTION]

AVP Flag M

3GPP2-Serving-PCF

This AVP specifies the IP address of the serving PCF, that is, the PCF in the serving RAN.

Vendor ID 5535

VSA Type 6073

AVP Type ADDRESS

AVP Flag M

3GPP2-User-Zone

This AVP indicates the Tiered Services user zone.

Vendor ID 5535

VSA Type 6075

AVP Type OCTETSTRING

AVP Flag M

A-MSISDN

A-MSISDN

Vendor ID 10415

VSA Type 1643

AVP Type OCTETSTRING

AVP Flag N/A

AAA-Failure-Indication

AAA-Failure-Indication

Vendor ID 10415

VSA Type 1518

AVP Type UINT32

AVP Flag N/A

AAR-Flags

AAR-Flags

Vendor ID 10415

VSA Type 1539

AVP Type UINT32

AVP Flag N/A

Absent-User-Diagnostic-SM

Absent-User-Diagnostic-SM

Vendor ID 10415

VSA Type 3322

AVP Type UINT32

AVP Flag M

ACL-Name

ACL-Name

Vendor ID 9

VSA Type 131145

AVP Type OCTETSTRING

AVP Flag M

ACL-Number

ACL-Number

Vendor ID 9

VSA Type 131144

AVP Type UINT32

AVP Flag N/A

AF-Application-Identifier

This AVP contains information that identifies particular service that the Application Function (AF) service session belongs to.

Vendor ID 10415

VSA Type 504

AVP Type OCTETSTRING

AVP Flag M

AF-Charging-Identifier

This AVP contains the Application Function (AF) charging identifier that may be used in charging correlation.

Vendor ID 10415

VSA Type 505

AVP Type OCTETSTRING

AVP Flag M

AF-Correlation-Information

This grouped AVP contains the AF Charging Identifier (ICID for IMS) and associated flow identifiers generated by the AF and received by GGSN over Rx/Gx.

Vendor ID 10415

VSA Type 1276

AVP Type GROUPED

Supported group value(s):

[AF_CHARGING_IDENTIFIER]

[FLOWS]

AVP Flag M

AF-Signalling-Protocol

AF-Signalling-Protocol

Vendor ID 10415

VSA Type 529

AVP Type ENUM

Supported enumerated value(s):

0 NO_INFORMATION

1 SIP

AVP Flag N/A

AGW-IP-Address

This AVP contains the IPv4 address of the Access Gateway (AGW) in IPv4 decimal notation format.

Vendor ID 5535

VSA Type 1003

AVP Type OCTETSTRING

AVP Flag M

AGW-IPv6-Address

This AVP contains the IPv6 address of the Access Gateway (AGW) in IPv6 colon notation format.

Vendor ID 5535

VSA Type 1004

AVP Type OCTETSTRING

AVP Flag M

AGW-MCC-MNC

This AVP contains the Mobile Country Code (MCC) and Mobile Network Code (MNC) of the AGW.

Vendor ID 5535

VSA Type 1002

AVP Type OCTETSTRING

AVP Flag M

AIR-Flags

These flags are used by the MME or SGSN to retrieve the UE Usage Type information from the HSS during ATTACH and TAU procedures.

Vendor ID 10415

VSA Type 1679

AVP Type UINT32

AVP Flag M

AMBR

This AVP contains the UE Aggregate Maximum Bit Rate (AMBR) of the user. This will be present only if the non-3GPP access network is trusted.The Rf interface supports AMBR reporting for non-guaranteed bit rate (non-GBR) bearers in the Traffic-Data-Volumes (TDV) Grouped AVP.

Vendor ID 10415

VSA Type 1435

AVP Type GROUPED

Supported group value(s):

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

[EXTENDED-MAX-REQUESTED-BW-UL]

[EXTENDED-MAX-REQUESTED-BW-DL]

AVP Flag M

AN-GW-Address

This AVP contains address of the Access Network Gateway.

Vendor ID 10415

VSA Type 1050

AVP Type ADDRESS

AVP Flag N/A

AN-GW-Status

This AVP indicates status of the Access Network Gateway. This is used to inform PCRF that S-GW is down.

Vendor ID 10415

VSA Type 2811

AVP Type ENUM

Supported enumerated value(s):

0 AN_GW_FAILED

AVP Flag N/A

AN-Trusted

This AVP contains the 3GPP AAA Server's decision on handling the non-3GPP access network trusted or non-trusted.

Vendor ID 10415

VSA Type 1503

AVP Type ENUM

Supported enumerated value(s):

0 TRUSTED

1 UNTRUSTED

AVP Flag M

ANID

This AVP contains the Access Network Identifier (ANID) used for key derivation at the HSS.

Vendor ID 10415

VSA Type 1504

AVP Type UTF8STRING

AVP Flag M

APN-Aggregate-Max-Bitrate-DL

This AVP contains the maximum aggregate bit rate in bits per seconds for the downlink direction across all non-GBR bearers related with the same APN.

Vendor ID 10415

VSA Type 1040

AVP Type UINT32

AVP Flag M

APN-Aggregate-Max-Bitrate-UL

This AVP contains the maximum aggregate bit rate in bits per seconds for the uplink direction across all non-GBR bearers related with the same APN.

Vendor ID 10415

VSA Type 1041

AVP Type UINT32

AVP Flag M

APN-Authorized

APN-Authorized

Vendor ID 10415

VSA Type 6090

AVP Type GROUPED

Supported group value(s):

[CONTEXT_IDENTIFIER]

[CALLED_STATION_ID]

[APN_BARRING_TYPE]

[FRAMED_IP_ADDRESS]

[FRAMED_IPV6_PREFIX]

[MIP6_AGENT_INFO]

[PDN_GW_ALLOCATION_TYPE]

[VPLMN_DYNAMIC_ADDRESS_ALLOWED]

[EPS_SUBSCRIBED_QOS_PROFILE]

AVP Flag M

APN-Barring-Type

Allows operator to disable all APNs for a subscriber at one time.

Vendor ID 10415

VSA Type 6091

AVP Type ENUM

Supported enumerated value(s):

0 NON_3GPP_APNS_ENABLE

1 NON_3GPP_APNS_DISABLE

AVP Flag M

APN-Configuration

This AVP contains information related to the user's subscribed APN configurations.

Vendor ID 10415

VSA Type 1430

AVP Type GROUPED

Supported group value(s):

[CONTEXT_IDENTIFIER]

[PDN_TYPE]

[SERVICE_SELECTION]

[EPS_SUBSCRIBED_QOS_PROFILE]

[VPLMN_DYNAMIC_ADDRESS_ALLOWED]

[MIP6_AGENT_INFO]

[VISITED_NETWORK_IDENTIFIER]

[PDN_GW_ALLOCATION_TYPE]

[3GPP_CHARGING_CHARACTERISTICS]

[AMBR]

[SERVED_PARTY_IP_ADDRESS]

[SPECIFIC_APN_INFO]

[APN_OI_REPLACEMENT]

[RESTORATION_PRIORITY]

AVP Flag M

APN-Configuration-Profile

This AVP contains information related to the user's subscribed APN configurations for EPS.

Vendor ID 10415

VSA Type 1429

AVP Type GROUPED

Supported group value(s):

[CONTEXT_IDENTIFIER]

[ALL_APN_CONFIGURATIONS_INCLUDED_INDICATOR]

[APN_CONFIGURATION]

AVP Flag M

APN-OI-Replacement

This AVP contains the domain name to replace the APN OI when constructing the PDN GW FQDN upon which to perform a DNS resolution.

Vendor ID 10415

VSA Type 1427

AVP Type UTF8STRING

AVP Flag M

ARP

This AVP contains Allocation and Retention Priority (ARP) for the corresponding APN configuration.

Vendor ID 10415

VSA Type 6039

AVP Type UINT32

AVP Flag M

AUTN

This AVP contains the Authentication Token AUTN (EAP Authentication Vector).

Vendor ID 10415

VSA Type 1449

AVP Type OCTETSTRING

AVP Flag M

Abort-Cause

This AVP contains the cause of a session abort request, or of an RAR indicating a PDP context release.

Vendor ID 10415

VSA Type 500

AVP Type ENUM

Supported enumerated value(s):

0 BEARER_RELEASED

1 INSUFFICIENT_SERVER_RESOURCES

2 INSUFFICIENT_BEARER_RESOURCES

4 SPONSORED_DATA_CONNECTIVITY_DISALLOWED

AVP Flag M

Acceptable-Service-Info

This AVP contains the maximum bandwidth for an AF session and/or for specific media components that will be authorized by the PCRF.

Vendor ID 10415

VSA Type 526

AVP Type GROUPED

Supported group value(s):

[MEDIA_COMPONENT_DESCRIPTION]

[MAX_REQUESTED_BANDWIDTH_DL]

[MAX_REQUESTED_BANDWIDTH_UL]

AVP Flag M

Access-Network-Charging-Address

This AVP contains the IP address of the network entity within the access network performing charging (for example, the GGSN IP address).

Vendor ID 10415

VSA Type 501

AVP Type ADDRESS

AVP Flag M

Access-Network-Charging-Identifier

This AVP contains a charging identifier (for example, GCID) within the "Access-Network-Charging-Identifier-Value" AVP along with information about the flows transported within the corresponding bearer within the Flows AVP.

Vendor ID 10415

VSA Type 502

AVP Type GROUPED

Supported group value(s):

[ACCESS_NETWORK_CHARGING_IDENTIFIER_VALUE]

[FLOWS]

AVP Flag M

Access-Network-Charging-Identifier-Gx

The PCRF may use this information for charging correlation towards the AF.

Vendor ID 10415

VSA Type 1022

AVP Type GROUPED

Supported group value(s):

[ACCESS_NETWORK_CHARGING_IDENTIFIER_VALUE]

[CHARGING_RULE_BASE_NAME]

[CHARGING_RULE_NAME]

AVP Flag M

Access-Network-Charging-Identifier-Ty

This AVP contains a charging identifier generated by the AGW within the "Access-Network-Charging-Identifier-Value" AVP and the related PCC rule name(s) within the "Charging-Rule-Name" AVP(s). The PCRF may use this information for charging correlation towards the AF.

Vendor ID 10415

VSA Type 1022

AVP Type GROUPED

Supported group value(s):

[ACCESS_NETWORK_CHARGING_IDENTIFIER_VALUE]

[CHARGING_RULE_BASE_NAME]

[CHARGING_RULE_NAME]

AVP Flag M

Access-Network-Charging-Identifier-Value

This AVP contains a charging identifier. For example, GCID.

Vendor ID 10415

VSA Type 503

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Charging-Physical-Access-Id

This AVP contains the identifier for the physical device the user is connected for charging.

Vendor ID 8164

VSA Type 1472

AVP Type GROUPED

Supported group value(s):

[ACCESS_NETWORK_CHARGING_PHYSICAL_ACCESS_ID_VALUE]

[ACCESS_NETWORK_CHARGING_PHYSICAL_ACCESS_ID_REALM]

AVP Flag M

Access-Network-Charging-Physical-Access-Id-Realm

This AVP contains the domain of the physical device the user is connected for charging.

Vendor ID 8164

VSA Type 1474

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Charging-Physical-Access-Id-Value

This AVP contains the identifier of the physical device the user is connected for charging.

Vendor ID 8164

VSA Type 1473

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Info

Access-Network-Info

Vendor ID 10415

VSA Type 1526

AVP Type GROUPED

Supported group value(s):

[SSID]

[BSSID]

[LOCATION_INFORMATION_RADIUS]

[LOCATION_DATA]

[OPERATOR_NAME]

[LOGICAL_ACCESS_ID]

AVP Flag N/A

Access-Network-Information

This AVP contains access network information, such as the information included in the SIP "P-header P-Access-Network-Information".

Vendor ID 0

VSA Type 1263

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Physical-Access-Id

This AVP contains an identifier that represents the topological segment hosting the AT within the serving IP-CAN.

Vendor ID 5535

VSA Type 1472

AVP Type GROUPED

Supported group value(s):

[ACCESS_NETWORK_PHYSICAL_ACCESS_ID_VALUE]

[ACCESS_NETWORK_PHYSICAL_ACCESS_ID_REALM]

AVP Flag M

Access-Network-Physical-Access-Id-Realm

Access-Network-Physical-Access-Id-Realm

Vendor ID 5535

VSA Type 1474

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Physical-Access-Id-Value

Access-Network-Physical-Access-Id-Value

Vendor ID 5535

VSA Type 1473

AVP Type OCTETSTRING

AVP Flag M

Access-Network-Type

This AVP contains the type of access network over which IP connectivity is provided to the user equipment.

Vendor ID 0

VSA Type 306

AVP Type GROUPED

Supported group value(s): none

AVP Flag M

Access-Restriction-Data

This AVP contains a bit mask indicating the services of a subscriber, that are barred by the operator.

Vendor ID 10415

VSA Type 1426

AVP Type UINT32

AVP Flag M

Account-Expiration

Account-Expiration

Vendor ID 10415

VSA Type 2309

AVP Type TIME

AVP Flag M

Accounting

Accounting

Vendor ID 9

VSA Type 131126

AVP Type GROUPED

Supported group value(s):

[ACCOUNTING_CUSTOMER_STRING]

AVP Flag M

Accounting-Customer-String

Accounting-Customer-String

Vendor ID 9

VSA Type 131127

AVP Type OCTETSTRING

AVP Flag M

Accounting-EAP-Auth-Method

This AVP indicates the EAP method(s) used to authenticate the user.

Vendor ID 0

VSA Type 465

AVP Type UINT64

AVP Flag N/A

Accounting-Input-Octets

This AVP contains the number of octets in IP packets received from the user.

Vendor ID 0

VSA Type 363

AVP Type UINT64

AVP Flag M

Accounting-Input-Packets

This AVP contains the number of IP packets received from the user.

Vendor ID 0

VSA Type 365

AVP Type UINT64

AVP Flag M

Accounting-Output-Octets

This AVP contains the number of octets in IP packets sent to the user.

Vendor ID 0

VSA Type 364

AVP Type UINT64

AVP Flag M

Accounting-Output-Packets

This AVP contains the number of IP packets sent to the user.

Vendor ID 0

VSA Type 366

AVP Type UINT64

AVP Flag M

Accounting-PCC-R3-P-Capability

This AVP indicates the accounting capabilities in a CCR that are supported by the sender. CCA will not include this AVP.

Vendor ID 24757

VSA Type 403

AVP Type ENUM

Supported enumerated value(s):

0 Online

1 Offline

2 Online_and_Offline

AVP Flag M

Accounting-Record-Number

This AVP contains this record within one session.

Vendor ID 0

VSA Type 485

AVP Type UINT32

AVP Flag M

Accounting-Record-Type

This AVP contains the type of accounting record being sent.

Vendor ID 0

VSA Type 480

AVP Type ENUM

Supported enumerated value(s):

1 EVENT_RECORD

2 START_RECORD

3 INTERIM_RECORD

4 STOP_RECORD

AVP Flag M

Accounting-Sub-Session-Id

This AVP contains the accounting sub-session identifier.

Vendor ID 0

VSA Type 287

AVP Type UINT64

AVP Flag M

Acct-Application-Id

Advertise support of the Accounting portion of an application.

Vendor ID 0

VSA Type 259

AVP Type UINT32

AVP Flag M

Acct-Interim-Interval

This AVP is sent from the Diameter Home Authorization Server to the Diameter client.

Vendor ID 0

VSA Type 85

AVP Type UINT32

AVP Flag M

Acct-Multi-Session-Id

Link multiple related accounting sessions.

Vendor ID 0

VSA Type 50

AVP Type UTF8STRING

AVP Flag M

Acct-Realtime-Required

This AVP is used to decide the action to be performed when sending of accounting records to the accounting server has been temporarily prevented due to network problem.

Vendor ID 0

VSA Type 483

AVP Type ENUM

Supported enumerated value(s):

1 DELIVER_AND_GRANT

2 GRANT_AND_STORE

3 GRANT_AND_LOSE

AVP Flag M

Acct-Session-Id

This AVP is only used when RADIUS/Diameter translation occurs. This AVP contains the contents of the RADIUS "Acct-Session-Id" attribute.

Vendor ID 0

VSA Type 44

AVP Type OCTETSTRING

AVP Flag M

Acct-Session-Time

This AVP indicates the length of the current session, in seconds. This AVP MUST be included in all Accounting-Request messages and MAY be present in the corresponding Accounting-Answer messages as well.

Vendor ID 10415

VSA Type 46

AVP Type UINT32

AVP Flag M

Accuracy

Accuracy

Vendor ID 10415

VSA Type 3137

AVP Type UINT32

AVP Flag M

Accuracy-Fulfilment-Indicator

Accuracy-Fulfilment-Indicator

Vendor ID 10415

VSA Type 2513

AVP Type ENUM

Supported enumerated value(s):

0 REQUESTED_ACCURACY_FULFILLED

1 REQUESTED_ACCURACY_NOT_FULFILLED

AVP Flag M

Active-APN

This AVP indicates the active APN.

Vendor ID 10415

VSA Type 1612

AVP Type GROUPED

Supported group value(s):

[CONTEXT_IDENTIFIER]

[SERVICE_SELECTION]

[MIP6_AGENT_INFO]

[VISITED_NETWORK_IDENTIFIER]

[SPECIFIC_APN_INFO]

AVP Flag M

Additional-Context-Identifier

Additional-Context-Identifier

Vendor ID 10415

VSA Type 1683

AVP Type UINT32

AVP Flag N/A

Additional-MBMS-Trace-Info

This AVP contains additional information such as Trace-Reference, Triggering Events in BMSC, List of Interfaces in BMSC, Trace Activity Control, etc.

Vendor ID 10415

VSA Type 910

AVP Type OCTETSTRING

AVP Flag M

Address-Realm

This AVP contains the realm that the user belongs to.

Vendor ID 0

VSA Type 1005

AVP Type OCTETSTRING

AVP Flag M

Advice-Of-Charge

Advice-Of-Charge

Vendor ID 9

VSA Type 131097

AVP Type GROUPED

Supported group value(s):

[APPEND_URL]

[CONFIRM_TOKEN]

AVP Flag M

Age-Of-Location-Estimate

This AVP indicates how long ago the location estimate was obtained, in minutes.

Vendor ID 10415

VSA Type 2514

AVP Type UINT32

AVP Flag M

Age-Of-Location-Information

Age-Of-Location-Information

Vendor ID 10415

VSA Type 1611

AVP Type UINT32

AVP Flag N/A

Aggr-Prefix-Len

Aggr-Prefix-Len

Vendor ID 9

VSA Type 131262

AVP Type UINT32

AVP Flag N/A

Alert-Reason

This AVP indicates that the mobile subscriber is present or the MS has available memory.

Vendor ID 10415

VSA Type 1434

AVP Type ENUM

Supported enumerated value(s):

0 UE_PRESENT

1 UE_MEMORY_AVAILABLE

AVP Flag M

All-APN-Configurations-Included-Indicator

This AVP indicates addition/modification/deletion of APN configuration for MME/SGSN service.

Vendor ID 10415

VSA Type 1428

AVP Type ENUM

Supported enumerated value(s):

0 ALL_APN_CONFIGURATIONS_INCLUDED

1 MODIFIED_ADDED_APN_CONFIGURATIONS_INCLUDED

AVP Flag M

Allocation-Retention-Priority

Allocation-Retention-Priority

Vendor ID 10415

VSA Type 1034

AVP Type GROUPED

Supported group value(s):

[PRIORITY_LEVEL]

[PRE_EMPTION_CAPABILITY]

[PRE_EMPTION_VULNERABILITY]

AVP Flag M

Alternative-APN

This AVP contains the value of a new APN. BM-SC only includes it if the UE must use a different APN for the MBMS PDP Context from the one used in the Join message.

Vendor ID 10415

VSA Type 905

AVP Type UTF8STRING

AVP Flag M

Anchor-Data-Path-Address

This AVP contains the IP address of the serving SFA and is included in the CCR message.

Vendor ID 24757

VSA Type 401

AVP Type OCTETSTRING

AVP Flag M

Append-URL

Append-URL

Vendor ID 9

VSA Type 131098

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_APPEND_URL

1 ENABLE_APPEND_URL

AVP Flag M

Application-Detection-Information

This AVP is used to report once the start/stop of the application traffic, defined by TDF-Application-Identifier, has been detected, in case PCRF has subscribed for APPLICATION_START/APPLICATION_STOP Event-Triggers, unless a request to mute such a notification (Mute-Notification AVP) is part of the corresponding Charging-Rule-Definition AVP to the PCEF.

Vendor ID 10415

VSA Type 1098

AVP Type GROUPED

Supported group value(s):

[TDF_APPLICATION_IDENTIFIER]

[TDF_APPLICATION_INSTANCE_IDENTIFIER]

[FLOW_INFORMATION]

AVP Flag N/A

Application-Provided-Called-Party-Address

This AVP holds the called party number (SIP URL, E.164), if it is determined by an application server.

Vendor ID 10415

VSA Type 837

AVP Type UTF8STRING

AVP Flag M

Application-Server

This AVP contains the SIP URL(s) of the AS(s) addressed during the session.

Vendor ID 10415

VSA Type 836

AVP Type UTF8STRING

AVP Flag M

Application-Server-Information

This AVP contains the list of application servers visited on the ISC interface.

Vendor ID 10415

VSA Type 850

AVP Type GROUPED

Supported group value(s):

[APPLICATION_SERVER]

[APPLICATION_PROVIDED_CALLED_PARTY_ADDRESS]

AVP Flag M

Application-Service-Provider-Identity

Application-Service-Provider-Identity

Vendor ID 0

VSA Type 532

AVP Type UTF8STRING

AVP Flag N/A

Associated-Identities

This AVP contains the private user identities associated to an IMS subscription.

Vendor ID 10415

VSA Type 632

AVP Type GROUPED

Supported group value(s):

[USER_NAME]

AVP Flag M

Associated-Registered-Identities

This AVP contains the Private User Identities registered with the Public User Identity received in the request command.

Vendor ID 10415

VSA Type 647

AVP Type GROUPED

Supported group value(s):

[USER_NAME]

AVP Flag N/A

Associated-URI

This AVP contains a non-barred public user identity (SIP URI or TEL URI) associated to the the public user identity under registration.

Vendor ID 10415

VSA Type 856

AVP Type UTF8STRING

AVP Flag M

Attribute-String

Attribute-String

Vendor ID 9

VSA Type 131092

AVP Type UTF8STRING

AVP Flag M

Auth-Application-Id

This AVP contains the Diameter supported authorization application ID.

Vendor ID 0

VSA Type 258

AVP Type UINT32

AVP Flag M

Auth-Grace-Period

This AVP contains the number of seconds the Diameter server will wait following the expiration of the Authorization-Lifetime AVP before cleaning up resources for the session.

Vendor ID 0

VSA Type 276

AVP Type UINT32

AVP Flag M

Auth-Profile-Id-Bi-Direction

3GPP2 Auth-Profile-Id-Bi-Direction

Vendor ID 5535

VSA Type 6081

AVP Type UINT32

AVP Flag M

Auth-Profile-Id-Forward

3GPP2 Auth-Profile-Id-Forward

Vendor ID 5535

VSA Type 6079

AVP Type UINT32

AVP Flag M

Auth-Profile-Id-Reverse

3GPP2 Auth-Profile-Id-Reverse

Vendor ID 5535

VSA Type 6080

AVP Type UINT32

AVP Flag M

Auth-Request-Type

This AVP contains the authorization request type to inform the peers whether a user is to be authenticated only, authorized only, or both.

Vendor ID 0

VSA Type 274

AVP Type ENUM

Supported enumerated value(s):

1 AUTHENTICATE_ONLY

2 AUTHORIZE_ONLY

3 AUTHORIZE_AUTHENTICATE

AVP Flag M

Auth-Session-State

This AVP indicates whether state is maintained for a particular session.

Vendor ID 0

VSA Type 277

AVP Type ENUM

Supported enumerated value(s):

0 STATE_MAINTAINED

1 NO_STATE_MAINTAINED

AVP Flag M

Authentication-Info

This AVP contains the Authentication Vectors.

Vendor ID 10415

VSA Type 6016

AVP Type GROUPED

Supported group value(s):

[EPS_VECTOR]

[UMTS_VECTOR]

[GERAN_VECTOR]

AVP Flag M

Authorised-QoS

This AVP contains the authorized QoS.

Vendor ID 0

VSA Type 849

AVP Type UTF8STRING

AVP Flag M

Authorization-Lifetime

This AVP contains the maximum number of seconds of service to be provided to the user before the user is to be re-authenticated and/or re- authorized.

Vendor ID 0

VSA Type 291

AVP Type UINT32

AVP Flag M

Authorization-Token

This AVP contains the authorization token defined in RFC 3520.

Vendor ID 10415

VSA Type 506

AVP Type OCTETSTRING

AVP Flag M

Authorized-QoS

This AVP carries the authorized QoS from the E-PDF to the IPC/GGSN.

Vendor ID 10415

VSA Type 1016

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS]

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

AVP Flag M

BCID

This AVP contains the PacketCable 1.5 Billing Correlation ID as generated for a SIP session. This value is copied from the BCID field in the P-DCS-LAES header.

Vendor ID 4491

VSA Type 200

AVP Type UTF8STRING

AVP Flag M

BSID

BSID

Vendor ID 0

VSA Type 10003

AVP Type OCTETSTRING

AVP Flag M

BSSGP-Cause

BSSGP-Cause

Vendor ID 10415

VSA Type 4309

AVP Type UINT32

AVP Flag M

BSSID

BSSID

Vendor ID 10415

VSA Type 2716

AVP Type UTF8STRING

AVP Flag M

Bearer-Control-Mode

This AVP indicates the preferred Bearer Control Mode.

Vendor ID 10415

VSA Type 1023

AVP Type ENUM

Supported enumerated value(s):

0 UE_ONLY

1 RESERVED

2 UE_NW

AVP Flag M

Bearer-Identifier

This AVP indicates the bearer to which the information belongs.

Vendor ID 10415

VSA Type 1020

AVP Type OCTETSTRING

AVP Flag M

Bearer-Operation

This AVP indicates the bearer event that causes the request for PCC rules.

Vendor ID 10415

VSA Type 1021

AVP Type ENUM

Supported enumerated value(s):

0 TERMINATION

1 ESTABLISHMENT

2 MODIFICATION

AVP Flag M

Bearer-Service

This AVP holds the used bearer service for the application, for example, PSTN leg in the case of voice.

Vendor ID 10415

VSA Type 854

AVP Type OCTETSTRING

AVP Flag M

Bearer-Usage

This AVP indicates how the bearer is being used, for example, whether it is used as a dedicated IMS signaling context or not.

Vendor ID 10415

VSA Type 1000

AVP Type ENUM

Supported enumerated value(s):

0 GENERAL

1 IMS_SIGNALLING

2 DEDICATED

AVP Flag M

Billing-Plan-Definition

Billing-Plan-Definition

Vendor ID 9

VSA Type 131079

AVP Type GROUPED

Supported group value(s):

[BILLING_PLAN_NAME]

[ONLINE]

[OFFLINE]

[VIRTUAL_ONLINE]

[USER_IDLE_TIMER]

[USER_IDLE_POD]

[USER_DEFAULT]

[CISCO_QOS_PROFILE_UPLINK]

[CISCO_QOS_PROFILE_DOWNLINK]

[SERVICE_INFO]

AVP Flag M

Billing-Plan-Install

Billing-Plan-Install

Vendor ID 9

VSA Type 131187

AVP Type GROUPED

Supported group value(s):

[BILLING_PLAN_DEFINITION]

AVP Flag M

Billing-Plan-Name

Billing-Plan-Name

Vendor ID 9

VSA Type 131140

AVP Type OCTETSTRING

AVP Flag M

Billing-Plan-Remove

Billing-Plan-Remove

Vendor ID 9

VSA Type 131188

AVP Type GROUPED

Supported group value(s):

[BILLING_PLAN_NAME]

AVP Flag M

Billing-Policy-Definition

Billing-Policy-Definition

Vendor ID 9

VSA Type 131074

AVP Type GROUPED

Supported group value(s):

[BILLING_POLICY_NAME]

[POLICY_MAP_NAME]

[CLASS_MAP_NAME]

[HEADER_GROUP_NAME]

[ACCOUNTING]

AVP Flag M

Billing-Policy-Install

Billing-Policy-Install

Vendor ID 9

VSA Type 131181

AVP Type GROUPED

Supported group value(s):

[BILLING_POLICY_DEFINITION]

AVP Flag M

Billing-Policy-Name

Billing-Policy-Name

Vendor ID 9

VSA Type 131088

AVP Type OCTETSTRING

AVP Flag M

Billing-Policy-Remove

Billing-Policy-Remove

Vendor ID 9

VSA Type 131182

AVP Type GROUPED

Supported group value(s):

[BILLING_POLICY_NAME]

AVP Flag M

Binding-Information

This AVP contains binding information required for NA(P)T, hosted NA(P)T, and NA(P)T-PT control.

Vendor ID 13019

VSA Type 450

AVP Type GROUPED

Supported group value(s):

[BINDING_INPUT_LIST]

[BINDING_OUTPUT_LIST]

AVP Flag N/A

Binding-Input-List

This AVP contains a list of transport addresses for which a binding is requested.

Vendor ID 13019

VSA Type 451

AVP Type GROUPED

Supported group value(s):

[V6_TRANSPORT_ADDRESS]

[V4_TRANSPORT_ADDRESS]

AVP Flag N/A

Binding-Output-List

This AVP contains a list of transport addresses which is the result of the binding operation performed by the transport plane functions.

Vendor ID 13019

VSA Type 452

AVP Type GROUPED

Supported group value(s):

[V6_TRANSPORT_ADDRESS]

[V4_TRANSPORT_ADDRESS]

AVP Flag N/A

CC-Correlation-Id

Correlates credit control requests generated for different components of the service.

Vendor ID 0

VSA Type 411

AVP Type OCTETSTRING

AVP Flag M

CC-Input-Octets

This AVP contains the number of requested, granted, or used octets that can be/have been received from the end user.

Vendor ID 0

VSA Type 412

AVP Type UINT64

AVP Flag M

CC-Money

This AVP indicates the monetary amount in the given currency.

Vendor ID 0

VSA Type 413

AVP Type GROUPED

Supported group value(s):

[UNIT_VALUE]

[CURRENCY_CODE]

AVP Flag M

CC-Output-Octets

This AVP contains the number of requested, granted, or used octets that can be/have been sent to the end user.

Vendor ID 0

VSA Type 414

AVP Type UINT64

AVP Flag M

CC-Request-Number

This AVP contains the number of Credit Control request for mapping requests and answers.

Vendor ID 0

VSA Type 415

AVP Type UINT32

AVP Flag M

CC-Request-Type

This AVP contains the type of credit-control Request/Answer message.

Vendor ID 0

VSA Type 416

AVP Type ENUM

Supported enumerated value(s):

1 INITIAL_REQUEST

2 UPDATE_REQUEST

3 TERMINATION_REQUEST

4 EVENT_REQUEST

AVP Flag M

CC-Service-Specific-Units

This AVP contains the number of service-specific units (for example, number of events, points) given in a selected service.

Vendor ID 0

VSA Type 417

AVP Type UINT64

AVP Flag M

CC-Session-Failover

This AVP contains information as to whether moving the credit-control message stream to a backup server during an ongoing credit-control session is supported.

Vendor ID 0

VSA Type 418

AVP Type ENUM

Supported enumerated value(s):

0 FAILOVER_NOT_SUPPORTED

1 FAILOVER_SUPPORTED

AVP Flag M

CC-Sub-Session-Id

This AVP contains the credit-control sub-session identifier.

Vendor ID 0

VSA Type 419

AVP Type UINT64

AVP Flag M

CC-Time

This AVP contains the length of the requested, granted, or used time, in seconds.

Vendor ID 0

VSA Type 420

AVP Type UINT32

AVP Flag M

CC-Total-Octets

This AVP contains the total number of requested, granted, or used octets regardless of the direction.

Vendor ID 0

VSA Type 421

AVP Type UINT64

AVP Flag M

CC-Unit-Type

This AVP contains the type of units.

Vendor ID 0

VSA Type 454

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

CDR-Generation-Delay

CDR-Generation-Delay

Vendor ID 9

VSA Type 131131

AVP Type UINT32

AVP Flag N/A

CDR-Time-Threshold

CDR-Time-Threshold

Vendor ID 9

VSA Type 131096

AVP Type UINT32

AVP Flag N/A

CDR-Volume-Threshold

CDR-Volume-Threshold

Vendor ID 9

VSA Type 131095

AVP Type UINT32

AVP Flag N/A

CG-Address

This AVP contains IP address of the Charging Gateway.

Vendor ID 10415

VSA Type 846

AVP Type ADDRESS

AVP Flag M

CHAP-Auth

CHAP-Authentication

Vendor ID 10415

VSA Type 402

AVP Type GROUPED

Supported group value(s):

[CHAP_IDENT]

[CHAP_RESPONSE]

AVP Flag M

CHAP-Challenge

CHAP-Challenge

Vendor ID 10415

VSA Type 60

AVP Type OCTETSTRING

AVP Flag M

CHAP-Ident

CHAP-Identifier

Vendor ID 10415

VSA Type 404

AVP Type OCTETSTRING

AVP Flag M

CHAP-Response

CHAP-Response

Vendor ID 10415

VSA Type 405

AVP Type OCTETSTRING

AVP Flag M

CIPA

CIPA

Vendor ID 7898

VSA Type 2005

AVP Type OCTETSTRING

AVP Flag N/A

CLR-Flags

CLR-Flags

Vendor ID 10415

VSA Type 1638

AVP Type UINT32

AVP Flag N/A

CMR-Flags

CMR-Flags

Vendor ID 10415

VSA Type 4317

AVP Type UINT32

AVP Flag M

CN-IP-Multicast-Distribution

CN-IP-Multicast-Distribution

Vendor ID 10415

VSA Type 921

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

CSG-Access-Mode

This AVP contains the mode in which the CSG cell user is accessing to, operates.

Vendor ID 10415

VSA Type 2317

AVP Type ENUM

Supported enumerated value(s):

0 CLOSED_MODE

1 HYBRID_MODE

AVP Flag M

CSG-Id

This AVP contains Closed Subscriber Group Identity used to identify Closed Subscriber Group within a PLMN.

Vendor ID 10415

VSA Type 1437

AVP Type UINT32

AVP Flag M

CSG-Membership-Indication

This AVP indicates the UE is a member of the accessing CSG cell, if the access mode is Hybrid, as described in TS 29.060, and in TS 29.274. If this indication is not present, this means the UE is a not member of the CSG cell for hybrid access mode.

Vendor ID 10415

VSA Type 2318

AVP Type ENUM

Supported enumerated value(s):

0 NOT_CSG_MEMBER

1 CSG_MEMBER

AVP Flag M

CSG-Subscription-Data

This AVP contains the CSG-Id and optionally an associated expiration date.

Vendor ID 10415

VSA Type 1436

AVP Type GROUPED

Supported group value(s):

[CSG_ID]

[EXPIRATION_DATE]

AVP Flag M

Call-Barring-Info-List

This AVP contains the service codes for the short message related call barring services for a subscriber.

Vendor ID 10415

VSA Type 1488

AVP Type GROUPED

Supported group value(s):

[SS_CODE]

AVP Flag M

Call-ID-SIP-Header

This AVP contains the information in the Call-ID header.

Vendor ID 10415

VSA Type 643

AVP Type OCTETSTRING

AVP Flag N/A

Callback-Id

This AVP contains the name of a place to be called, to be interpreted by the NAS.

Vendor ID 0

VSA Type 20

AVP Type UTF8STRING

AVP Flag M

Callback-Number

This AVP contains a dialing string to be used for callback.

Vendor ID 0

VSA Type 19

AVP Type UTF8STRING

AVP Flag M

Called-Asserted-Identity

This AVP contains the address (Public User ID: SIP URI, E.164, etc.) of the finally asserted called party.

Vendor ID 10415

VSA Type 1250

AVP Type UTF8STRING

AVP Flag M

Called-Party-Address

This AVP contains the address of the party to whom a session is established.

Vendor ID 10415

VSA Type 832

AVP Type UTF8STRING

AVP Flag M

Called-Station-Id

This AVP contains the Layer 2 addresses the user contacted in the request.

Vendor ID 0

VSA Type 30

AVP Type OCTETSTRING

AVP Flag M

Calling-Party-Address

This AVP contains the address of the party initiating a session.

Vendor ID 10415

VSA Type 831

AVP Type UTF8STRING

AVP Flag M

Calling-Station-Id

This AVP enables the NAS to send the ASCII string describing the Layer 2 address from which the user connected in the request.

Vendor ID 0

VSA Type 31

AVP Type UTF8STRING

AVP Flag M

Cancellation-Type

This AVP indicates the type of cancellation.

Vendor ID 10415

VSA Type 1420

AVP Type ENUM

Supported enumerated value(s):

0 MME_UPDATE_PROCEDURE

1 SGSN_UPDATE_PROCEDURE

2 SUBSCRIPTION_WITHDRAWAL

3 UPDATE_PROCEDURE_IWF

AVP Flag M

Carrier-Select-Routing-Information

This AVP contains information on carrier selection performed by S-CSCF/AS.

Vendor ID 10415

VSA Type 2023

AVP Type UTF8STRING

AVP Flag M

Cause

Cause

Vendor ID 10415

VSA Type 860

AVP Type GROUPED

Supported group value(s):

[CAUSE_CODE]

[NODE_FUNCTIONALITY]

AVP Flag M

Cause-Code

This AVP contains the cause code value from IMS node. It is used in Accounting-Request[stop] and/or Accounting-Request[event] messages.

Vendor ID 0

VSA Type 861

AVP Type INT32

AVP Flag M

Cause-Type

Cause-Type

Vendor ID 10415

VSA Type 4301

AVP Type UINT32

AVP Flag M

Cell-Global-Identity

This AVP contains the Cell Global Identification of the user.

Vendor ID 10415

VSA Type 1604

AVP Type OCTETSTRING

AVP Flag M

Change-Condition

This AVP indicates the change in charging condition.

Vendor ID 10415

VSA Type 2037

AVP Type ENUM

Supported enumerated value(s):

0 NORMAL_RELEASE

1 ABNORMAL_RELEASE

2 QOS_CHANGE

3 VOLUME_LIMIT

4 TIME_LIMIT

5 SERVING_NODE_CHANGE

6 SERVING_NODE_PLMN_CHANGE

7 USER_LOCATION_CHANGE

8 RAT_CHANGE

9 UE_TIME_ZONE_CHANGE

10 TARIFF_TIME_CHANGE

11 SERVICE_IDLED_OUT

12 SERVICE_SPECIFIC_UNIT_LIMIT

13 MAX_NUMBER_OF_CHARGING_CONDITIONS

14 MANAGEMENT_INTERVENTION

AVP Flag M

Change-Time

This AVP contains the time in UTC format when the volume counts associated to the service data container is closed and reported due to Charging condition change.

Vendor ID 10415

VSA Type 2038

AVP Type TIME

AVP Flag M

Charged-Party

Charged-Party

Vendor ID 10415

VSA Type 857

AVP Type UTF8STRING

AVP Flag M

Charging-Action-Definition

Charging-Action-Definition

Vendor ID 9

VSA Type 132014

AVP Type GROUPED

Supported group value(s):

[CHARGING_ACTION_NAME]

[QOS_INFORMATION]

[FLOW_STATUS]

[REDIRECT_SERVER]

AVP Flag N/A

Charging-Action-Install

Charging-Action-Install

Vendor ID 9

VSA Type 132012

AVP Type GROUPED

Supported group value(s):

[CHARGING_ACTION_DEFINITION]

AVP Flag N/A

Charging-Action-Name

Charging-Action-Name

Vendor ID 9

VSA Type 132015

AVP Type OCTETSTRING

AVP Flag N/A

Charging-Action-Remove

Charging-Action-Remove

Vendor ID 9

VSA Type 132013

AVP Type GROUPED

Supported group value(s):

[CHARGING_ACTION_NAME]

AVP Flag N/A

Charging-Characteristics

This AVP contains the charging mode to be applied.

Vendor ID 10415

VSA Type 11006

AVP Type UINT32

AVP Flag M

Charging-Characteristics-Selection-Mode

Charging-Characteristics-Selection-Mode

Vendor ID 10415

VSA Type 2066

AVP Type ENUM

Supported enumerated value(s):

0 SERVING-NODE-SUPPLIED

1 SUBSCRIPTION-SPECIFIC

2 APN-SPECIFIC

3 HOME-DEFAULT

4 ROAMING-DEFAULT

5 VISITING-DEFAULT

AVP Flag M

Charging-Correlation-Indicator

Charging-Correlation-Indicator

Vendor ID 10415

VSA Type 1073

AVP Type ENUM

Supported enumerated value(s):

0 CHARGING_IDENTIFIER_REQUIRED

AVP Flag M

Charging-Data

This AVP contains addresses of the charging functions.

Vendor ID 10415

VSA Type 11005

AVP Type GROUPED

Supported group value(s):

[CHARGING_CHARACTERISTICS]

AVP Flag M

Charging-Information

This AVP contains the addresses of the charging functions in the grouped AVPs.

Vendor ID 10415

VSA Type 618

AVP Type GROUPED

Supported group value(s):

[PRIMARY_EVENT_CHARGING_FUNCTION_NAME]

[SECONDARY_EVENT_CHARGING_FUNCTION_NAME]

[PRIMARY_CHARGING_COLLECTION_FUNCTION_NAME]

[SECONDARY_CHARGING_COLLECTION_FUNCTION_NAME]

AVP Flag M

Charging-Rule-Base-Name

This AVP indicates the name of a pre-defined group of charging rules residing at the TPF.

Vendor ID 10415

VSA Type 1004

AVP Type UTF8STRING

AVP Flag M

Charging-Rule-Definition

This AVP contains the charging rule for a service flow sent by the CRF to the TPF.

Vendor ID 10415

VSA Type 1003

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[SERVICE_IDENTIFIER]

[RATING_GROUP]

[FLOW_DESCRIPTION]

[REPORTING_LEVEL]

[ONLINE]

[OFFLINE]

[FLOW_STATUS]

[QOS_INFORMATION]

[METERING_METHOD]

[PRECEDENCE]

[AF_CHARGING_IDENTIFIER]

[MUTE_NOTIFICATION]

[TDF_APPLICATION_IDENTIFIER]

[REDIRECT_INFORMATION]

[FLOWS]

AVP Flag M

Charging-Rule-Event

Charging-Rule-Event

Vendor ID 9

VSA Type 131124

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[CHARGING_RULE_TRIGGER_TYPE]

[CISCO_VOLUME_USAGE]

[CISCO_TIME_USAGE]

[CISCO_REPORT_USAGE]

AVP Flag M

Charging-Rule-Event-Trigger

Charging-Rule-Event-Trigger

Vendor ID 9

VSA Type 131139

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_TRIGGER_TYPE]

[VOLUME_THRESHOLD]

[TIME_THRESHOLD]

[CISCO_REPORT_USAGE]

[VOLUME_THRESHOLD_64]

AVP Flag M

Charging-Rule-Install

Used to activate, install, or modify Charging/Firewall rules from the Policy server. Charging/Firewall ruledefs for a subscriber can be dynamically activated from gx server. If the incoming rule fails to match in the charging ruledefs of a rulebase, then there will be a lookup with the Firewall ruledefs of the rulebase.

Vendor ID 10415

VSA Type 1001

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_DEFINITION]

[CHARGING_RULE_NAME]

[CHARGING_RULE_BASE_NAME]

[BEARER_IDENTIFIER]

[RULE_ACTIVATION_TIME]

[RULE_DEACTIVATION_TIME]

[RESOURCE_ALLOCATION_NOTIFICATION]

AVP Flag M

Charging-Rule-Name

This AVP contains the charging rule name provided by the CRF. It uniquely identifies a charging rule for a bearer.

Vendor ID 10415

VSA Type 1005

AVP Type OCTETSTRING

AVP Flag M

Charging-Rule-Name-LI

Charging rule name for LI-Indicator-Gx.

Vendor ID 10415

VSA Type 1005

AVP Type OCTETSTRING

AVP Flag M

Charging-Rule-Remove

This AVP contains the deactivated or removed Charging/Firewall rules from the Policy server. Charging/Firewall ruledefs for a subscriber can be dynamically deactivated from gx server. If the incoming rule fails to match in the charging ruledefs of a rulebase, then there will be a lookup with the Firewall ruledefs of the rulebase.

Vendor ID 10415

VSA Type 1002

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[CHARGING_RULE_BASE_NAME]

[REQUIRED_ACCESS_INFO]

AVP Flag M

Charging-Rule-Report

This AVP is used to report the status of a Policy and Charging Control (PCC) rule for installation successful/removal. It is a reference for a specific PCC rule at the AGW that has been successfully installed, modified or removed because of trigger from the MS. The PCC-Rule-Status AVP indicates the action being performed on the PCC rule. Multiple instances of Charging-Rule-Report AVPs shall be used in the case it is required to report different PCCRule-Status values for different groups of rules within the same Diameter command.

Vendor ID 10415

VSA Type 1018

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[CHARGING_RULE_BASE_NAME]

[PCC_RULE_STATUS]

[RULE_FAILURE_CODE]

[FINAL_UNIT_INDICATION]

[RAN_NAS_RELEASE_CAUSE]

AVP Flag M

Charging-Rule-Trigger-Type

Charging-Rule-Trigger-Type

Vendor ID 9

VSA Type 131123

AVP Type ENUM

Supported enumerated value(s):

0 NO_TRIGGERS

1 VOL_THRESHOLD

2 TIME_THRESHOLD

3 SVC_FLOW_DETECT

4 CHRG_RULE_REMOVE

AVP Flag M

Check-Balance-Result

This AVP contains the result of the balance check. Applicable only when requested-Action AVP indicates CHECK_BALANCE.

Vendor ID 0

VSA Type 422

AVP Type ENUM

Supported enumerated value(s):

0 ENOUGH_CREDIT

1 NO_CREDIT

AVP Flag M

Cisco-Answer-Charging-Rule-Usage

Cisco-Answer-Charging-Rule-Usage

Vendor ID 9

VSA Type 131254

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[CISCO_REQUEST_USAGE_TYPE]

[CISCO_VOLUME_USAGE]

[CISCO_TIME_USAGE]

AVP Flag M

Cisco-Answer-Service-Group-Usage

Cisco-Answer-Service-Group-Usage

Vendor ID 9

VSA Type 131255

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_NAME]

[CISCO_REQUEST_USAGE_TYPE]

[CISCO_VOLUME_USAGE]

[CISCO_TIME_USAGE]

AVP Flag M

Cisco-Answer-User-Usage

Cisco-Answer-User-Usage

Vendor ID 9

VSA Type 131250

AVP Type GROUPED

Supported group value(s):

[CISCO_REQUEST_USAGE_TYPE]

[CISCO_VOLUME_USAGE]

[CISCO_TIME_USAGE]

AVP Flag M

Cisco-CC-Failure-Type

This attribute indicates the OCS failure reasons to the PCRF.

Vendor ID 9

VSA Type 132077

AVP Type UINT32

AVP Flag M

Cisco-Charging-Rule-Definition

Cisco-Charging-Rule-Definition

Vendor ID 9

VSA Type 131072

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[SERVICE_NAME]

[RATING_GROUP]

[CISCO_FLOW_DESCRIPTION]

[CISCO_FLOW_STATUS]

[QOS_INFORMATION]

[ONLINE]

[OFFLINE]

[PRECEDENCE]

[AF_CHARGING_IDENTIFIER]

[CHARGING_RULE_EVENT_TRIGGER]

[REDIRECT_SERVER]

[MONITORING_KEY]

AVP Flag M

Cisco-Event

Cisco-Event

Vendor ID 9

VSA Type 131195

AVP Type GROUPED

Supported group value(s):

[CISCO_EVENT_TRIGGER_TYPE]

[TCP_SYN]

[CISCO_VOLUME_USAGE]

[CISCO_TIME_USAGE]

[CISCO_REPORT_USAGE]

[CISCO_USER_AGENT]

[CISCO_CC_FAILURE_TYPE]

AVP Flag M

Cisco-Event-Trigger

Cisco-Event-Trigger

Vendor ID 9

VSA Type 131193

AVP Type GROUPED

Supported group value(s):

[CISCO_EVENT_TRIGGER_TYPE]

[VOLUME_THRESHOLD]

[TIME_THRESHOLD]

[CISCO_REPORT_USAGE]

[VOLUME_THRESHOLD_64]

AVP Flag M

Cisco-Event-Trigger-Type

Cisco-Event-Trigger-Type

Vendor ID 9

VSA Type 131192

AVP Type ENUM

Supported enumerated value(s):

0 NO_CISCO_EVENT_TRIGGERS

1 TCP_SYN_DETECTION

2 VOL_THRESHOLD

3 TIME_THRESHOLD

4 USER_AGENT_DETECTION

5 CREDIT_CONTROL_FAILURE

AVP Flag M

Cisco-Flow-Description

Cisco-Flow-Description

Vendor ID 9

VSA Type 131160

AVP Type GROUPED

Supported group value(s):

[CONTENT_NAME]

[PRECEDENCE]

[FLOW_DESCRIPTION]

[FLOW_INFORMATION]

AVP Flag M

Cisco-Flow-Status

Cisco-Flow-Status

Vendor ID 9

VSA Type 131169

AVP Type ENUM

Supported enumerated value(s):

0 FORWARD

1 BLOCK

2 REDIRECT

AVP Flag M

Cisco-QoS

Cisco-QoS

Vendor ID 9

VSA Type 131170

AVP Type GROUPED

Supported group value(s):

[QOS_RATE_LIMIT_UL]

[QOS_RATE_LIMIT_DL]

AVP Flag M

Cisco-QoS-Profile

Cisco-QoS-Profile

Vendor ID 9

VSA Type 131237

AVP Type GROUPED

Supported group value(s):

[CISCO_QOS_PROFILE_NAME]

[QOS_RATE_LIMIT]

AVP Flag M

Cisco-QoS-Profile-Downlink

Cisco-QoS-Profile-Downlink

Vendor ID 9

VSA Type 131241

AVP Type GROUPED

Supported group value(s):

[CISCO_QOS_PROFILE_NAME]

AVP Flag M

Cisco-QoS-Profile-Install

Cisco-QoS-Profile-Install

Vendor ID 9

VSA Type 131238

AVP Type GROUPED

Supported group value(s):

[CISCO_QOS_PROFILE]

AVP Flag M

Cisco-QoS-Profile-Name

Cisco-QoS-Profile-Name

Vendor ID 9

VSA Type 131229

AVP Type UTF8STRING

AVP Flag M

Cisco-QoS-Profile-Remove

Cisco-QoS-Profile-Remove

Vendor ID 9

VSA Type 131239

AVP Type GROUPED

Supported group value(s):

[CISCO_QOS_PROFILE_NAME]

AVP Flag M

Cisco-QoS-Profile-Uplink

Cisco-QoS-Profile-Uplink

Vendor ID 9

VSA Type 131240

AVP Type GROUPED

Supported group value(s):

[CISCO_QOS_PROFILE_NAME]

AVP Flag M

Cisco-Quota-Consumption-Time

Cisco-Quota-Consumption-Time

Vendor ID 9

VSA Type 131213

AVP Type UINT32

AVP Flag N/A

Cisco-Report-Usage

Cisco-Report-Usage

Vendor ID 9

VSA Type 131248

AVP Type ENUM

Supported group value(s):

[EVENT_TRIGGER]

AVP Flag M

Cisco-Request-Charging-Rule-Usage

Cisco-Request-Charging-Rule-Usage

Vendor ID 9

VSA Type 131252

AVP Type GROUPED

Supported group value(s):

[CHARGING_RULE_NAME]

[CISCO_REQUEST_USAGE_TYPE]

AVP Flag M

Cisco-Request-Service-Group-Usage

Cisco-Request-Service-Group-Usage

Vendor ID 9

VSA Type 131253

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_NAME]

[CISCO_REQUEST_USAGE_TYPE]

AVP Flag M

Cisco-Request-Usage-Type

Cisco-Request-Usage-Type

Vendor ID 9

VSA Type 131251

AVP Type ENUM

Supported enumerated value(s):

0 VOL_USAGE

1 TIME_USAGE

AVP Flag M

Cisco-Time-Usage

Cisco-Time-Usage

Vendor ID 9

VSA Type 131156

AVP Type GROUPED

Supported group value(s):

[DURATION]

[FIRST_PACKET_TIMESTAMP]

[LAST_PACKET_TIMESTAMP]

AVP Flag M

Cisco-User-Agent

Cisco-User-Agent

Vendor ID 9

VSA Type 131256

AVP Type UTF8STRING

AVP Flag M

Cisco-User-Location

Cisco-User-Location

Vendor ID 9

VSA Type 132000

AVP Type GROUPED

Supported group value(s):

[AN_GW_ADDRESS]

[3GPP_SGSN_MCC_MNC]

[3GPP_SGSN_ADDRESS]

[3GPP_SGSN_IPV6_ADDRESS]

[RAI]

[3GPP_USER_LOCATION_INFO]

AVP Flag N/A

Cisco-Volume-Usage

Cisco-Volume-Usage

Vendor ID 9

VSA Type 131155

AVP Type UINT64

AVP Flag N/A

Civic-Addr

Civic-Addr

Vendor ID 9

VSA Type 132068

AVP Type UTF8STRING

AVP Flag N/A

Civic-Location

This AVP contains location information.

Vendor ID 13019

VSA Type 355

AVP Type OCTETSTRING

AVP Flag M

Class

This AVP is used by Diameter servers to return state information to the access device.

Vendor ID 0

VSA Type 25

AVP Type OCTETSTRING

AVP Flag M

Class-Map-Name

Class-Map-Name

Vendor ID 9

VSA Type 131214

AVP Type UTF8STRING

AVP Flag M

Client-Group-Id

Client-Group-Id

Vendor ID 9

VSA Type 131143

AVP Type GROUPED

Supported group value(s):

[ACL_NUMBER]

[ACL_NAME]

AVP Flag M

Client-Identity

This AVP contains the ISDN number of the external client.

Vendor ID 10415

VSA Type 1480

AVP Type OCTETSTRING

AVP Flag M

CoA-IP-Address

This AVP contains care-of-address for DSMIP6 access.

Vendor ID 10415

VSA Type 1035

AVP Type ADDRESS

AVP Flag M

CoA-Information

This AVP contains care-of-address and the tunnel information related to the care of address.

Vendor ID 10415

VSA Type 1039

AVP Type GROUPED

Supported group value(s):

[TUNNEL_INFORMATION]

[COA_IP_ADDRESS]

AVP Flag M

Codec-Data

This AVP contains CODEC-related information known at the AF.

Vendor ID 10415

VSA Type 524

AVP Type OCTETSTRING

AVP Flag M

Communication-Failure-Information

Communication-Failure-Information

Vendor ID 10415

VSA Type 4300

AVP Type GROUPED

Supported group value(s):

[CAUSE_TYPE]

[S1AP_CAUSE]

[RANAP_CAUSE]

[BSSGP_CAUSE]

[GMM_CAUSE]

[SM_CAUSE]

AVP Flag M

Complete-Data-List-Included-Indicator

This AVP indicates addition/modification/deletion of PDP-Contexts at MME/SGSN.

Vendor ID 10415

VSA Type 1468

AVP Type ENUM

Supported enumerated value(s):

0 ALL_PDP_CONTEXTS_INCLUDED

1 MODIFIED_ADDED_PDP_CONTEXTS_INCLUDED

AVP Flag M

Conditional-APN-Aggregate-Max-Bitrate

Conditional-APN-Aggregate-Max-Bitrate

Vendor ID 10415

VSA Type 2818

AVP Type GROUPED

Supported group value(s):

[APN_AGGREGATE_MAX_BITRATE_UL]

[APN_AGGREGATE_MAX_BITRATE_DL]

[EXTENDED-APN-AMBR-UL]

[EXTENDED-APN-AMBR-DL]

[IP_CAN_TYPE]

[RAT_TYPE]

AVP Flag N/A

Conditional-Policy-Information

Conditional-Policy-Information

Vendor ID 10415

VSA Type 2840

AVP Type GROUPED

Supported group value(s):

[EXECUTION_TIME]

[DEFAULT_EPS_BEARER_QOS]

[APN_AGGREGATE_MAX_BITRATE_UL]

[APN_AGGREGATE_MAX_BITRATE_DL]

[CONDITIONAL_APN_AGGREGATE_MAX_BITRATE]

AVP Flag N/A

Confidentiality-Key

This AVP contains the Confidentiality Key (CK).

Vendor ID 10415

VSA Type 625

AVP Type OCTETSTRING

AVP Flag M

Configuration-Token

This AVP is sent by a Diameter Server to a Diameter Proxy Agent or Translation Agent in an AA-Answer command to indicate a type of user profile to be used.

Vendor ID 0

VSA Type 78

AVP Type OCTETSTRING

AVP Flag N/A

Confirm-Token

Confirm-Token

Vendor ID 9

VSA Type 131099

AVP Type OCTETSTRING

AVP Flag M

Confirm-Token-V

Confirm-Token-V

Vendor ID 9

VSA Type 131117

AVP Type OCTETSTRING

AVP Flag M

Connect-Info

This AVP is sent in the AA-Request message or ACR STOP message.

Vendor ID 0

VSA Type 77

AVP Type UTF8STRING

AVP Flag M

Connection-Action

Connection-Action

Vendor ID 10415

VSA Type 4314

AVP Type UINT32

AVP Flag M

Contact

This AVP contains the contact addresses and parameters in the Contact header.

Vendor ID 10415

VSA Type 641

AVP Type OCTETSTRING

AVP Flag N/A

Content-Definition

Content-Definition

Vendor ID 9

VSA Type 131073

AVP Type GROUPED

Supported group value(s):

[CONTENT_NAME]

[CONTENT_FLOW_DESCRIPTION]

[CONTENT_SCOPE]

[CONTENT_IDLE_TIMER]

[NEXTHOP]

[L7_PARSE_PROTOCOL_TYPE]

[L7_PARSE_LENGTH]

[BILLING_POLICY_NAME]

[REPLICATE_SESSION]

[INTERMEDIATE_CDR_THRESHOLD]

[CDR_GENERATION_DELAY]

[CONTENT_PENDING_TIMER]

[OPERATION_STATUS]

[SUBSCRIBER_IP_SOURCE]

[FLOW_STATUS_POLICY_MISMATCH]

[RELATIVE_URL]

[CONTROL_URL]

[DOMAIN_GROUP_NAME]

[MINING]

[NEXTHOP_MEDIA]

[NEXTHOP_OVERRIDE]

AVP Flag M

Content-Disposition

This AVP indicates how the message body or a message body part is to be interpreted (for example, session, render).

Vendor ID 10415

VSA Type 828

AVP Type UTF8STRING

AVP Flag M

Content-Flow-Description

Content-Flow-Description

Vendor ID 9

VSA Type 131141

AVP Type GROUPED

Supported group value(s):

[CONTENT_FLOW_FILTER]

[VRF_NAME]

[VLAN_ID]

AVP Flag M

Content-Flow-Filter

Content-Flow-Filter

Vendor ID 9

VSA Type 131142

AVP Type GROUPED

Supported group value(s):

[CLIENT_GROUP_ID]

[DESTINATION_IP_ADDRESS]

[DESTINATION_MASK]

[PROTOCOL_ID]

[START_OF_PORT_RANGE]

[END_OF_PORT_RANGE]

AVP Flag M

Content-Idle-Timer

Content-Idle-Timer

Vendor ID 9

VSA Type 131082

AVP Type UINT32

AVP Flag N/A

Content-Install

Content-Install

Vendor ID 9

VSA Type 131183

AVP Type GROUPED

Supported group value(s):

[CONTENT_DEFINITION]

AVP Flag M

Content-Length

This AVP contains the size of the message body.

Vendor ID 10415

VSA Type 827

AVP Type UINT32

AVP Flag M

Content-Name

Content-Name

Vendor ID 9

VSA Type 131151

AVP Type OCTETSTRING

AVP Flag M

Content-Pending-Timer

Content-Pending-Timer

Vendor ID 9

VSA Type 131134

AVP Type UINT32

AVP Flag N/A

Content-Policy-Map

Content-Policy-Map

Vendor ID 9

VSA Type 131077

AVP Type GROUPED

Supported group value(s):

[CONTENT_NAME]

[BILLING_POLICY_NAME]

[WEIGHT]

AVP Flag M

Content-Remove

Content-Remove

Vendor ID 9

VSA Type 131184

AVP Type GROUPED

Supported group value(s):

[CONTENT_NAME]

AVP Flag M

Content-Scope

Content-Scope

Vendor ID 9

VSA Type 131163

AVP Type ENUM

Supported enumerated value(s):

0 GLOBAL

1 USER

AVP Flag M

Content-Type

This AVP contains the media type (for example, application/sdp, text/html) of the message-body.

Vendor ID 10415

VSA Type 826

AVP Type UTF8STRING

AVP Flag M

Context-Identifier

Context-Identifier

Vendor ID 10415

VSA Type 1423

AVP Type UINT32

AVP Flag M

Control-URL

Control-URL

Vendor ID 9

VSA Type 131197

AVP Type GROUPED

Supported group value(s):

[INTERLEAVED]

AVP Flag M

Correlate-Reason

This AVP contains the reason the Correlate message was sent.

Vendor ID 4491

VSA Type 202

AVP Type ENUM

Supported enumerated value(s):

0 UNKNOWN

1 B2BUA

2 INITIAL_SIP_MESSAGE

3 ADDITIONAL_TARGET_ENCOUNTERED

4 HAND_OFF_OCCURED

5 ORIGINATION_FROM_APP_SERVER

6 BCID

AVP Flag M

Cost-Information

This AVP contains cost information of service transferred by the credit-control client to the end user.

Vendor ID 0

VSA Type 423

AVP Type GROUPED

Supported group value(s):

[UNIT_VALUE]

[CURRENCY_CODE]

[COST_UNIT]

AVP Flag M

Cost-Unit

This AVP contains the applicable unit to the Cost-Information when the service cost is a cost per unit, can be minutes, hours, days and kilobytes.

Vendor ID 0

VSA Type 424

AVP Type UTF8STRING

AVP Flag M

Credit-Control

This AVP is included in AA requests when the service element has credit-control application.

Vendor ID 0

VSA Type 426

AVP Type ENUM

Supported enumerated value(s):

0 CREDIT_AUTHORIZATION

1 RE_AUTHORIZATION

AVP Flag M

Credit-Control-Failure-Handling

The credit-control client uses this information to handle the credit control server failure.

Vendor ID 0

VSA Type 427

AVP Type ENUM

Supported enumerated value(s):

0 TERMINATE

1 CONTINUE

2 RETRY_AND_TERMINATE

AVP Flag M

Cumulative-Acct-Input-Octets

This AVP represents the cumulative number of input octets. This attribute is included in the Service-Data-Container AVP and sent only in ACR-Interim and ACR-Stop messages to track the cumulative data usage per Rating Group (RG).

Vendor ID 9

VSA Type 132044

AVP Type UINT64

AVP Flag N/A

Cumulative-Acct-Output-Octets

This AVP represents the cumulative number of output octets. This attribute is included in the Service-Data-Container AVP and sent only in ACR-Interim and ACR-Stop messages to track the cumulative data usage per Rating Group (RG).

Vendor ID 9

VSA Type 132045

AVP Type UINT64

AVP Flag N/A

Currency-Code

This AVP contains currency in which the values of AVPs containing monetary units were given.

Vendor ID 0

VSA Type 425

AVP Type UINT32

AVP Flag M

Current-Location

This AVP indicates whether an active location retrieval has to be initiated or not.

Vendor ID 0

VSA Type 707

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Current-Location-Retrieved

Current-Location-Retrieved

Vendor ID 10415

VSA Type 1610

AVP Type ENUM

Supported enumerated value(s):

0 ACTIVE-LOCATION-RETRIEVAL

AVP Flag M

Custom-Mute-Notification

Custom-Mute-Notification

Vendor ID 9

VSA Type 132056

AVP Type ENUM

Supported enumerated value(s):

0 MUTE_APPLICATION_START

1 UNMUTE_APPLICATION_START

AVP Flag N/A

Customer-Id

This AVP contains customer identifier; used in header enrichment scenarios.

Vendor ID 8164

VSA Type 1146

AVP Type UTF8STRING

AVP Flag M

DEA-Flags

DEA-Flags

Vendor ID 10415

VSA Type 1521

AVP Type UINT32

AVP Flag M

DER-Flags

DER-Flags

Vendor ID 10415

VSA Type 1520

AVP Type UINT32

AVP Flag M

DIR

DIR

Vendor ID 0

VSA Type 11000

AVP Type OCTETSTRING

AVP Flag M

DL-Buffering-Suggested-Packet-Count

DL-Buffering-Suggested-Packet-Count

Vendor ID 10415

VSA Type 1674

AVP Type INT32

AVP Flag N/A

DRMP

DRMP

Vendor ID 0

VSA Type 301

AVP Type ENUM

Supported enumerated value(s):

0 PRIORITY_0

1 PRIORITY_1

2 PRIORITY_2

3 PRIORITY_3

4 PRIORITY_4

5 PRIORITY_5

6 PRIORITY_6

7 PRIORITY_7

8 PRIORITY_8

9 PRIORITY_9

10 PRIORITY_10

11 PRIORITY_11

12 PRIORITY_12

13 PRIORITY_13

14 PRIORITY_14

15 PRIORITY_15

AVP Flag N/A

DSA-Flags

This AVP contains a bit mask.

Vendor ID 10415

VSA Type 1422

AVP Type UINT32

AVP Flag M

DSCP

DSCP

Vendor ID 9

VSA Type 131178

AVP Type UINT32

AVP Flag N/A

DSR-Application-Invoked

DSR-Application-Invoked

Vendor ID 323

VSA Type 2468

AVP Type ENUM

Supported enumerated value(s):

3 RBAR

4 FABR

5 CPA

6 P-DRA

AVP Flag M

DSR-Flags

This AVP contains a bit mask.

Vendor ID 10415

VSA Type 1421

AVP Type UINT32

AVP Flag M

Data-Reference

This AVP contains the type of the requested used data in the operation UDR and SNR.

Vendor ID 0

VSA Type 703

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Default-EPS-Bearer-QoS

This AVP contains the QoS information for the EPS default bearer.

Vendor ID 10415

VSA Type 1049

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS_IDENTIFIER]

[ALLOCATION_RETENTION_PRIORITY]

AVP Flag M

Delegated-IP-Install

Delegated-IP-Install

Vendor ID 9

VSA Type 131259

AVP Type GROUPED

Supported group value(s):

[DELEGATED_IPV4_DEFINITION]

[DELEGATED_IPV6_DEFINITION]

AVP Flag M

Delegated-IPv4-Definition

Delegated-IPv4-Definition

Vendor ID 9

VSA Type 131260

AVP Type GROUPED

Supported group value(s):

[FRAMED_IP_ADDRESS]

[FRAMED_IP_NETMASK]

[AGGR_PREFIX_LEN]

AVP Flag M

Delegated-IPv6-Definition

Delegated-IPv6-Definition

Vendor ID 9

VSA Type 131261

AVP Type GROUPED

Supported group value(s):

[DELEGATED_IPV6_PREFIX]

[AGGR_PREFIX_LEN]

AVP Flag M

Delegated-IPv6-Prefix

Delegated-IPv6-Prefix

Vendor ID 0

VSA Type 123

AVP Type OCTETSTRING

AVP Flag M

Deregistration-Reason

This AVP contains the reason for a de-registration operation.

Vendor ID 10415

VSA Type 615

AVP Type GROUPED

Supported group value(s):

[REASON_CODE]

[REASON_INFO]

AVP Flag M

Destination-Host

This AVP contains the destination endpoint of the message. This AVP is present in all request messages.

Vendor ID 0

VSA Type 293

AVP Type DIAMIDENT

AVP Flag M

Destination-IP-Address

Destination-IP-Address

Vendor ID 9

VSA Type 131146

AVP Type ADDRESS

AVP Flag M

Destination-Mask

Destination-Mask

Vendor ID 9

VSA Type 131147

AVP Type ADDRESS

AVP Flag M

Destination-PGW

Destination-PGW

Vendor ID 9

VSA Type 2300

AVP Type UTF8STRING

AVP Flag N/A

Destination-Realm

This AVP contains the realm the message is to be routed to. It is present in all request messages sent from DCCA.

Vendor ID 0

VSA Type 283

AVP Type DIAMIDENT

AVP Flag M

Destination-SIP-URI

Destination-SIP-URI

Vendor ID 10415

VSA Type 3327

AVP Type UTF8STRING

AVP Flag N/A

Diagnostics

This AVP contains a more detailed cause value for sending Accounting-Request from PCN node.

Vendor ID 10415

VSA Type 2039

AVP Type ENUM

Supported enumerated value(s):

0 UNSPECIFIED

1 SESSION_TIMEOUT

2 RESOURCE_LIMITATION

3 ADMIN_DISCONNECT

4 IDLE_TIMEOUT

5 PCRF_UNREACHABLE

6 AAA_UNREACHABLE

7 AAA_INITIATED_SESSION_TERMINATION

8 REAUTHENTICATION_FAILED

9 PCRF_INITIATED_SESSION_TERMINATION

10 PCRF_INITIATED_FLOW_TERMINATION

11 PCRF_ACCOUNTING_PARAMETERS_CHANGED

12 PMIP_INITIATED_SESSION_TERMINATION

13 PPP_INITIATED_SESSION_TERMINATION

14 GTP_INITIATED_SESSION_TERMINATION

15 PMIP_REVOCATION

16 HANDOVER_ERROR

17 PMIP_LIFETIME_EXPIRED

AVP Flag M

Dialog-Id

This AVP contains the SIP dialog identifier in the form: Call-ID=x;FTag=y;TTag=z, where x is the value of the SIP Call-ID header, y is the contents of the From header tag, and z is the contents of the To header tag. If the To header tag value is not present in the SIP message then TTag field MUST not be present in the AVP.

Vendor ID 4491

VSA Type 203

AVP Type UTF8STRING

AVP Flag M

Digest-Algorithm

This AVP contains the algorithm parameter that influences the HTTP Digest calculation.

Vendor ID 0

VSA Type 111

AVP Type OCTETSTRING

AVP Flag M

Digest-Auth-Param

This AVP is a placeholder for future extensions and corresponds to the "auth-param" parameter defined in section 3.2.1 of [RFC2617].

Vendor ID 0

VSA Type 117

AVP Type OCTETSTRING

AVP Flag M

Digest-Domain

This AVP contains a single URI that defines a protection space component.

Vendor ID 0

VSA Type 119

AVP Type OCTETSTRING

AVP Flag M

Digest-HA1

This AVP contains the hexadecimal representation of H(A1) as described in RFC2617.

Vendor ID 0

VSA Type 121

AVP Type OCTETSTRING

AVP Flag M

Digest-QoP

This AVP contains the Quality of Protection (QoP) parameter that influences the HTTP Digest calculation.

Vendor ID 0

VSA Type 110

AVP Type OCTETSTRING

AVP Flag M

Digest-Realm

This AVP describes a protection space component of the RADIUS server.

Vendor ID 0

VSA Type 104

AVP Type OCTETSTRING

AVP Flag M

Direct-Debiting-Failure-Handling

This AVP contains the action to handle the failure of request message to the credit control server with DIRECT_DEBITING attribute.

Vendor ID 0

VSA Type 428

AVP Type ENUM

Supported enumerated value(s):

0 TERMINATE_OR_BUFFER

1 CONTINUE

AVP Flag M

Direct-Message

This AVP indicates if the reported message is exchanged directly between the IAP and the intercept target.

Vendor ID 4491

VSA Type 211

AVP Type ENUM

Supported enumerated value(s):

0 FALSE

1 TRUE

AVP Flag M

Direction

This AVP indicates whether the reported message was sent "to" or "from" the intercept target.

Vendor ID 4491

VSA Type 210

AVP Type ENUM

Supported enumerated value(s):

0 UNDEFINED

1 TO_TARGET

2 FROM_TARGET

AVP Flag M

Disable-Override-Control

This AVP is used to disable Override Control (OC) completely or per parameter basis.

Vendor ID 9

VSA Type 132053

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_CONTROL_NAME]

[DISABLE_OVERRIDE_CONTROL_PARAMETER]

AVP Flag N/A

Disable-Override-Control-Parameter

This AVP specifies the Override Control parameter to be disabled. This AVP may be included more than once if multiple parameters need to be disabled.

Vendor ID 9

VSA Type 132057

AVP Type ENUM

Supported enumerated value(s):

0 OVERRIDE_SERVICE_IDENTIFIER

1 OVERRIDE_RATING_GROUP

2 OVERRIDE_ONLINE

3 OVERRIDE_OFFLINE

4 OVERRIDE_MAX_REQUESTED_BANDWIDTH_UL

5 OVERRIDE_MAX_REQUESTED_BANDWIDTH_DL

6 OVERRIDE_GUARANTEED_BITRATE_UL

7 OVERRIDE_GUARANTEED_BITRATE_DL

8 OVERRIDE_PRIORITY_LEVEL

9 OVERRIDE_PRE_EMPTION_CAPABILITY

10 OVERRIDE_PRE_EMPTION_VULNERABILITY

11 OVERRIDE_QOS_CLASS_IDENTIFIER

12 OVERRIDE_NEXTHOP_ADDRESS

13 OVERRIDE_VLAN_ID

14 OVERRIDE_TOS_VALUE_STANDARD_UL

15 OVERRIDE_TOS_VALUE_STANDARD_DL

16 OVERRIDE_TOS_VALUE_CUSTOM_UL

17 OVERRIDE_TOS_VALUE_CUSTOM_DL

AVP Flag N/A

Disconnect-Cause

This AVP contains the cause of disconnection with peer.

Vendor ID 0

VSA Type 273

AVP Type ENUM

Supported enumerated value(s):

0 REBOOTING

1 BUSY

2 DO_NOT_WANT_TO_TALK_TO_YOU

AVP Flag M

Domain-Group-Activation

Domain-Group-Activation

Vendor ID 9

VSA Type 131206

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Domain-Group-Clear

Domain-Group-Clear

Vendor ID 9

VSA Type 131235

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Domain-Group-Definition

Domain-Group-Definition

Vendor ID 9

VSA Type 131203

AVP Type GROUPED

Supported group value(s):

[DOMAIN_GROUP_NAME]

[PRIORITY]

[MATCH_STRING]

AVP Flag M

Domain-Group-Install

Domain-Group-Install

Vendor ID 9

VSA Type 131204

AVP Type GROUPED

Supported group value(s):

[DOMAIN_GROUP_DEFINITION]

AVP Flag M

Domain-Group-Name

Domain-Group-Name

Vendor ID 9

VSA Type 131202

AVP Type OCTETSTRING

AVP Flag M

Domain-Group-Remove

Domain-Group-Remove

Vendor ID 9

VSA Type 131205

AVP Type GROUPED

Supported group value(s):

[DOMAIN_GROUP_NAME]

AVP Flag M

Downlink-Rate-Limit

Downlink-Rate-Limit

Vendor ID 10415

VSA Type 4312

AVP Type UINT32

AVP Flag M

Dual-Billing-Basis

Dual-Billing-Basis

Vendor ID 9

VSA Type 131207

AVP Type ENUM

Supported enumerated value(s):

0 INVALID

1 EVENT

2 IP_BYTE

3 TCP_BYTE

4 DURATION

5 DURATION_CONNECT

6 DURATION_TRANSACTION

AVP Flag M

Dual-Passthrough-Quota

Dual-Passthrough-Quota

Vendor ID 9

VSA Type 131208

AVP Type UINT32

AVP Flag N/A

Dual-Reauthorization-Threshold

Dual-Reauthorization-Threshold

Vendor ID 9

VSA Type 131209

AVP Type UINT32

AVP Flag N/A

Duration

Duration

Vendor ID 9

VSA Type 131157

AVP Type UINT32

AVP Flag N/A

Dynamic-Address-Flag

This AVP indicates whether the PDP context/PDN address is statically or dynamically allocated. If not present, then it is statically allocated.

Vendor ID 10415

VSA Type 2051

AVP Type ENUM

Supported enumerated value(s):

0 STATIC

1 DYNAMIC

AVP Flag M

EAP-Key-Name

This AVP contains an opaque key identifier (name) generated by the EAP method.

Vendor ID 0

VSA Type 102

AVP Type OCTETSTRING

AVP Flag M

EAP-Master-Session-Key

This AVP contains keying material for protecting the communications between the user and the NAS.

Vendor ID 0

VSA Type 464

AVP Type OCTETSTRING

AVP Flag N/A

EAP-Payload

This AVP is used to encapsulate the actual EAP packet that is being exchanged between the EAP client and the home Diameter server.

Vendor ID 0

VSA Type 462

AVP Type OCTETSTRING

AVP Flag M

EAP-Reissued-Payload

Sent in DEA for a non-fatal error, and encapsulates the previous EAP Request sent by the server.

Vendor ID 0

VSA Type 463

AVP Type OCTETSTRING

AVP Flag M

ECGI

This attribute indicates the E-UTRAN Cell Global Identifier. It is coded according to 3GPP TS 29.274, clause 8.21.5.

Vendor ID 10415

VSA Type 2517

AVP Type OCTETSTRING

AVP Flag M

EPS-Location-Information

EPS-Location-Information

Vendor ID 10415

VSA Type 1496

AVP Type GROUPED

Supported group value(s):

[MME_LOCATION_INFORMATION]

[SGSN_LOCATION_INFORMATION]

AVP Flag M

EPS-Subscribed-QoS-Profile

This AVP contains the bearer-level QoS parameters associated to the default bearer for an APN.

Vendor ID 10415

VSA Type 1431

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS_IDENTIFIER]

[ALLOCATION_RETENTION_PRIORITY]

AVP Flag M

EPS-User-State

EPS-User-State

Vendor ID 10415

VSA Type 1495

AVP Type GROUPED

Supported group value(s):

[MME_USER_STATE]

[SGSN_USER_STATE]

AVP Flag M

EPS-Vector

This AVP contains Authentication Information for EPS.

Vendor ID 10415

VSA Type 6017

AVP Type GROUPED

Supported group value(s):

[ITEM_NUMBER]

[RAND]

[XRES]

[AUTN]

[KASME]

AVP Flag M

ESN

ESN

Vendor ID 10415

VSA Type 6109

AVP Type OCTETSTRING

AVP Flag M

EUTRAN-Cell-Global-Identity

This AVP contains E-UTRAN cell global identity of the user.

Vendor ID 10415

VSA Type 1602

AVP Type OCTETSTRING

AVP Flag M

EUTRAN-Positioning-Data

This attribute contains the encoded content of the "Positioning-Data" Information Element as defined in 3GPP TS 29.171.

Vendor ID 10415

VSA Type 2516

AVP Type OCTETSTRING

AVP Flag M

EUTRAN-Vector

EUTRAN-Vector

Vendor ID 10415

VSA Type 1414

AVP Type GROUPED

Supported group value(s):

[ITEM_NUMBER]

[RAND]

[XRES]

[AUTN]

[KASME]

AVP Flag M

Early-Media-Description

This AVP contains the SDP session, media parameters, and timestamps related to media components set to active according to SDP signalling exchanged during a SIP session establishment before the final successful or unsuccessful SIP answer to the initial SIP INVITE message is received.

Vendor ID 10415

VSA Type 1272

AVP Type GROUPED

Supported group value(s):

[SDP_TIMESTAMPS]

[SDP_MEDIA_COMPONENT]

[SDP_SESSION_DESCRIPTION]

AVP Flag M

Element-ID

This AVP contains the PacketCable IAP sending an intercept message to the DF.

Vendor ID 4491

VSA Type 212

AVP Type UTF8STRING

AVP Flag M

Element-Type

This AVP contains the type of node where the intercept message was generated.

Vendor ID 4491

VSA Type 213

AVP Type ENUM

Supported enumerated value(s):

0 S_CSCF

1 P_CSCF

2 I_CSCF

3 MRFC

4 MGCF

5 BGCF

6 AS

7 UE

AVP Flag M

Emergency-Indication

Emergency-Indication

Vendor ID 10415

VSA Type 1538

AVP Type UINT32

AVP Flag N/A

End-of-Port-range

End-of-Port-range

Vendor ID 9

VSA Type 131150

AVP Type UINT32

AVP Flag N/A

Equipment-Status

This AVP contains the status of the mobile equipment.

Vendor ID 10415

VSA Type 1445

AVP Type ENUM

Supported enumerated value(s):

0 WHITELISTED

1 BLACKLISTED

2 GREYLISTED

AVP Flag M

Error-Diagnostic

Error-Diagnostic

Vendor ID 10415

VSA Type 1614

AVP Type ENUM

Supported enumerated value(s):

0 GPRS_DATA_SUBSCRIBED

1 NO_GPRS_DATA_SUBSCRIBED

AVP Flag M

Error-Message

Human Readable Error Message.

Vendor ID 0

VSA Type 281

AVP Type UTF8STRING

AVP Flag N/A

Error-Reporting-Host

This AVP contains the identity of the Diameter host that sent the Result Code AVP to a value other than 2001.

Vendor ID 0

VSA Type 294

AVP Type DIAMIDENT

AVP Flag M

Event

This AVP contains the content of the "Event" header used in SUBSCRIBE and NOTIFY messages.

Vendor ID 10415

VSA Type 825

AVP Type UTF8STRING

AVP Flag M

Event-Message-Type

This AVP contains the type of surveillance message.

Vendor ID 4491

VSA Type 214

AVP Type ENUM

Supported enumerated value(s):

0 REPORT

1 CORRELATE

2 CARRIER_INFO

AVP Flag M

Event-Report-Indication

This AVP specifies which type of changes will trigger an event report from the PCRF. This AVP is used to report an event coming from BBERF/PCEF and also to provide information about some event-triggers to the PCRF.

Vendor ID 10415

VSA Type 1033

AVP Type GROUPED

Supported group value(s):

[EVENT_TRIGGER]

[RAT_TYPE]

[QOS_INFORMATION]

[RAI]

[3GPP_USER_LOCATION_INFO]

[TRACE_DATA]

[TRACE_REFERENCE]

[3GPP2_BSID]

[3GPP_MS_TIMEZONE]

[3GPP_SGSN_ADDRESS]

[3GPP_SGSN_IPV6_ADDRESS]

AVP Flag M

Event-Timestamp

This AVP contains the time the event was reported.

Vendor ID 0

VSA Type 55

AVP Type TIME

AVP Flag M

Event-Trigger

This AVP indicates an event that shall cause a re-request of charging rules.

Vendor ID 10415

VSA Type 1006

AVP Type ENUM

Supported enumerated value(s):

0 SGSN_CHANGE

1 QOS_CHANGE

2 RAT_CHANGE

3 TFT_CHANGE

4 PLMN_CHANGE

5 LOSS_OF_FLOW

6 RECOVERY_OF_FLOW

7 IP_CAN_CHANGE

8 GW_PCEF_MALFUNCTION

9 RESOURCES_LIMITATION

10 MAX_NR_BEARERS_REACHED

11 QOS_CHANGE_EXCEEDING_AUTHORIZATION

12 RAI_CHANGE

13 USER_LOCATION_CHANGE

14 NO_EVENT_TRIGGERS

15 OUT_OF_CREDIT

16 REALLOCATION_OF_CREDIT

17 REVALIDATION_TIMEOUT

18 UE_IP_ADDRESS_ALLOCATE

19 UE_IP_ADDRESS_RELEASE

20 DEFAULT_EPS_BEARER_QOS_CHANGE

21 AN_GW_CHANGE

22 SUCCESSFUL_RESOURCE_ALLOCATION

23 RESOURCE_MODIFICATION_REQUEST

24 PGW_TRACE_CONTROL

25 UE_TIME_ZONE_CHANGE

26 TAI_CHANGE

27 ECGI_CHANGE

28 CHARGING_CORRELATION_EXCHANGE

29 APN_AMBR_MODIFICATION_FAILURE

33 USAGE_REPORT

34 DEFAULT_EPS_BEARER_QOS_MODIFICATION_FAILURE

39 APPLICATION_START

40 APPLICATION_STOP

44 SERVICE_FLOW_DETECTION

45 ACCESS_NETWORK_INFO_REPORT

2000 PRESERVATION_CHANGED

2001 REACTIVATION_CHANGED

1000 TFT_DELETED

1001 LOSS_OF_BEARER

1002 RECOVERY_OF_BEARER

1003 POLICY_ENFORCEMENT_FAILED

2003 TETHERING_FLOW_DETECTED

10001 SESSION_RECOVERY

10002 SESSION_SYNC

AVP Flag M

Event-Type

This AVP contains information about the type of chargeable telecommunication service/event for which the accounting-request message is generated.

Vendor ID 10415

VSA Type 823

AVP Type GROUPED

Supported group value(s):

[SIP_METHOD]

[EVENT]

[EXPIRES]

AVP Flag M

Execution-Time

Execution-Time

Vendor ID 9

VSA Type 132025

AVP Type TIME

AVP Flag N/A

Experimental-Result

This AVP contains the Result code of SUCCESS or FAILURE. The exact value is specific to Vendor-Id.

Vendor ID 0

VSA Type 297

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[EXPERIMENTAL_RESULT_CODE]

AVP Flag M

Experimental-Result-Code

This AVP contains vendor-specific result codes to indicate temporary or permanent failures.

Vendor ID 0

VSA Type 298

AVP Type ENUM

Supported enumerated value(s):

1001 DIAMETER_MULTI_ROUND_AUTH

2001 DIAMETER_SUCCESS

2002 DIAMETER_LIMITED_SUCCESS

2021 DIAMETER_PDP_CONTEXT_DELETION_INDICATION

2003 DIAMETER_UNREGISTERED_SERVICE

2004 DIAMETER_SUCCESS_NOT_SUPPORTED_USER_DATA

2005 DIAMETER_SUCCESS_SERVER_NAME_NOT_STORED

3001 DIAMETER_COMMAND_UNSUPPORTED

3002 DIAMETER_UNABLE_TO_DELIVER

3003 DIAMETER_REALM_NOT_SERVED

3004 DIAMETER_TOO_BUSY

3005 DIAMETER_LOOP_DETECTED

3006 DIAMETER_REDIRECT_INDICATION

3007 DIAMETER_APPLICATION_UNSUPPORTED

3008 DIAMETER_INVALID_HDR_BITS

3009 DIAMETER_INVALID_AVP_BITS

3010 DIAMETER_UNKNOWN_PEER

4001 DIAMETER_AUTHENTICATION_REJECTED

4002 DIAMETER_OUT_OF_SPACE

4003 ELECTION_LOST

4010 DIAMETER_END_USER_SERVICE_DENIED

4011 DIAMETER_CREDIT_CONTROL_NOT_APPLICABLE

4012 DIAMETER_CREDIT_LIMIT_REACHED

4041 INSUFFICIENT-RESOURCES

4043 COMMIT-FAILURE

4044 REFRESH-FAILURE

4045 QOS-PROFILE-FAILURE

4046 ACCESS-PROFILE-FAILURE

4047 PRIORITY-NOT-GRANTED

4100 DIAMETER_USER_DATA_NOT_AVAILABLE

4101 DIAMETER_PRIOR_UPDATE_IN_PROGRESS

4121 DIAMETER_ERROR_OUT_OF_RESOURCES

4141 DIAMETER_PCC_BEARER_EVENT

4142 DIAMETER_BEARER_EVENT

4143 DIAMETER_AN_GW_FAILED

4144 DIAMETER_PENDING_TRANSACTION

4181 AUTHENTICATION_DATA_UNAVAILABLE

4196 DIAMETER_REQUESTED_SESSION_NOT_FOUND

4197 DIAMETER_SESSION_RECOVERY_REQUESTED

4199 DIAMETER_PCRF_TOO_BUSY

5001 DIAMETER_AVP_UNSUPPORTED

5002 DIAMETER_UNKNOWN_SESSION_ID

5003 DIAMETER_AUTHORIZATION_REJECTED

5004 DIAMETER_INVALID_AVP_VALUE

5005 DIAMETER_MISSING_AVP

5006 DIAMETER_RESOURCES_EXCEEDED

5007 DIAMETER_CONTRADICTING_AVPS

5008 DIAMETER_AVP_NOT_ALLOWED

5009 DIAMETER_AVP_OCCURS_TOO_MANY_TIMES

5010 DIAMETER_NO_COMMON_APPLICATION

5011 DIAMETER_UNSUPPORTED_VERSION

5012 DIAMETER_UNABLE_TO_COMPLY

5013 DIAMETER_INVALID_BIT_IN_HEADER

5014 DIAMETER_INVALID_AVP_LENGTH

5015 DIAMETER_INVALID_MESSAGE_LENGTH

5016 DIAMETER_INVALID_AVP_BIT_COMBO

5017 DIAMETER_NO_COMMON_SECURITY

5021 BINDING-FAILURE

5030 DIAMETER_USER_UNKNOWN

5031 DIAMETER_RATING_FAILED

5041 MODIFICATION-FAILURE

5061 INVALID_SERVICE_INFORMATION

5062 FILTER_RESTRICTIONS

5063 REQUESTED_SERVICE_NOT_AUTHORIZED

5064 DUPLICATED_AF_SESSION

5065 IP_CAN_SESSION_NOT_AVAILABLE

5066 UNAUTHORIZED_NON_EMERGENCY_SESSION

5067 UNAUTHORIZED_SPONSORED_DATA_CONNECTIVITY

5100 DIAMETER_ERROR_USER_DATA_NOT_RECOGNIZED

5101 DIAMETER_ERROR_OPERATION_NOT_ALLOWED

5102 DIAMETER_ERROR_USER_DATA_CANNOT_BE_READ

5103 DIAMETER_ERROR_USER_DATA_CANNOT_BE_MODIFIED

5104 DIAMETER_ERROR_USER_DATA_CANNOT_BE_NOTIFIED

5106 DIAMETER_ERROR_SUBS_DATA_ABSENT

5107 DIAMETER_ERROR_NO_SUBSCRIPTION_TO_DATA

5108 DIAMETER_ERROR_DSAI_NOT_AVAILABLE

5120 DIAMETER_ERROR_START_INDICATION

5121 DIAMETER_ERROR_STOP_INDICATION

5122 DIAMETER_ERROR_UNKNOWN_MBMS_BEARER_SERVICE

5123 DIAMETER_ERROR_SERVICE_AREA

5140 DIAMETER_ERROR_INITIAL_PARAMETERS

5141 DIAMETER_ERROR_TRIGGER_EVENT

5142 DIAMETER_PCC_RULE_EVENT

5143 DIAMETER_ERROR_BEARER_NOT_AUTHORIZED

5144 DIAMETER_ERROR_TRAFFIC_MAPPING_INFO_REJECTED

5145 DIAMETER_QOS_RULE_EVENT

5147 DIAMETER_ERROR_CONFLICTING_REQUEST

5199 DIAMETER_NEWER_SESSION_DETECTED

5420 ERROR_UNKNOWN_EPS_SUBSCRIPTION

5421 ERROR_RAT_NOT_ALLOWED

5402 ERROR_ROAMING_NOT_ALLOWED

5422 ERROR_EQUIPMENT_UNKNOWN

5198 DIAMETER_OVERLOAD_RETRY_NOT_ALLOWED_TO_ANY

5999 DIAMETER_GX_APN_CHANGE

5510 DIAMETER_ERROR_UNAUTHORIZED_REQUESTING_ENTITY

5511 DIAMETER_ERROR_UNAUTHORIZED_SERVICE

5513 DIAMETER_ERROR_CONFIGURATION_EVENT_STORAGE_NOT_SUCCESSFUL

5514 DIAMETER_ERROR_CONFIGURATION_EVENT_NON_EXISTANT

5650 DIAMETER_ERROR_REQUESTED_LOCATION_NOT_SERVED

5651 DIAMETER_ERROR_INVALID_EPS_BEARER

5998 DIAMETER_ERROR_NIDD_CONFIGURATION_NOT_AVAILABLE

5997 DIAMETER_ERROR_SCEF_REFERENCE_ID_UNKNOWN

5653 DIAMETER_ERROR_USER_TEMPORARILY_UNREACHABLE

4221 DIAMETER_ERROR_UNREACHABLE_USER

AVP Flag M

Expiration-Date

This AVP contains information on when the subscription to the CSG-Id expires.

Vendor ID 10415

VSA Type 1439

AVP Type TIME

AVP Flag M

Expires

This AVP contains the content of the "Expires" header.

Vendor ID 10415

VSA Type 888

AVP Type UINT32

AVP Flag M

Exponent

This AVP contains the exponent value to be applied for the Value-Digit AVP within the Unit-Value AVP.

Vendor ID 0

VSA Type 429

AVP Type INT32

AVP Flag M

Extended-APN-AMBR-DL

Extended-APN-AMBR-DL

Vendor ID 10415

VSA Type 2848

AVP Type UINT32

AVP Flag M

Extended-APN-AMBR-UL

Extended-APN-AMBR-UL

Vendor ID 10415

VSA Type 2849

AVP Type UINT32

AVP Flag M

Extended-Max-Requested-BW-DL

Extended-Max-Requested-BW-DL

Vendor ID 10415

VSA Type 554

AVP Type UINT32

AVP Flag M

Extended-Max-Requested-BW-UL

Extended-Max-Requested-BW-DL

Vendor ID 10415

VSA Type 555

AVP Type UINT32

AVP Flag M

Extended-GBR-DL

Extended-GBR-DL

Vendor ID 10415

VSA Type 2850

AVP Type UINT32

AVP Flag M

Extended-GBR-UL

Extended-GBR-UL

Vendor ID 10415

VSA Type 2851

AVP Type UINT32

AVP Flag M

Ext-PDP-Address

Ext-PDP-Address

Vendor ID 10415

VSA Type 1621

AVP Type ADDRESS

AVP Flag M

Ext-PDP-Type

Ext-PDP-Type

Vendor ID 10415

VSA Type 1620

AVP Type OCTETSTRING

AVP Flag M

Extended-PCO

Extended-PCO

Vendor ID 10415

VSA Type 4313

AVP Type OCTETSTRING

AVP Flag M

Extended-QoS-Filter-Rule

This AVP identifies one or more traffic flows together with a set of QoS parameters that should be applied to the flow(s) by the Resource Management Function.

Vendor ID 0

VSA Type 6066

AVP Type UINT32

AVP Flag M

External-Client

This AVP contains the identities of the external clients that are allowed to locate a target UE for a MT-LR.

Vendor ID 10415

VSA Type 1479

AVP Type GROUPED

Supported group value(s):

[CLIENT_IDENTITY]

[GMLC_RESTRICTION]

[NOTIFICATION_TO_UE_USER]

AVP Flag M

External-Identifier

External-Identifier

Vendor ID 10415

VSA Type 3111

AVP Type UTF8STRING

AVP Flag M

FID

This AVP contains the Flow Correlation ID.

Vendor ID 10415

VSA Type 7003

AVP Type OCTETSTRING

AVP Flag M

Failed-AVP

This AVP contains the missing and/or unsupported AVPs that caused the failure.

Vendor ID 0

VSA Type 279

AVP Type GROUPED

Supported group value(s): none

AVP Flag M

Failed-Preload-Obj-Name

Failed-Preload-Obj-Name

Vendor ID 9

VSA Type 131191

AVP Type ENUM

Supported group value(s):

[POLICY_PRELOAD_ERROR_CODE]

[POLICY_MAP_NAME]

[BILLING_POLICY_NAME]

[CONTENT_NAME]

[SERVICE_NAME]

[BILLING_PLAN_NAME]

AVP Flag M

Failed-Preload-Object

Failed-Preload-Object

Vendor ID 9

VSA Type 131152

AVP Type GROUPED

Supported group value(s):

[POLICY_PRELOAD_OBJECT_TYPE]

[FAILED_PRELOAD_OBJ_NAME]

AVP Flag M

Feature-List

This AVP contains a bit mask indicating the supported features of an application.

Vendor ID 10415

VSA Type 630

AVP Type UINT32

AVP Flag M

Feature-List-ID

This AVP contains the identity of the featured list.

Vendor ID 10415

VSA Type 629

AVP Type UINT32

AVP Flag M

Feature-List-ID-Resp

This AVP contains the identity of the featured list.

Vendor ID 10415

VSA Type 629

AVP Type UINT32

AVP Flag N/A

Feature-List-Resp

This AVP contains a bit mask indicating the supported features of an application.

Vendor ID 10415

VSA Type 630

AVP Type UINT32

AVP Flag N/A

Filter-Id

This AVP contains the name of the filter list for the user.

Vendor ID 0

VSA Type 11

AVP Type UTF8STRING

AVP Flag M

Filter-Rule

Filter-Rule

Vendor ID 0

VSA Type 509

AVP Type UINT32

AVP Flag M

Final-Unit-Action

This AVP defines the behavior of the service element when the user's account cannot cover the cost of the service.

Vendor ID 0

VSA Type 449

AVP Type ENUM

Supported enumerated value(s):

0 TERMINATE

1 REDIRECT

2 RESTRICT_ACCESS

AVP Flag M

Final-Unit-Indication

This AVP indicates that the Granted-Service-Unit AVP in the Credit-Control-Answer, or in the AA answer, contains the final units for the service.

Vendor ID 0

VSA Type 430

AVP Type GROUPED

Supported group value(s):

[FINAL_UNIT_ACTION]

[RESTRICTION_FILTER_RULE]

[FILTER_ID]

[REDIRECT_SERVER]

AVP Flag M

Firmware-Revision

Support for Vendor Specific Applications.

Vendor ID 0

VSA Type 267

AVP Type UINT32

AVP Flag N/A

First-Packet-Timestamp

First-Packet-Timestamp

Vendor ID 9

VSA Type 131158

AVP Type UINT32

AVP Flag N/A

Flow-Description

This AVP contains the service flow filter parameters for a charging rule.

Vendor ID 10415

VSA Type 507

AVP Type IPFILTERRULE

AVP Flag M

Flow-Description-Info

This grouped AVP is used within the Flow-Info AVP to identify a flow and associated precedence value from the AGW to the PCRF.

Vendor ID 5535

VSA Type 1022

AVP Type GROUPED

Supported group value(s):

[FLOW_DESCRIPTION]

[PRECEDENCE]

AVP Flag M

Flow-Direction

This AVP indicates the direction/directions that a filter is applicable, downlink only, uplink only or both down- and uplink (bidirectional).

Vendor ID 10415

VSA Type 1080

AVP Type ENUM

Supported enumerated value(s):

0 UNSPECIFIED

1 DOWNLINK

2 UPLINK

3 BIDIRECTIONAL

AVP Flag M

Flow-Grouping

This AVP indicates that no other IP Flows shall be transported together with the listed IP Flows in the same PDP context(s).

Vendor ID 10415

VSA Type 508

AVP Type GROUPED

Supported group value(s):

[FLOWS]

AVP Flag M

Flow-Identifier

This AVP contains the identifier of the IP flow(s) of a given Flow-Info to which specific information refers.

Vendor ID 5535

VSA Type 1008

AVP Type OCTETSTRING

AVP Flag M

Flow-Info

This AVP contains the customized information of the IP flow(s). This is a unique identifier within the context of an IP-CAN session for the IP flow(s) given within the same Flow-Info AVP. The flow identifier is selected by AGW. The Flow-Description AVP(s) describe the flow using an IPFilterRule. If two Flow-Description AVPs are included, one shall represent the uplink and the other the downlink.

Vendor ID 5535

VSA Type 1007

AVP Type GROUPED

Supported group value(s):

[FLOW_IDENTIFIER]

[FLOW_DESCRIPTION_INFO]

[REQUESTED_QOS]

[GRANTED_QOS]

[FLOW_STATUS]

AVP Flag M

Flow-Information

This AVP contains the information from a single IP flow packet filter including the flow description.

Vendor ID 10415

VSA Type 1058

AVP Type GROUPED

Supported group value(s):

[FLOW_DESCRIPTION]

[PACKET_FILTER_IDENTIFIER]

[TOS_TRAFFIC_CLASS]

[SECURITY_PARAMETER_INDEX]

[FLOW_LABEL]

[FLOW_DIRECTION]

AVP Flag M

Flow-Label

This AVP contains the IPv6 flow label header field.

Vendor ID 10415

VSA Type 1057

AVP Type OCTETSTRING

AVP Flag M

Flow-Number

This AVP contains the ordinal number of the IP flow(s).

Vendor ID 10415

VSA Type 509

AVP Type UINT32

AVP Flag M

Flow-Operation

This AVP indicates the IP-CAN flow event that causes a request for PCC rules.

Vendor ID 5535

VSA Type 1006

AVP Type ENUM

Supported enumerated value(s):

0 TERMINATION

1 ESTABLISHMENT

2 MODIFICATION

AVP Flag M

Flow-Status

This AVP indicates whether the IP flow(s) are enabled or disabled.

Vendor ID 10415

VSA Type 511

AVP Type ENUM

Supported enumerated value(s):

0 ENABLED-UPLINK

1 ENABLED-DOWNLINK

2 ENABLED

3 DISABLED

4 REMOVED

5 TERMINATE

AVP Flag M

Flow-Status-Policy-Mismatch

Flow-Status-Policy-Mismatch

Vendor ID 9

VSA Type 131164

AVP Type ENUM

Supported enumerated value(s):

0 FORWARD

1 BLOCK

AVP Flag M

Flow-Usage

This AVP contains information about the usage of IP Flows.

Vendor ID 10415

VSA Type 512

AVP Type ENUM

Supported enumerated value(s):

0 NO_INFORMATION

1 RTCP

2 AF_SIGNALLING

AVP Flag M

Flows

This AVP contains the flow identifiers of the IP flows related to a charging rule as provided by the Application Function (AF).

Vendor ID 10415

VSA Type 510

AVP Type GROUPED

Supported group value(s):

[MEDIA_COMPONENT_NUMBER]

[FLOW_NUMBER]

AVP Flag M

Framed-Appletalk-Link

This AVP contains the AppleTalk network number that should be used for the serial link to the user, which is another AppleTalk router.

Vendor ID 0

VSA Type 37

AVP Type UINT32

AVP Flag M

Framed-Appletalk-Network

This AVP contains the AppleTalk Network number that the NAS should probe to allocate an AppleTalk node for the user.

Vendor ID 0

VSA Type 38

AVP Type UINT32

AVP Flag M

Framed-Appletalk-Zone

This AVP contains the AppleTalk Default Zone to be used for the user.

Vendor ID 0

VSA Type 39

AVP Type OCTETSTRING

AVP Flag M

Framed-Compression

This AVP contains the compression protocol to be used for the link.

Vendor ID 0

VSA Type 13

AVP Type ENUM

Supported enumerated value(s):

0 None

1 VJ_TCP-IP_header_compression

2 IPX-header-compression

3 Stac-LZS-compression

AVP Flag M

Framed-IP-Address

This AVP contains an IPv4 address of the type specified in the attribute value to be configured for the user.

Vendor ID 0

VSA Type 8

AVP Type OCTETSTRING

AVP Flag M

Framed-IP-Netmask

This AVP contains the four octets of the IPv4 netmask to be configured for the user when the user is a router to a network.

Vendor ID 0

VSA Type 9

AVP Type OCTETSTRING

AVP Flag M

Framed-IPX-Network

This AVP contains the IPX network number to be configured for the user.

Vendor ID 0

VSA Type 23

AVP Type UINT32

AVP Flag M

Framed-IPv6-Pool

This AVP contains the name of an assigned pool that must be used to assign an IPv6 prefix for the user.

Vendor ID 0

VSA Type 100

AVP Type OCTETSTRING

AVP Flag M

Framed-IPv6-Prefix

This AVP contains the IPv6 prefix to be configured for the user. One or more AVPs MAY be used in authorization requests as a hint to the server that a specific IPv6 prefixes are desired.

Vendor ID 0

VSA Type 97

AVP Type OCTETSTRING

AVP Flag M

Framed-IPv6-Route

This AVP contains the ASCII routing information to be configured for the user on the NAS.

Vendor ID 0

VSA Type 99

AVP Type UTF8STRING

AVP Flag N/A

Framed-Interface-Id

This AVP contains the IPv6 interface identifier to be configured for the user.

Vendor ID 0

VSA Type 96

AVP Type UINT64

AVP Flag M

Framed-MTU

This AVP contains the Maximum Transmission Unit (MTU) to be configured for the user, when it is not negotiated by some other means (such as PPP).

Vendor ID 0

VSA Type 12

AVP Type UINT32

AVP Flag M

Framed-Pool

This AVP contains the name of an assigned address pool that should be used to assign an address for the user.

Vendor ID 0

VSA Type 88

AVP Type OCTETSTRING

AVP Flag M

Framed-Protocol

This AVP contains the framing to be used for framed access.

Vendor ID 0

VSA Type 7

AVP Type ENUM

Supported enumerated value(s):

1 PPP

2 SLIP

3 AppleTalk-Remote-Access-Protocol_ARAP

4 Gandalf-proprietary-SingleLink_MultiLink-protocol

5 Xylogics-proprietary_IPX-SLIP

6 X75-Synchronous

AVP Flag M

Framed-Route

This AVP contains the ASCII routing information to be configured for the user on the NAS.

Vendor ID 0

VSA Type 22

AVP Type UTF8STRING

AVP Flag M

Framed-Routing

This AVP contains the routing method for the user when the user is a router to a network.

Vendor ID 0

VSA Type 10

AVP Type ENUM

Supported enumerated value(s):

0 None

1 Send-routing-packets

2 Listen-for-routing-packets

3 Send-and-Listen

AVP Flag M

From-SIP-Header

This AVP contains the information in the "From" header

Vendor ID 10415

VSA Type 644

AVP Type OCTETSTRING

AVP Flag N/A

G-S-U-Pool-Identifier

Specifies the credit pool from which credit is drawn for this unit type.

Vendor ID 0

VSA Type 453

AVP Type UINT32

AVP Flag M

G-S-U-Pool-Reference

This AVP contains a reference to a credit pool, a unit-type and a multiplier (using the Unit-Value AVP). It is used within Granted-Service-Units AVP to indicate that credit Service-Units AVP to indicate that credit of a particular type is pooled.

Vendor ID 0

VSA Type 457

AVP Type GROUPED

Supported group value(s):

[G_S_U_POOL_IDENTIFIER]

[CC_UNIT_TYPE]

[UNIT_VALUE]

AVP Flag M

GERAN-Vector

This AVP contains Authentication Information for GERAN.

Vendor ID 10415

VSA Type 6019

AVP Type GROUPED

Supported group value(s):

[ITEM_NUMBER]

[RAND]

[SRES]

[KC_KEY]

AVP Flag M

GGSN-Address

This AVP contains IP address of the GGSN used by the GTP control plane for context establishment. It is the same as the IP-address of the GGSN that generated the GPRS Charging ID used in the GCDRs.

Vendor ID 10415

VSA Type 847

AVP Type ADDRESS

AVP Flag M

GMLC-Address

This AVP contains the IPv4 or IPv6 address of the V-GMLC associated with the serving node.

Vendor ID 10415

VSA Type 1474

AVP Type OCTETSTRING

AVP Flag M

GMLC-Number

This AVP contains the ISDN number of the GMLC.

Vendor ID 10415

VSA Type 1474

AVP Type OCTETSTRING

AVP Flag M

GMLC-Restriction

This attritbue contains GMLC Restriction List.

Vendor ID 10415

VSA Type 1481

AVP Type ENUM

Supported enumerated value(s):

0 GMLC_LIST

1 HOME_COUNTRY

AVP Flag M

GMM-Cause

GMM-Cause

Vendor ID 10415

VSA Type 4304

AVP Type UINT32

AVP Flag M

GPRS-Subscription-Data

This AVP contains the information related to the user profile relevant for GPRS.

Vendor ID 10415

VSA Type 1467

AVP Type GROUPED

Supported group value(s):

[COMPLETE_DATA_LIST_INCLUDED_INDICATOR]

[PDP_CONTEXT]

AVP Flag M

Geodetic-Information

This AVP provides geodetic location information of the user.

Vendor ID 10415

VSA Type 1609

AVP Type OCTETSTRING

AVP Flag M

Geographical-Information

This AVP contains geographical location information of the user.

Vendor ID 10415

VSA Type 1608

AVP Type OCTETSTRING

AVP Flag M

Geospatial-Location

This AVP contains location information using the Location Configuration Information (LCI) format.

Vendor ID 13019

VSA Type 356

AVP Type OCTETSTRING

AVP Flag M

Globally-Unique-Address

This AVP contains the UE's address.

Vendor ID 13019

VSA Type 300

AVP Type GROUPED

Supported group value(s):

[FRAMED_IP_ADDRESS]

[ADDRESS_REALM]

AVP Flag M

Granted-QoS

It is used within the Flow-Info AVP to indicate the QoS granted to the UE for a particular IP flow in the high rate packet data radio access network.

Vendor ID 5535

VSA Type 1011

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS]

[MIN_BANDWIDTH_UL]

[MIN_BANDWIDTH_DL]

AVP Flag M

Granted-Service-Unit

This AVP contains the amount of units that the Diameter credit-control client can provide to the end user until the service must be released or the new Credit-Control-Request must be sent.

Vendor ID 0

VSA Type 431

AVP Type GROUPED

Supported group value(s):

[TARIFF_TIME_CHANGE]

[TARIFF_CHANGE_USAGE]

[CC_TIME]

[CC_MONEY]

[CC_TOTAL_OCTETS]

[CC_INPUT_OCTETS]

[CC_OUTPUT_OCTETS]

[CC_SERVICE_SPECIFIC_UNITS]

AVP Flag M

Guaranteed-Bitrate-DL

This AVP contains the guaranteed bit rate allowed for the downlink direction.

Vendor ID 10415

VSA Type 1025

AVP Type UINT32

AVP Flag M

Guaranteed-Bitrate-UL

This AVP contains the guaranteed bit rate allowed for the uplink direction.

Vendor ID 10415

VSA Type 1026

AVP Type UINT32

AVP Flag M

Hash-Value

Hash-Value

Vendor ID 9

VSA Type 132080

AVP Type OCTETSTRING

AVP Flag N/A

HPLMN-ODB

This AVP contains a bit mask indicating the HPLMN specific services of a subscriber that are barred by the operator.

Vendor ID 10415

VSA Type 1418

AVP Type UINT32

AVP Flag M

Header-Class

Header-Class

Vendor ID 9

VSA Type 131223

AVP Type ENUM

Supported group value(s):

[HEADER_CLASS_NAME]

[HEADER_CLASS_MODE]

AVP Flag M

Header-Class-Mode

Header-Class-Mode

Vendor ID 9

VSA Type 131222

AVP Type ENUM

Supported enumerated value(s):

0 EXCLUDE

1 INCLUDE

AVP Flag M

Header-Class-Name

Header-Class-Name

Vendor ID 9

VSA Type 131221

AVP Type UTF8STRING

AVP Flag M

Header-Field-Name

Header-Field-Name

Vendor ID 9

VSA Type 131220

AVP Type UTF8STRING

AVP Flag M

Header-Group-Definition

Header-Group-Definition

Vendor ID 9

VSA Type 131216

AVP Type GROUPED

Supported group value(s):

[HEADER_GROUP_NAME]

[HEADER_INSERT_NAME]

AVP Flag M

Header-Group-Install

Header-Group-Install

Vendor ID 9

VSA Type 131217

AVP Type GROUPED

Supported group value(s):

[HEADER_GROUP_DEFINITION]

AVP Flag M

Header-Group-Name

Header-Group-Name

Vendor ID 9

VSA Type 131215

AVP Type UTF8STRING

AVP Flag M

Header-Group-Remove

Header-Group-Remove

Vendor ID 9

VSA Type 131218

AVP Type GROUPED

Supported group value(s):

[HEADER_GROUP_NAME]

AVP Flag M

Header-Insert-Definition

Header-Insert-Definition

Vendor ID 9

VSA Type 131231

AVP Type GROUPED

Supported group value(s):

[HEADER_INSERT_NAME]

[HEADER_FIELD_NAME]

[HEADER_CLASS]

[HEADER_ITEM_CONTAINER]

AVP Flag M

Header-Insert-Install

Header-Insert-Install

Vendor ID 9

VSA Type 131232

AVP Type GROUPED

Supported group value(s):

[HEADER_INSERT_DEFINITION]

AVP Flag M

Header-Insert-Name

Header-Insert-Name

Vendor ID 9

VSA Type 131219

AVP Type UTF8STRING

AVP Flag M

Header-Insert-Remove

Header-Insert-Remove

Vendor ID 9

VSA Type 131233

AVP Type GROUPED

Supported group value(s):

[HEADER_INSERT_NAME]

AVP Flag M

Header-Item

Header-Item

Vendor ID 9

VSA Type 131228

AVP Type ENUM

Supported enumerated value(s):

0 TIMESTAMP

1 QUOTA_SERVER

AVP Flag M

Header-Item-Container

Header-Item-Container

Vendor ID 9

VSA Type 131230

AVP Type GROUPED

Supported group value(s):

[HEADER_ITEM_ENCRYPTION]

[HEADER_ITEM]

[HEADER_ITEM_STRING]

[HEADER_ITEM_RADIUS]

AVP Flag M

Header-Item-Encryption

Header-Item-Encryption

Vendor ID 9

VSA Type 131242

AVP Type ENUM

Supported enumerated value(s):

0 UNENCRYPTED

1 ENCRYPTED

AVP Flag M

Header-Item-Radius

Header-Item-Radius

Vendor ID 9

VSA Type 131227

AVP Type GROUPED

Supported group value(s):

[RADIUS_ATTRIBUTE_TYPE]

[RADIUS_VSA_VENDOR_ID]

[RADIUS_VSA_SUBATTRIBUTE_TYPE]

AVP Flag M

Header-Item-String

Header-Item-String

Vendor ID 9

VSA Type 131229

AVP Type UTF8STRING

AVP Flag M

Home-Agent

This AVP contains the HA IPv4 address that the MS requests or the HA IPv4 address that the H-AAA assigns.

Vendor ID 5535

VSA Type 3

AVP Type ADDRESS

AVP Flag M

Homogeneous-Support-of-IMS-Voice-Over-PS-Sessions

Homogeneous-Support-of-IMS-Voice-Over-PS-Sessions

Vendor ID 10415

VSA Type 1493

AVP Type ENUM

Supported enumerated value(s):

0 NOT_SUPPORTED

1 SUPPORTED

AVP Flag M

Horizontal-Accuracy

This AVP is of type Unsigned32. Bits 6-0 correspond to Uncertainty Code defined in 3GPP TS 23.032. The horizontal location error should be less than the error indicated by the uncertainty code with 67% confidence. Bits 7 to 31 can be ignored.

Vendor ID 10415

VSA Type 2505

AVP Type UINT32

AVP Flag M

Host-IP-Address

This AVP contains IP address of the mobile station.

Vendor ID 0

VSA Type 257

AVP Type ADDRESS

AVP Flag M

HSS-ID

HSS-ID

Vendor ID 10415

VSA Type 3325

AVP Type OCTETSTRING

AVP Flag N/A

ICS-Indicator

ICS-Indicator

Vendor ID 10415

VSA Type 1491

AVP Type ENUM

Supported enumerated value(s):

0 FALSE

1 TRUE

AVP Flag M

IDA-Flags

The IDA-Flags AVP contains a bit mask.

Vendor ID 10415

VSA Type 1441

AVP Type UINT32

AVP Flag M

IDR-Flags

This AVP contains a bit mask.

Vendor ID 10415

VSA Type 1490

AVP Type UINT32

AVP Flag M

IMEI

This AVP contains the International Mobile Equipment Identity (IMEI).

Vendor ID 10415

VSA Type 6003

AVP Type UTF8STRING

AVP Flag M

IMS-Charging-Identifier

This AVP contains the IMS Charging Identifier (ICID) as generated by an IMS node for a SIP session.

Vendor ID 10415

VSA Type 841

AVP Type UTF8STRING

AVP Flag M

IMS-Communication-Service-Identifier

This AVP contains the IMS Communication Service Identifier (ICSI) as contained in the P-Asserted-Service header of a SIP request to identify an IMS Communication Service as defined in TS 24.229.

Vendor ID 10415

VSA Type 1281

AVP Type UTF8STRING

AVP Flag M

IMS-Information

This grouped AVP allows the transmission of additional IMS service specific information elements.

Vendor ID 10415

VSA Type 876

AVP Type GROUPED

Supported group value(s):

[EVENT_TYPE]

[ROLE_OF_NODE]

[NODE_FUNCTIONALITY]

[USER_SESSION_ID]

[CALLING_PARTY_ADDRESS]

[CALLED_PARTY_ADDRESS]

[CALLED_ASSERTED_IDENTITY]

[ASSOCIATED_URI]

[TIME_STAMPS]

[APPLICATION_SERVER_INFORMATION]

[INTER_OPERATOR_IDENTIFIER]

[IMS_CHARGING_IDENTIFIER]

[IMS_COMMUNICATION_SERVICE_IDENTIFIER]

[ONLINE_CHARGING_FLAG]

[SDP_SESSION_DESCRIPTION]

[SDP_MEDIA_COMPONENT]

[MESSAGE_BODY]

[CAUSE_CODE]

[ACCESS_NETWORK_INFORMATION]

[EARLY_MEDIA_DESCRIPTION]

[REAL_TIME_TARIFF_INFORMATION]

AVP Flag M

IMS-Voice-Over-PS-Sessions-Supported

IMS-Voice-Over-PS-Sessions-Supported

Vendor ID 10415

VSA Type 1492

AVP Type ENUM

Supported enumerated value(s):

0 NOT_SUPPORTED

1 SUPPORTED

AVP Flag M

IMSI-Unauthenticated-Flag

This AVP indicates whether or not the served IMSI is authenticated.

Vendor ID 10415

VSA Type 2308

AVP Type ENUM

Supported enumerated value(s):

0 AUTHENTICATED

1 UNAUTHENTICATED

AVP Flag M

IP-CAN-Type

This AVP indicate the type of Connectivity Access Network in which the user is connected.

Vendor ID 10415

VSA Type 1027

AVP Type ENUM

Supported enumerated value(s):

0 3GPP-GPRS

1 DOCSIS

2 xDSL

3 WiMAX

4 3GPP2

5 3GPP-EPS

6 NON-3GPP-EPS

AVP Flag M

IP-MMS

IP mobility selector.

Vendor ID 10415

VSA Type 6076

AVP Type UINT32

AVP Flag M

IP-Realm-Default-Indication

IP-Realm-Default-Indication

Vendor ID 10415

VSA Type 2603

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

IP-SM-GW-SM-Delivery-Outcome

IP-SM-GW-SM-Delivery-Outcome

Vendor ID 10415

VSA Type 3320

AVP Type GROUPED

Supported group value(s):

[SM_DELIVERY_CAUSE]

[ABSENT_USER_DIAGNOSTIC_SM]

AVP Flag M

IP-Version-Authorized

This AVP indicates whether the MS is authorized for using IPv4 and/or IPv6.

Vendor ID 5535

VSA Type 11

AVP Type ENUM

Supported enumerated value(s):

0 IPv4_or_IPv6

1 IPv4_ONLY

2 IPv6_ONLY

AVP Flag M

Identity-Set

This AVP contains the requested set of IMS Public identities.

Vendor ID 0

VSA Type 708

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag N/A

Identity-with-Emergency-Registration

Identity-with-Emergency-Registration

Vendor ID 10415

VSA Type 651

AVP Type GROUPED

Supported group value(s):

[USER_NAME]

[PUBLIC_IDENTITY]

[RESTORATION_INFO]

AVP Flag N/A

Idle-Timeout

Sets the maximum number of consecutive seconds of idle connection allowable to the user before termination of the session or before a prompt is issued.

Vendor ID 0

VSA Type 28

AVP Type UINT32

AVP Flag M

Immediate-Response-Preferred

This AVP indicates which type of AV is requested for immediate use in the MME/SGSN.

Vendor ID 10415

VSA Type 6015

AVP Type UINT32

AVP Flag M

Inband-Security-Id

Advertise support of the Security portion of the application.

Vendor ID 0

VSA Type 299

AVP Type ENUM

Supported enumerated value(s):

0 NO_INBAND_SECURITY

1 TLS

AVP Flag M

Incoming-Trunk-Group-ID

This AVP contains the incoming PSTN leg.

Vendor ID 0

VSA Type 852

AVP Type UTF8STRING

AVP Flag M

Initial-IMS-Charging-Identifier

Initial-IMS-Charging-Identifier

Vendor ID 10415

VSA Type 2321

AVP Type UTF8STRING

AVP Flag M

Initial-Timeout

Initial-Timeout

Vendor ID 9

VSA Type 131107

AVP Type UINT32

AVP Flag N/A

Integrity-Key

This AVP contains the Integrity Key (IK).

Vendor ID 10415

VSA Type 626

AVP Type OCTETSTRING

AVP Flag M

Inter-Operator-Identifier

This AVP contains the identification of the network neighbors (originating and terminating) as exchanged via SIP signalling. The Inter-Operator-Identifier AVP contains the CIC code present in the Carrier-info message.

Vendor ID 10415

VSA Type 838

AVP Type GROUPED

Supported group value(s):

[ORIGINATING_IOI]

[TERMINATING_IOI]

AVP Flag M

Interleaved

Interleaved

Vendor ID 9

VSA Type 131196

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Intermediate-CDR-Threshold

Intermediate-CDR-Threshold

Vendor ID 9

VSA Type 131130

AVP Type GROUPED

Supported group value(s):

[CDR_VOLUME_THRESHOLD]

[CDR_TIME_THRESHOLD]

AVP Flag M

Item-Number

If more than one EPS Vector is included within one Authentication-Info AVP, the Item-Number AVP is present within each EPS Vector.

Vendor ID 10415

VSA Type 1419

AVP Type UINT32

AVP Flag M

KASME

This AVP contains the KASME (EAP Authentication Vector).

Vendor ID 10415

VSA Type 1450

AVP Type OCTETSTRING

AVP Flag M

KC-Key

This AVP contains the Ciphering Key.

Vendor ID 10415

VSA Type 1453

AVP Type OCTETSTRING

AVP Flag M

L7-Application-Description

This AVP carries L7 information with the L7 dynamic rule. This L7 filter is used by rule matching logic.

Vendor ID 9

VSA Type 132058

AVP Type GROUPED

Supported group value(s):

[L7_PROTOCOL_NAME]

[L7_FIELD]

[L7_OPERATOR]

[L7_VALUE]

[L7_CASE_SENSITIVITY]

[L7_CONTENT_FILTERING_STATE]

AVP Flag N/A

L7-Case-Sensitivity

This AVP indicates if the L7-Value field has to be compared with or without case-sensitivity.

Vendor ID 9

VSA Type 132063

AVP Type ENUM

Supported enumerated value(s):

1 CASE_SENSTIVE

2 NOT_CASE_SENSTIVE

AVP Flag N/A

L7-Content-Filtering-State

This attribute carries information about Content Filtering status (CF state) of L7 rules. This attribute indicates whether or not the ICAP functionality is enabled or disabled for L7 charging rule definition received for installation from PCRF. Based on this attribute value, the traffic matching to the dynamic rule is sent to ICAP server.

Vendor ID 9

VSA Type 132067

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_CF

1 ENABLE_CF

AVP Flag N/A

L7-Field

This AVP specifies the name of field to be matched from the protocol.

Vendor ID 9

VSA Type 132060

AVP Type ENUM

Supported enumerated value(s):

1 URL

2 ANY-MATCH

AVP Flag N/A

L7-Operator

This AVP specifies the operator to be used for matching the values.

Vendor ID 9

VSA Type 132061

AVP Type ENUM

Supported enumerated value(s):

1 EQUALS

2 STARTS_WITH

3 ENDS_WITH

4 CONTAINS

5 NOT_EQUALS

6 NOT_START_WITH

7 NOT_END_WITH

8 NOT_CONTAINS

AVP Flag N/A

L7-Parse-Length

L7-Parse-Length

Vendor ID 9

VSA Type 131128

AVP Type UINT32

AVP Flag N/A

L7-Parse-Protocol-Type

L7-Parse-Protocol-Type

Vendor ID 9

VSA Type 131085

AVP Type ENUM

Supported enumerated value(s):

0 HTTP

1 IMAP

2 OTHER

3 POP3

4 RTSP

5 SMTP

8 SIP

9 FTP

10 NBAR

11 DNS

12 HTTP-INSERT

AVP Flag M

L7-Protocol-Name

This AVP specifies the protocol name for the application. This is an enumerated value received from PCRF.

Vendor ID 9

VSA Type 132059

AVP Type ENUM

Supported enumerated value(s):

1 HTTP

AVP Flag N/A

L7-Value

This AVP mentions the value that is to be compared with the one received in the user packet. This is a string with length of 256 characters.

Vendor ID 9

VSA Type 132062

AVP Type OCTETSTRING

AVP Flag N/A

LCS-Capabilities-Sets

LCS-Capabilities-Sets

Vendor ID 10415

VSA Type 2404

AVP Type UINT32

AVP Flag M

LCS-Client-Type

LCS-Client-Type

Vendor ID 10415

VSA Type 1241

AVP Type ENUM

Supported enumerated value(s):

0 EMERGENCY_SERVICES

1 VALUE_ADDED_SERVICES

2 PLMN_OPERATOR_SERVICES

3 LAWFUL_INTERCEPT_SERVICES

AVP Flag M

LCS-Codeword

This AVP indicates the potential codeword string to send in a notification message to the UE.

Vendor ID 10415

VSA Type 2511

AVP Type UTF8STRING

AVP Flag M

LCS-EPS-Client-Name

LCS-EPS-Client-Name

Vendor ID 10415

VSA Type 2501

AVP Type GROUPED

Supported group value(s):

[LCS_NAME_STRING]

[LCS_FORMAT_INDICATOR]

AVP Flag M

LCS-Format-Indicator

This AVP contains the format of the LCS Client name.

Vendor ID 10415

VSA Type 1237

AVP Type ENUM

Supported enumerated value(s):

0 LOGICAL_NAME

1 EMAIL_ADDRESS

2 MSISDN

3 URL

4 SIP_URL

AVP Flag M

LCS-Info

This AVP contains LCS related information for a subscriber.

Vendor ID 10415

VSA Type 1473

AVP Type GROUPED

Supported group value(s):

[GMLC_ADDRESS]

[LCS_PRIVACYEXCEPTION]

[MO_LR]

AVP Flag M

LCS-Name-String

This AVP contains the LCS Client name.

Vendor ID 10415

VSA Type 1238

AVP Type UTF8STRING

AVP Flag M

LCS-Priority

This AVP indicates the priority of the location request. The value 0 indicates the highest priority, and the value 1 indicates normal priority. All other values are treated as 1 (normal priority).

Vendor ID 10415

VSA Type 2503

AVP Type UINT32

AVP Flag M

LCS-Privacy-Check

LCS-Privacy-Check

Vendor ID 10415

VSA Type 2512

AVP Type ENUM

Supported enumerated value(s):

0 ALLOWED_WITHOUT_NOTIFICATION

1 ALLOWED_WITH_NOTIFICATION

2 ALLOWED_IF_NO_RESPONSE

3 RESTRICTED_IF_NO_RESPONSE

4 NOT_ALLOWED

AVP Flag M

LCS-Privacy-Check-Non-Session

LCS-Privacy-Check-Non-Session

Vendor ID 10415

VSA Type 2521

AVP Type GROUPED

Supported group value(s):

[LCS_PRIVACY_CHECK]

AVP Flag M

LCS-Privacy-Check-Session

LCS-Privacy-Check-Session

Vendor ID 10415

VSA Type 2522

AVP Type GROUPED

Supported group value(s):

[LCS_PRIVACY_CHECK]

AVP Flag M

LCS-PrivacyException

This AVP contains the classes of LCS Client that are allowed to locate any target UE.

Vendor ID 10415

VSA Type 1475

AVP Type GROUPED

Supported group value(s):

[SS_CODE]

[SS_STATUS]

[NOTIFICATION_TO_UE_USER]

[EXTERNAL_CLIENT]

[PLMN_CLIENT]

[SERVICE_TYPE]

AVP Flag M

LCS-QoS

LCS-QoS

Vendor ID 10415

VSA Type 2504

AVP Type GROUPED

Supported group value(s):

[LCS_QOS_CLASS]

[HORIZONTAL_ACCURACY]

[VERTICAL_ACCURACY]

[VERTICAL_REQUESTED]

[RESPONSE_TIME]

AVP Flag M

LCS-QoS-Class

LCS-QoS-Class

Vendor ID 10415

VSA Type 2523

AVP Type ENUM

Supported enumerated value(s):

0 ASSURED

AVP Flag M

LCS-Requestor-Id-String

LCS-Requestor-Id-String

Vendor ID 10415

VSA Type 1240

AVP Type UTF8STRING

AVP Flag M

LCS-Requestor-Name

LCS-Requestor-Name

Vendor ID 10415

VSA Type 2502

AVP Type GROUPED

Supported group value(s):

[LCS_REQUESTOR_ID_STRING]

[LCS_FORMAT_INDICATOR]

AVP Flag M

LCS-Service-Type-ID

This AVP specifies the identifier associated to one of the Service Types for which the LCS client is allowed to locate the particular UE.

Vendor ID 10415

VSA Type 2520

AVP Type UINT32

AVP Flag M

LI-Information

This AVP holds all the other surveillance AVPs.

Vendor ID 4491

VSA Type 218

AVP Type GROUPED

Supported group value(s):

[EVENT_MESSAGE_TYPE]

[ELEMENT_TYPE]

[ELEMENT_ID]

[TAP_ID]

[SIP_MESSAGE]

[DIRECT_MESSAGE]

[DIRECTION]

[DIALOG_ID]

[NEW_DIALOG_ID]

[CORRELATE_REASON]

[BCID]

AVP Flag M

LIPA-Permission

LIPA-Permission

Vendor ID 10415

VSA Type 1618

AVP Type ENUM

Supported enumerated value(s):

0 LIPA-PROHIBITED

1 LIPA-ONLY

2 LIPA-CONDITIONAL

AVP Flag M

Last-Packet-Timestamp

Last-Packet-Timestamp

Vendor ID 9

VSA Type 131159

AVP Type UINT32

AVP Flag N/A

Last-UE-Activity-Time

Last-UE-Activity-Time

Vendor ID 10415

VSA Type 1494

AVP Type TIME

AVP Flag M

Latching-Indication

This AVP contains the latching indication.

Vendor ID 13019

VSA Type 457

AVP Type ENUM

Supported enumerated value(s):

0 LATCH

1 RELATCH

AVP Flag N/A

Line-Identifier

This AVP contains a fixed broadband access line identifier associated with the user.

Vendor ID 13019

VSA Type 500

AVP Type OCTETSTRING

AVP Flag M

Local-GW-Inserted-Indication

Local-GW-Inserted-Indication

Vendor ID 10415

VSA Type 2604

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Local-Sequence-Number

This AVP contains the service data container sequence number; incremented by 1 for each service data container closed.

Vendor ID 10415

VSA Type 2063

AVP Type UINT32

AVP Flag M

Location-Area-Identity

This AVP contains the location area identification of the user.

Vendor ID 10415

VSA Type 1606

AVP Type OCTETSTRING

AVP Flag M

Location-Data

Location-Data

Vendor ID 0

VSA Type 128

AVP Type OCTETSTRING

AVP Flag N/A

Location-Estimate

Location-Estimate

Vendor ID 10415

VSA Type 1242

AVP Type OCTETSTRING

AVP Flag M

Location-Event

Location-Event

Vendor ID 10415

VSA Type 2518

AVP Type ENUM

Supported enumerated value(s):

0 EMERGENCY_CALL_ORIGINATION

1 EMERGENCY_CALL_RELEASE

2 MO_LR

3 EMERGENCY_CALL_HANDOVER

AVP Flag M

Location-Information

This AVP contains the location information (or a pointer to such information) in a form that is suitable for the requesting application.

Vendor ID 13019

VSA Type 350

AVP Type GROUPED

Supported group value(s):

[LINE_IDENTIFIER]

[CIVIC_LOCATION]

[GEOSPATIAL_LOCATION]

AVP Flag M

Location-Information-Configuration

Location-Information-Configuration

Vendor ID 10415

VSA Type 3135

AVP Type GROUPED

Supported group value(s):

[MONTE_LOCATION_TYPE]

[ACCURACY]

AVP Flag M

Location-Information-Radius

Location-Information-Radius

Vendor ID 0

VSA Type 127

AVP Type OCTETSTRING

AVP Flag N/A

Location-Type

Location-Type

Vendor ID 10415

VSA Type 2500

AVP Type ENUM

Supported enumerated value(s):

0 CURRENT_LOCATION

1 CURRENT_OR_LAST_KNOWN_LOCATION

2 INITIAL_LOCATION

3 RESERVED

5 NOTIFICATION_VERIFICATION_ONLY

AVP Flag M

Logical-Access-Id

This AVP contains the identity of the logical access where the user equipment is connected.

Vendor ID 0

VSA Type 302

AVP Type OCTETSTRING

AVP Flag M

Loose-Route-Indication

This AVP indicates to the S-CSCF whether or not the loose route mechanism is required to serve the registered Public User Identities.

Vendor ID 10415

VSA Type 638

AVP Type ENUM

Supported enumerated value(s):

0 LOOSE_ROUTE_NOT_REQUIRED

1 LOOSE_ROUTE_REQUIRED

AVP Flag N/A

MBMS-2G-3G-Indicator

This AVP indicates whether the MBMS bearer service will be delivered in 2G only, 3G only of both coverage areas.

Vendor ID 10415

VSA Type 907

AVP Type ENUM

Supported enumerated value(s):

0 2G

1 3G

2 2G_AND_3G

AVP Flag M

MBMS-Access-Indicator

MBMS-Access-Indicator

Vendor ID 10415

VSA Type 923

AVP Type ENUM

Supported enumerated value(s):

0 UTRAN

1 E-UTRAN

2 UTRAN-AND-E-UTRAN

AVP Flag M

MBMS-BMSC-SSM-IP-Address

This AVP contains the IPv4 address of BMSC for Source Specific Multicasting.

Vendor ID 10415

VSA Type 918

AVP Type UTF8STRING

AVP Flag M

MBMS-BMSC-SSM-IPv6-Address

This AVP contains the IPv6 address of BMSC for Source Specific Multicasting.

Vendor ID 10415

VSA Type 919

AVP Type UTF8STRING

AVP Flag M

MBMS-BMSC-SSM-UDP-Port

MBMS-BMSC-SSM-UDP-Port

Vendor ID 10415

VSA Type 926

AVP Type OCTETSTRING

AVP Flag M

MBMS-Counting-Information

This AVP contains explicit information about whether the MBMS Counting procedures are applicable for the MBMS Service that is about to start.

Vendor ID 10415

VSA Type 914

AVP Type ENUM

Supported enumerated value(s):

0 COUNTING_NOT_APPLICABLE

1 COUNTING_APPLICABLE

AVP Flag M

MBMS-Data-Transfer-Start

MBMS-Data-Transfer-Start

Vendor ID 10415

VSA Type 929

AVP Type UINT64

AVP Flag M

MBMS-Data-Transfer-Stop

MBMS-Data-Transfer-Stop

Vendor ID 10415

VSA Type 930

AVP Type UINT64

AVP Flag M

MBMS-Flags

MBMS-Flags

Vendor ID 10415

VSA Type 931

AVP Type UINT32

AVP Flag M

MBMS-Flow-Identifier

MBMS-Flow-Identifier

Vendor ID 10415

VSA Type 920

AVP Type OCTETSTRING

AVP Flag M

MBMS-GGSN-Address

This AVP contains the IPv4 address of GGSN for user plane data.

Vendor ID 10415

VSA Type 916

AVP Type UTF8STRING

AVP Flag M

MBMS-GGSN-IPv6-Address

This AVP contains the IPv6 address of GGSN for user plane data.

Vendor ID 10415

VSA Type 917

AVP Type UTF8STRING

AVP Flag M

MBMS-GW-SSM-IP-Address

MBMS-GW-SSM-IP-Address

Vendor ID 10415

VSA Type 924

AVP Type OCTETSTRING

AVP Flag M

MBMS-GW-SSM-IPv6-Address

MBMS-GW-SSM-IPv6-Address

Vendor ID 10415

VSA Type 925

AVP Type OCTETSTRING

AVP Flag M

MBMS-GW-UDP-Port

MBMS-GW-UDP-Port

Vendor ID 10415

VSA Type 927

AVP Type OCTETSTRING

AVP Flag M

MBMS-GW-UDP-Port-Indicator

MBMS-GW-UDP-Port-Indicator

Vendor ID 10415

VSA Type 928

AVP Type ENUM

Supported enumerated value(s):

1 UDP-PORT-REQUIRED

AVP Flag M

MBMS-HC-Indicator

MBMS-HC-Indicator

Vendor ID 10415

VSA Type 922

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

MBMS-Required-QoS

This AVP indicates the Quality of Service required for the MBMS bearer service.

Vendor ID 10415

VSA Type 913

AVP Type UTF8STRING

AVP Flag M

MBMS-Service-Area

This AVP indicates the area over which the MBMS bearer service has to be distributed.

Vendor ID 10415

VSA Type 903

AVP Type OCTETSTRING

AVP Flag M

MBMS-Service-Type

This AVP contains explicit information about the type of service that the BM-SC Start Procedure is about to start.

Vendor ID 10415

VSA Type 906

AVP Type ENUM

Supported enumerated value(s):

0 MULTICAST

1 BROADCAST

AVP Flag M

MBMS-Session-Duration

This AVP indicates the estimated session duration, if available.

Vendor ID 10415

VSA Type 904

AVP Type OCTETSTRING

AVP Flag M

MBMS-Session-Identity

This AVP identifies a transmission of a specific MBMS session along with TMGI.

Vendor ID 10415

VSA Type 908

AVP Type OCTETSTRING

AVP Flag M

MBMS-Session-Repetition-number

This AVP contains the session identity repetition number of the MBMS transmission session on the Gmb interface.

Vendor ID 10415

VSA Type 912

AVP Type OCTETSTRING

AVP Flag M

MBMS-StartStop-Indication

This AVP indicates whether it is session start or stop procedure.

Vendor ID 10415

VSA Type 902

AVP Type ENUM

Supported enumerated value(s):

0 START

1 STOP

2 UPDATE

AVP Flag M

MBMS-Time-To-Data-Transfer

This AVP indicates the expected time between reception of the MBMS Session Start and the commencement of the MBMS Data flow.

Vendor ID 10415

VSA Type 911

AVP Type OCTETSTRING

AVP Flag M

MBMS-User-Data-Mode-Indication

This AVP indicates whether the sending entity supports unicast or multicast mode of operation.

Vendor ID 10415

VSA Type 915

AVP Type ENUM

Supported enumerated value(s):

0 UNICAST

1 MULTICAST_AND_UNICAST

AVP Flag M

MBR-Burst-Size-DL

MBR-Burst-Size-DL

Vendor ID 9

VSA Type 132010

AVP Type UINT32

AVP Flag N/A

MBR-Burst-Size-UL

MBR-Burst-Size-UL

Vendor ID 9

VSA Type 132009

AVP Type UINT32

AVP Flag N/A

MBR-Limit-Conform-Action-DL

MBR-Limit-Conform-Action-DL

Vendor ID 9

VSA Type 132007

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag N/A

MBR-Limit-Conform-Action-UL

MBR-Limit-Conform-Action-UL

Vendor ID 9

VSA Type 132005

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag N/A

MBR-Limit-Exceed-Action-DL

MBR-Limit-Exceed-Action-DL

Vendor ID 9

VSA Type 132008

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag N/A

MBR-Limit-Exceed-Action-UL

MBR-Limit-Exceed-Action-UL

Vendor ID 9

VSA Type 132006

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag N/A

MEID

This AVP contains the International Mobile Equipment Identity.

Vendor ID 10415

VSA Type 6110

AVP Type OCTETSTRING

AVP Flag M

MIP-Feature-Vector

Is added with flag values set by the Foreign Agent or by the AAAF owned by the same administrative domain as the Foreign Agent. The Foreign Agent should include MIP-Feature-Vector AVP within the AMR message it sends to the AAAF.

Vendor ID 10415

VSA Type 337

AVP Type UINT32

AVP Flag M

MIP-Home-Agent-Address-IETF

This AVP contains the IPv6 or IPv4 address of the MIPv6 HA.

Vendor ID 0

VSA Type 334

AVP Type ADDRESS

AVP Flag M

MIP-Home-Agent-Host

This AVP contains the identity of the assigned MIPv6 HA.

Vendor ID 0

VSA Type 348

AVP Type GROUPED

Supported group value(s):

[DESTINATION_REALM]

[DESTINATION_HOST]

AVP Flag M

MIP-Mobile-Node-Address

This AVP contains the HA assigned IPv6 or IPv4 home address of the mobile node.

Vendor ID 10415

VSA Type 333

AVP Type ADDRESS

AVP Flag M

MIP6-Agent-Info

This AVP contains necessary information to assign a HA to the MN. It can be an IP address or Fully Qualified Domain Name (FQDN).

Vendor ID 0

VSA Type 486

AVP Type GROUPED

Supported group value(s):

[MIP_HOME_AGENT_ADDRESS_IETF]

[MIP_HOME_AGENT_HOST]

[MIP6_HOME_LINK_PREFIX]

AVP Flag M

MIP6-Feature-Vector

This AVP contains the subset of the MIPv6 features supported.

Vendor ID 0

VSA Type 6062

AVP Type UINT64

AVP Flag M

MIP6-Home-Link-Prefix

This AVP contains the Mobile IPv6 home network prefix information in a network byte order.

Vendor ID 0

VSA Type 125

AVP Type OCTETSTRING

AVP Flag M

MME-Location-Information

This AVP contains the location information of the MME user.

Vendor ID 10415

VSA Type 1600

AVP Type GROUPED

Supported group value(s):

[EUTRAN_CELL_GLOBAL_IDENTITY]

[TRACKING_AREA_IDENTITY]

[GEOGRAPHICAL_INFORMATION]

[GEODETIC_INFORMATION]

[CURRENT_LOCATION_RETRIEVED]

[AGE_OF_LOCATION_INFORMATION]

AVP Flag M

MME-Name

MME-Name

Vendor ID 10415

VSA Type 2402

AVP Type DIAMURI

AVP Flag M

MME-Number-For-MT-SMS

MME-Number-For-MT-SMS

Vendor ID 10415

VSA Type 1645

AVP Type OCTETSTRING

AVP Flag N/A

MME-SM-Delivery-Outcome

MME-SM-Delivery-Outcome

Vendor ID 10415

VSA Type 3317

AVP Type GROUPED

Supported group value(s):

[SM_DELIVERY_CAUSE]

[ABSENT_USER_DIAGNOSTIC_SM]

AVP Flag M

MME-Realm

MME-Realm

Vendor ID 10415

VSA Type 2408

AVP Type DIAMURI

AVP Flag M

MME-Service-Type

MME-Service-Type

Vendor ID 10415

VSA Type 1483

AVP Type GROUPED

Supported group value(s):

[SERVICETYPEIDENTITY]

[GMLC_RESTRICTION]

[NOTIFICATION_TO_UE_USER]

AVP Flag M

MME-User-State

This AVP contains the location information of the MME user.

Vendor ID 10415

VSA Type 1497

AVP Type GROUPED

Supported group value(s):

[USER_STATE]

AVP Flag M

MO-LR

This AVP contains the classes of Mobile Originating Location Request (MO-LR) for which a subscription exists for a particular MS.

Vendor ID 10415

VSA Type 1485

AVP Type GROUPED

Supported group value(s):

[SS_CODE]

[SS_STATUS]

AVP Flag M

MONTE-Location-Type

MONTE-Location-Type

Vendor ID 10415

VSA Type 3136

AVP Type UINT32

AVP Flag M

MPS-Identifier

MPS-Identifier

Vendor ID 10415

VSA Type 528

AVP Type OCTETSTRING

AVP Flag N/A

MPS-Priority

MPS-Priority

Vendor ID 10415

VSA Type 1616

AVP Type UINT32

AVP Flag N/A

MSC-Number

MSC-Number

Vendor ID 10415

VSA Type 2403

AVP Type OCTETSTRING

AVP Flag M

MSC-SM-Delivery-Outcome

MSC-SM-Delivery-Outcome

Vendor ID 10415

VSA Type 3318

AVP Type GROUPED

Supported group value(s):

[SM_DELIVERY_CAUSE]

[ABSENT_USER_DIAGNOSTIC_SM]

AVP Flag M

MSISDN

This AVP contains an MSISDN, in international number format as described in ITU-T.

Vendor ID 0

VSA Type 701

AVP Type OCTETSTRING

AVP Flag M

MVNO-Reseller-Id

This AVP contains the Reseller ID. This attribute is included in Gx messages like CCA-I/CCA-U and RAR messages, and also included in Gy messages like CCR-I/U/T.

Vendor ID 9

VSA Type 131507

AVP Type UTF8STRING

AVP Flag N/A

MVNO-Sub-Class-Id

This AVP contains the Sub-Class-Id. This AVP is included in Gx messages like CCA-I/CCA-U and RAR messages, and also included in Gy messages like CCR-I/U/T.

Vendor ID 9

VSA Type 131508

AVP Type UTF8STRING

AVP Flag N/A

Mandatory-Capability

This AVP contains single determined mandatory capability of an S-CSCF.

Vendor ID 10415

VSA Type 604

AVP Type UINT32

AVP Flag M

Match-String

Match-String

Vendor ID 9

VSA Type 131091

AVP Type UTF8STRING

AVP Flag M

Max-Bandwidth

Max-Bandwidth

Vendor ID 9

VSA Type 131174

AVP Type UINT32

AVP Flag N/A

Max-Burst-Size

Max-Burst-Size

Vendor ID 9

VSA Type 131190

AVP Type UINT32

AVP Flag N/A

Max-Requested-Bandwidth

This AVP contains the maximum subscriber requested bandwidth.

Vendor ID 10415

VSA Type 313

AVP Type OCTETSTRING

AVP Flag M

Max-Requested-Bandwidth-DL

This AVP indicates the maximum requested bandwidth in bits per second for a downlink IP flow.

Vendor ID 10415

VSA Type 515

AVP Type UINT32

AVP Flag M

Max-Requested-Bandwidth-UL

This AVP indicates the maximum requested bandwidth in bits per second for an uplink IP flow.

Vendor ID 10415

VSA Type 516

AVP Type UINT32

AVP Flag M

Max-Wait-Time

This AVP indicates the validity of the request message. It is a 4-byte value that is encoded as milliseconds and is an offset from the Origin Timestamp.

Vendor ID 9

VSA Type 132051

AVP Type UINT32

AVP Flag N/A

Maximum-Latency

Maximum-Latency

Vendor ID 10415

VSA Type 3133

AVP Type UINT32

AVP Flag M

Maximum-Number-of-Reports

Maximum-Number-of-Reports

Vendor ID 10415

VSA Type 3128

AVP Type UINT32

AVP Flag M

Maximum-Response-Time

Maximum-Response-Time

Vendor ID 10415

VSA Type 3134

AVP Type UINT32

AVP Flag M

Maximum-Retransmission-Time

Maximum-Retransmission-Time

Vendor ID 10415

VSA Type 3330

AVP Type TIME

AVP Flag N/A

Maximum-Timeout

Maximum-Timeout

Vendor ID 9

VSA Type 131108

AVP Type UINT32

AVP Flag N/A

Maximum-UE-Availability-Time

Maximum-UE-Availability-Time

Vendor ID 10415

VSA Type 3329

AVP Type TIME

AVP Flag N/A

Media-Component-Description

This AVP contains service information for a single media component within an Application Function (AF) session.

Vendor ID 10415

VSA Type 517

AVP Type GROUPED

Supported group value(s):

[MEDIA_COMPONENT_NUMBER]

[MEDIA_SUB_COMPONENT]

[AF_APPLICATION_IDENTIFIER]

[MEDIA_TYPE]

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

[FLOW_STATUS]

[RS_BANDWIDTH]

[RR_BANDWIDTH]

AVP Flag M

Media-Component-Number

This AVP contains the ordinal number of the media component.

Vendor ID 10415

VSA Type 518

AVP Type UINT32

AVP Flag M

Media-Initiator-Flag

This AVP indicates which party has requested the session modification.

Vendor ID 10415

VSA Type 882

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Media-Initiator-Party

This AVP enumerated in IMS charging, holds the address (SIP URI or TEL URI) of the party (Public User ID or Public Service ID) who initiates the media action, like adding/removing, connecting/disconnecting the media.

Vendor ID 10415

VSA Type 1288

AVP Type UTF8STRING

AVP Flag M

Media-Sub-Component

The requested QoS and filters for the set of IP flows identified by their common Flow-Identifier.

Vendor ID 10415

VSA Type 519

AVP Type GROUPED

Supported group value(s):

[FLOW_NUMBER]

[FLOW_DESCRIPTION]

[FLOW_STATUS]

[FLOW_USAGE]

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

AVP Flag M

Media-Type

This AVP indicates the type of media in the same way as the SDP media types with the same names like AUDIO, VIDEO.

Vendor ID 10415

VSA Type 520

AVP Type ENUM

Supported enumerated value(s):

0 AUDIO

1 VIDEO

2 DATA

3 APPLICATION

4 CONTROL

5 TEXT

6 MESSAGE

AVP Flag M

Message-Body

This grouped AVP contains information about the message bodies including user-to-user data.

Vendor ID 10415

VSA Type 889

AVP Type GROUPED

Supported group value(s):

[CONTENT_TYPE]

[CONTENT_LENGTH]

[CONTENT_DISPOSITION]

[ORIGINATOR]

AVP Flag M

Meter-Exclude

Meter-Exclude

Vendor ID 9

VSA Type 131110

AVP Type ENUM

Supported enumerated value(s):

0 MMS_WAP

1 RTSP_PAUSE

2 SERVICE_IDLE

3 NETWORK_INIT_SIP

AVP Flag M

Meter-Include-Imap

Meter-Include-Imap

Vendor ID 9

VSA Type 131111

AVP Type ENUM

Supported enumerated value(s):

0 BODY_AND_HEADER

1 BODY_ONLY

2 BODY_AND_OTHER

AVP Flag M

Meter-Increment

Meter-Increment

Vendor ID 9

VSA Type 131113

AVP Type UINT32

AVP Flag N/A

Meter-Initial

Meter-Initial

Vendor ID 9

VSA Type 131114

AVP Type UINT32

AVP Flag N/A

Meter-Minimum

Meter-Minimum

Vendor ID 9

VSA Type 131115

AVP Type UINT32

AVP Flag N/A

Metering-Granularity

Metering-Granularity

Vendor ID 9

VSA Type 131112

AVP Type GROUPED

Supported group value(s):

[METER_INCREMENT]

[METER_INITIAL]

[METER_MINIMUM]

AVP Flag M

Metering-Method

This AVP indicates what parameters will be metered for offline charging.

Vendor ID 10415

VSA Type 1007

AVP Type ENUM

Supported enumerated value(s):

0 DURATION

1 VOLUME

2 DURATION_VOLUME

AVP Flag M

Min-Bandwidth-DL

This AVP contains the requested/granted data rate information, in bits per second, for the mobile in the downlink direction for the associated IP flow.

Vendor ID 5535

VSA Type 1012

AVP Type UINT32

AVP Flag M

Min-Bandwidth-UL

This AVP contains the requested/granted data rate information, in bits per second, for the mobile in the uplink direction for the associated IP flow.

Vendor ID 5535

VSA Type 1013

AVP Type UINT32

AVP Flag M

Mining

Mining

Vendor ID 9

VSA Type 131199

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Mobile-Node-Identifier

This AVP contains MN-NAI identifying the user in EPS network.

Vendor ID 0

VSA Type 89

AVP Type OCTETSTRING

AVP Flag M

Monitoring-Duration

Monitoring-Duration

Vendor ID 10415

VSA Type 3130

AVP Type TIME

AVP Flag M

Monitoring-Event-Config-Status

Monitoring-Event-Config-Status

Vendor ID 10415

VSA Type 3142

AVP Type GROUPED

Supported group value(s):

[SERVICE_REPORT]

[SCEF_REFERENCE_ID]

[SCEF_ID]

AVP Flag M

Monitoring-Event-Configuration

Monitoring-Event-Configuration

Vendor ID 10415

VSA Type 3122

AVP Type GROUPED

Supported group value(s):

[SCEF_REFERENCE_ID]

[SCEF_ID]

[MONITORING_TYPE]

[SCEF_REFERENCE_ID_FOR_DELETION]

[MAXIMUM_NUMBER_OF_REPORTS]

[MONITORING_DURATION]

[CHARGED_PARTY]

[UE_REACHABILITY_CONFIGURATION]

[LOCATION_INFORMATION_CONFIGURATION]

[NUMBER_OF_UE_PER_LOCATION_CONFIGURATION]

AVP Flag M

Monitoring-Event-Report

Monitoring-Event-Report

Vendor ID 10415

VSA Type 3123

AVP Type GROUPED

Supported group value(s):

[SCEF_REFERENCE_ID]

[SCEF_ID]

[MONITORING_TYPE]

[REACHABILITY_INFORMATION]

[EPS_LOCATION_INFORMATION]

[COMMUNICATION_FAILURE_INFORMATION]

[NUMBER_OF_UE_PER_LOCATION_REPORT]

AVP Flag M

Monitoring-Key

This AVP serves as an identifier to a usage monitoring control instance. This AVP is used for usage monitoring control purposes.

Vendor ID 10415

VSA Type 1066

AVP Type OCTETSTRING

AVP Flag N/A

Monitoring-Type

Monitoring-Type

Vendor ID 10415

VSA Type 3127

AVP Type UINT32

AVP Flag M

Multi-Round-Time-Out

Present in application-specific authorization answer messages whose Result-Code AVP is set to "DIAMETER_MULTI_ROUND_AUTH".

Vendor ID 0

VSA Type 272

AVP Type UINT32

AVP Flag N/A

Multiple-Auth-Profile

This AVP indicates Multiple Authentication requirements for a particular user.

Vendor ID 5535

VSA Type 30

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Multiple-Auth-Support

This AVP indicates the support of the Multiple Authentication at the SRNC and AGW.

Vendor ID 5535

VSA Type 29

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Multiple-Registration-Indication

This AVP indicates to the HSS whether or not the request is related to a multiple registration.

Vendor ID 10415

VSA Type 648

AVP Type ENUM

Supported enumerated value(s):

0 NOT_MULTIPLE_REGISTRATION

1 MULTIPLE_REGISTRATION

AVP Flag N/A

Multiple-Services-Credit-Control

This grouped AVP contains the AVPs related to the independent credit-control of multiple services feature.

Vendor ID 0

VSA Type 456

AVP Type GROUPED

Supported group value(s):

[REQUESTED_SERVICE_UNIT]

[GRANTED_SERVICE_UNIT]

[USED_SERVICE_UNIT]

[TARIFF_CHANGE_USAGE]

[SERVICE_IDENTIFIER]

[RATING_GROUP]

[G_S_U_POOL_REFERENCE]

[VALIDITY_TIME]

[RESULT_CODE]

[FINAL_UNIT_INDICATION]

AVP Flag M

Multiple-Services-Indicator

This AVP indicates support for independent credit-control of multiple services within the session.

Vendor ID 0

VSA Type 455

AVP Type ENUM

Supported enumerated value(s):

0 MULTIPLE_SERVICES_NOT_SUPPORTED

1 MULTIPLE_SERVICES_SUPPORTED

AVP Flag M

Mute-Notification

This AVP is used to mute the notification to the PCRF of the detected application's start/stop for the specific ADC/PCC rule from PCEF.

Vendor ID 10415

VSA Type 2809

AVP Type ENUM

Supported enumerated value(s):

0 MUTE_REQUIRED

AVP Flag N/A

NAS-Filter-Rule

This AVP contains filter rules that need to be configured on the NAS for the user.

Vendor ID 0

VSA Type 400

AVP Type IPFILTERRULE

AVP Flag M

NAS-IP-Address

This AVP contains the IP address of the NAS providing service to the user.

Vendor ID 0

VSA Type 4

AVP Type OCTETSTRING

AVP Flag M

NAS-IPv6-Address

This AVP contains the IPv6 address of the NAS providing service to the user.

Vendor ID 0

VSA Type 95

AVP Type OCTETSTRING

AVP Flag M

NAS-Identifier

This AVP contains identity of the NAS providing service to the user.

Vendor ID 0

VSA Type 32

AVP Type UTF8STRING

AVP Flag M

NAS-Port

This AVP contains the physical or virtual port number of the NAS which is authenticating the user.

Vendor ID 0

VSA Type 5

AVP Type UINT32

AVP Flag M

NAS-Port-Id

This AVP contains ASCII text identifying the port of the NAS authenticating the user.

Vendor ID 0

VSA Type 87

AVP Type UTF8STRING

AVP Flag M

NAS-Port-Type

This AVP contains the type of the port on which the NAS is authenticating the user.

Vendor ID 0

VSA Type 61

AVP Type ENUM

Supported enumerated value(s):

0 Async

1 Sync

2 ISDN_Sync

3 ISDN_Async_V120

4 ISDN_Async_V110

5 Virtual

6 PIAFS

7 HDLC_Clear_Channel

8 X25

9 X75

10 G3_Fax

12 ADSL-CAP-AsymmetricDSL_Carrierless-Amplitude-Phase-Modulation

13 ADSL-DMT-AsymmetricDSL-Discrete-Multi-Tone

14 IDSL-ISDN-Digital-Subscriber-Line

15 Ethernet

16 xDSL-Digital-Subscriber-Line-of-unknown-type

17 Cable

18 Wireless-Other

19 Wireless-IEEE802_11

20 Token-Ring_RAD802_1X

21 FDDI_RAD802_1X

22 Wireless-CDMA2000

23 Wireless-UMTS

24 Wireless-1X-EV

25 IAPP_IEEE-802_11f

AVP Flag M

NOR-Flags

The NOR-Flags AVP contains a bit mask.

Vendor ID 10415

VSA Type 1443

AVP Type UINT32

AVP Flag M

NetLoc-Access-Support

NetLoc-Access-Support

Vendor ID 10415

VSA Type 2824

AVP Type ENUM

Supported enumerated value(s):

0 NETLOC_ACCESS_NOT_SUPPORTED

AVP Flag N/A

Network-Access-Mode

This AVP indicates whether the subscriber is registered to get access to the CS, PS network, or to both networks.

Vendor ID 10415

VSA Type 1417

AVP Type ENUM

Supported enumerated value(s):

0 PACKET_AND_CIRCUIT

1 ONLY_CIRCUIT

2 ONLY_PACKET

AVP Flag M

Network-Element-Type

Network-Element-Type

Vendor ID 10415

VSA Type 1461

AVP Type ENUM

Supported enumerated value(s):

0 MME

1 SGSN

2 Serving-GW

3 PDN-GW

4 eNodeB

5 RNC

AVP Flag M

Network-Request-Support

This AVP indicates the UE and network support of the network requested bearer control mode.

Vendor ID 10415

VSA Type 1024

AVP Type ENUM

Supported enumerated value(s):

0 NETWORK_REQUEST_NOT_SUPPORTED

1 NETWORK_REQUEST_SUPPORTED

AVP Flag M

New-Dialog-Id

This AVP contains the SIP dialog identifier in the form: Call-ID=x;FTag=y;TTag=z, where x is the value of the SIP Call-ID header, y is the contents of the From header tag, and z is the contents of the To header tag. If the To header tag value is not present in the SIP message then TTag field MUST not be present in the AVP.

Vendor ID 4491

VSA Type 219

AVP Type UTF8STRING

AVP Flag M

Nexthop

Nexthop

Vendor ID 9

VSA Type 131137

AVP Type ADDRESS

AVP Flag M

Nexthop-Downlink

Nexthop-Downlink

Vendor ID 9

VSA Type 131084

AVP Type ADDRESS

AVP Flag M

Nexthop-Media

Nexthop-Media

Vendor ID 9

VSA Type 131211

AVP Type ADDRESS

AVP Flag M

Nexthop-Override

Nexthop-Override

Vendor ID 9

VSA Type 131212

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Nexthop-Uplink

Nexthop-Uplink

Vendor ID 9

VSA Type 131083

AVP Type ADDRESS

AVP Flag M

Node-Functionality

This AVP includes the functionality identifier of the node where the cause code was generated.

Vendor ID 0

VSA Type 862

AVP Type ENUM

Supported enumerated value(s):

0 S-CSCF

1 P-CSCF

2 I-CSCF

AVP Flag M

Node-Id

This AVP contains the operator configurable identifier string for the node that had generated the ACR.

Vendor ID 10415

VSA Type 2064

AVP Type UTF8STRING

AVP Flag M

Node-Type

Node-Type

Vendor ID 10415

VSA Type 3162

AVP Type UINT32

AVP Flag M

Non-IP-Data

Non-IP-Data

Vendor ID 10415

VSA Type 4315

AVP Type OCTETSTRING

AVP Flag M

Non-IP-Data-Delivery-Mechanism

Non-IP-Data-Delivery-Mechanism

Vendor ID 10415

VSA Type 1682

AVP Type ENUM

Supported enumerated value(s):

0 SGi-BASED-DATA-DELIVERY

1 SCEF-BASED-DATA-DELIVERY

AVP Flag N/A

Non-IP-PDN-Type-Indicator

Non-IP-PDN-Type-Indicator

Vendor ID 10415

VSA Type 1681

AVP Type ENUM

Supported enumerated value(s):

0 FALSE

1 TRUE

AVP Flag N/A

Nortel-Data-Reference

This AVP indicates the type of the Nortel-specific user data requested or updated in the UDR and PUR operation.

Vendor ID 0

VSA Type 301

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Notification-To-UE-User

Notification-To-UE-User

Vendor ID 10415

VSA Type 1478

AVP Type ENUM

Supported enumerated value(s):

0 NOTIFY_LOCATION_ALLOWED

1 NOTIFYANDVERIFY_ALLOWED_IF_NO_RESPONSE

2 NOTIFYANDVERIFY_NOT_ALLOWED_IF_NO_RESPONSE

3 LOCATION_NOT_ALLOWED

AVP Flag M

Number-Of-Requested-Vectors

This AVP contains the number of AVs the MME is prepared to receive.

Vendor ID 10415

VSA Type 6013

AVP Type UINT32

AVP Flag M

Number-Of-UE-Per-Location-Configuration

Number-Of-UE-Per-Location-Configuration

Vendor ID 10415

VSA Type 4306

AVP Type GROUPED

Supported group value(s):

[EPS_LOCATION_INFORMATION]

AVP Flag M

Number-Of-UE-Per-Location-Report

Number-Of-UE-Per-Location-Report

Vendor ID 10415

VSA Type 4307

AVP Type GROUPED

Supported group value(s):

[EPS_LOCATION_INFORMATION]

[UE_COUNT]

AVP Flag M

Number-Portability-Routing-Information

This AVP contains information on routing number received by S-CSCF during number portability look-up (ENUM/DNS).

Vendor ID 10415

VSA Type 2024

AVP Type UTF8STRING

AVP Flag M

OC-Feature-Vector

OC-Feature-Vector

Vendor ID 10415

VSA Type 622

AVP Type UINT64

AVP Flag M

OC-OLR

OC-OLR

Vendor ID 10415

VSA Type 623

AVP Type GROUPED

Supported group value(s):

[OC_SEQUENCE_NUMBER]

[OC_REPORT_TYPE]

[OC_REDUCTION_PERCENTAGE]

[OC_VALIDITY_DURATION]

AVP Flag M

OC-Reduction-Percentage

OC-Reduction-Percentage

Vendor ID 10415

VSA Type 627

AVP Type UINT32

AVP Flag M

OC-Report-Type

OC-Report-Type

Vendor ID 10415

VSA Type 626

AVP Type ENUM

Supported enumerated value(s):

0 HOST-REPORT

1 REALM-REPORT

AVP Flag M

OC-Sequence-Number

OC-Sequence-Number

Vendor ID 10415

VSA Type 624

AVP Type UINT64

AVP Flag M

OC-Supported-Features

OC-Supported-Features

Vendor ID 10415

VSA Type 621

AVP Type GROUPED

Supported group value(s):

[OC_FEATURE_VECTOR]

AVP Flag M

OC-Validity-Duration

OC-Validity-Duration

Vendor ID 10415

VSA Type 625

AVP Type UINT32

AVP Flag M

OMC-Id

OMC-Id

Vendor ID 10415

VSA Type 1466

AVP Type OCTETSTRING

AVP Flag M

Offline

Defines whether the offline charging interface from the TPF for the associated charging rule shall be enabled.

Vendor ID 10415

VSA Type 1008

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_OFFLINE

1 ENABLE_OFFLINE

AVP Flag M

OFR-Flags

OFR-Flags

Vendor ID 10415

VSA Type 3328

AVP Type UINT32

AVP Flag N/A

Online

Defines whether the online charging interface from the TPF for the associated charging rule shall be enabled.

Vendor ID 10415

VSA Type 1009

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_ONLINE

1 ENABLE_ONLINE

AVP Flag M

Online-Billing-Basis

Online-Billing-Basis

Vendor ID 9

VSA Type 131093

AVP Type ENUM

Supported enumerated value(s):

0 INVALID

1 EVENT

2 IP_BYTE

3 TCP_BYTE

4 DURATION

5 DURATION_OF_CONNECTION

6 DURATION_OF_TRANSACTION

AVP Flag M

Online-Charging-Flag

Online-Charging-Flag

Vendor ID 10415

VSA Type 2303

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Online-Passthrough-Quota

Online-Passthrough-Quota

Vendor ID 9

VSA Type 131104

AVP Type UINT32

AVP Flag N/A

Online-Reauthorization-Threshold

Online-Reauthorization-Threshold

Vendor ID 9

VSA Type 131105

AVP Type UINT32

AVP Flag N/A

Online-Reauthorization-Timeout

Online-Reauthorization-Timeout

Vendor ID 9

VSA Type 131106

AVP Type GROUPED

Supported group value(s):

[INITIAL_TIMEOUT]

[MAXIMUM_TIMEOUT]

AVP Flag M

Operation-Status

Operation-Status

Vendor ID 9

VSA Type 131135

AVP Type ENUM

Supported enumerated value(s):

0 OUT_OF_SERVICE

1 IN_SERVICE

AVP Flag M

Operator-Determined-Barring

This AVP contains a bit mask indicating the services of a subscriber that are barred by the operator.

Vendor ID 10415

VSA Type 1425

AVP Type UINT32

AVP Flag M

Operator-Name

Operator-Name

Vendor ID 0

VSA Type 126

AVP Type OCTETSTRING

AVP Flag N/A

Optional-Capability

This AVP contains single determined optional capability of an S-CSCF.

Vendor ID 10415

VSA Type 605

AVP Type UINT32

AVP Flag M

Origin-Host

This AVP indicates the endpoint that originated the Diameter message.

Vendor ID 0

VSA Type 264

AVP Type DIAMIDENT

AVP Flag M

Origin-Realm

This AVP indicates the realm of the originator of any Diameter message, and is present in all messages.

Vendor ID 0

VSA Type 296

AVP Type DIAMIDENT

AVP Flag M

Origin-State-Id

The Origin-State-Id AVP is a monotonically increasing value that is advanced whenever a Diameter entity restarts with loss of previous state, for example upon reboot. Origin-State-Id MAY be included in any Diameter message, including CER.

Vendor ID 0

VSA Type 278

AVP Type UINT32

AVP Flag M

Originating-IOI

This AVP holds the Inter Operator Identifier (IOI) for the originating network as generated by the S-CSCF in the home network of the originating end user.

Vendor ID 0

VSA Type 839

AVP Type UTF8STRING

AVP Flag M

Originating-Line-Info

Sent by the NAS system to convey information about the origin of the call from an SS7 system.

Vendor ID 0

VSA Type 94

AVP Type OCTETSTRING

AVP Flag N/A

Originating-Request

This AVP indicates that the request is related to an AS originating SIP request in the Location-Information-Request operation.

Vendor ID 10415

VSA Type 633

AVP Type ENUM

Supported enumerated value(s):

0 ORIGINATING

AVP Flag M

Originating-SIP-URI

Originating-SIP-URI

Vendor ID 10415

VSA Type 3326

AVP Type UTF8STRING

AVP Flag N/A

Origination-TimeStamp

This AVP indicates the time (NTP synced) when the request message is sent to AAA Server from ePDG/MME. It is an 8-byte value that is encoded as the number of milliseconds elapsed since NTP time.

Vendor ID 9

VSA Type 132050

AVP Type UINT64

AVP Flag N/A

Originator

This AVP indicates the originating party of the message body.

Vendor ID 10415

VSA Type 864

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Outgoing-Trunk-Group-ID

This AVP identifies the outgoing PSTN leg.

Vendor ID 0

VSA Type 853

AVP Type UTF8STRING

AVP Flag M

Override-Allocation-Retention-Priority

This AVP is of type grouped and is used to override the pre-configured value of ARP.

Vendor ID 9

VSA Type 132036

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_PRIORITY_LEVEL]

[OVERRIDE_PRE_EMPTION_CAPABILITY]

[OVERRIDE_PRE_EMPTION_VULNERABILITY]

AVP Flag N/A

Override-Charging-Action-Exclude-Rule

This AVP defines the rule name for which override-control will not be applied. This AVP may be included more than once if more than one rule needs to be excluded.

Vendor ID 9

VSA Type 132021

AVP Type OCTETSTRING

AVP Flag N/A

Override-Charging-Action-Name

This AVP specifies the charging action name that has to be overridden.

Vendor ID 9

VSA Type 132020

AVP Type OCTETSTRING

AVP Flag N/A

Override-Charging-Action-Parameters

This AVP is used to override pre-configured values of a charging action. If Override-Rule-Name is not present, all rules (static and predefined) configured with the specified charging action are effected. The overriding parameters will not be applied for all rules specified by Exclude-Rule AVP.

Vendor ID 9

VSA Type 132019

AVP Type GROUPED

Supported group value(s):

[EXECUTION_TIME]

[OVERRIDE_CONTROL_PENDING_QUEUE_ACTION]

[OVERRIDE_CHARGING_ACTION_NAME]

[OVERRIDE_CHARGING_ACTION_EXCLUDE_RULE]

[OVERRIDE_CHARGING_PARAMETERS]

[OVERRIDE_POLICY_PARAMETERS]

AVP Flag N/A

Override-Charging-Parameters

This AVP is used to override the charging parameters configured at P-GW for a rule (static/predefined) or for a charging action. If Override-Rule-Name AVP is present, these parameters apply only to that rule(s). Else, all rules (static and predefined) configured with the specified charging action are effected.

Vendor ID 9

VSA Type 132022

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_SERVICE_IDENTIFIER]

[OVERRIDE_RATING_GROUP]

[OVERRIDE_ONLINE]

[OVERRIDE_OFFLINE]

AVP Flag N/A

Override-Content-Filtering-State

This attribute carries information about Content Filtering status (CF state) of rules or charging-action. This AVP is used for overriding the content-filtering status of static and predefined rules. This attribute is included in the Override-Control grouped AVP.

Vendor ID 9

VSA Type 132028

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_CF

1 ENABLE_CF

AVP Flag N/A

Override-Control

This AVP is used to enable the PCRF to override charging and policy parameters for a specified set of rules or charging actions. This AVP may be present more than once if override at rule level and charging action level are to be sent in the same message.

Vendor ID 9

VSA Type 132017

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_CONTROL_NAME]

[OVERRIDE_RULE_NAME]

[OVERRIDE_CHARGING_ACTION_PARAMETERS]

AVP Flag N/A

Override-Control-Merge-Wildcard

Override-Control-Merge-Wildcard

Vendor ID 9

VSA Type 132079

AVP Type ENUM

Supported enumerated value(s):

0 TRUE

AVP Flag N/A

Override-Control-Name

This AVP specifies the name of the Override-Control. This AVP may be included more than once if multiple overrides need to be disabled.

Vendor ID 9

VSA Type 132052

AVP Type OCTETSTRING

AVP Flag N/A

Override-Control-Pending-Queue-Action

Override-Control-Pending-Queue-Action

Vendor ID 9

VSA Type 132078

AVP Type ENUM

Supported enumerated value(s):

0 FLUSH

1 RETAIN

AVP Flag N/A

Override-Guaranteed-Bitrate-DL

This AVP defines the guaranteed bit rate allowed for downlink direction. This AVP will be included only for rules on dedicated bearers.

Vendor ID 9

VSA Type 132035

AVP Type UINT32

AVP Flag N/A

Override-Guaranteed-Bitrate-UL

This AVP defines the guaranteed bit rate allowed for uplink direction. This AVP will be included only for rules on dedicated bearers.

Vendor ID 9

VSA Type 132034

AVP Type UINT32

AVP Flag N/A

Override-Max-Requested-Bandwidth-DL

This AVP defines the maximum bit rate allowed for the downlink direction.

Vendor ID 9

VSA Type 132033

AVP Type UINT32

AVP Flag N/A

Override-Max-Requested-Bandwidth-UL

This AVP defines the maximum bit rate allowed for the uplink direction.

Vendor ID 9

VSA Type 132032

AVP Type UINT32

AVP Flag N/A

Override-Nexthop-Address

This attribute indicates the override next hop address in dotted decimal format.

Vendor ID 9

VSA Type 132054

AVP Type ADDRESS

AVP Flag N/A

Override-Offline

This AVP is used to override the Offline flag configured in the charging action specified by Charging-Action-Name.

Vendor ID 9

VSA Type 132027

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_OFFLINE

1 ENABLE_OFFLINE

AVP Flag N/A

Override-Online

This AVP is used to override the Online flag configured in the charging action specified by Charging-Action-Name.

Vendor ID 9

VSA Type 132026

AVP Type ENUM

Supported enumerated value(s):

0 DISABLE_ONLINE

1 ENABLE_ONLINE

AVP Flag N/A

Override-Policy-Parameters

This AVP is used to override the Policy parameters configured at P-GW for a rule (static/predefined) or for a charging action. If Override-Rule-Name AVP is present, these parameters apply only to that rule(s). Else, all rules (static and predefined) configured with the specified charging action are effected.

Vendor ID 9

VSA Type 132029

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_QOS_INFORMATION]

[OVERRIDE_NEXTHOP_ADDRESS]

[OVERRIDE_TOS_VALUE]

[OVERRIDE_CONTENT_FILTERING_STATE]

AVP Flag N/A

Override-Pre-Emption-Capability

Override-Pre-Emption-Capability

Vendor ID 9

VSA Type 132038

AVP Type ENUM

Supported enumerated value(s):

0 PRE-EMPTION_CAPABILITY_ENABLED

1 PRE-EMPTION_CAPABILITY_DISABLED

AVP Flag N/A

Override-Pre-Emption-Vulnerability

Override-Pre-Emption-Vulnerability

Vendor ID 9

VSA Type 132039

AVP Type ENUM

Supported enumerated value(s):

0 PRE-EMPTION_VULNERABILITY_ENABLED

1 PRE-EMPTION_VULNERABILITY_DISABLED

AVP Flag N/A

Override-Priority-Level

Override-Priority-Level

Vendor ID 9

VSA Type 132037

AVP Type UINT32

AVP Flag N/A

Override-QoS-Class-Identifier

This AVP denotes the value of Override QoS Class Identifier. The allowed values for the nine standard QCIs are defined in 3GPP TS 23.203 specification.

Vendor ID 9

VSA Type 132031

AVP Type ENUM

Supported enumerated value(s):

1 TRAFFIC_CLASS_A

2 TRAFFIC_CLASS_B

3 TRAFFIC_CLASS_C

4 TRAFFIC_CLASS_D

5 TRAFFIC_CLASS_E

6 TRAFFIC_CLASS_F

7 TRAFFIC_CLASS_G

8 TRAFFIC_CLASS_H

9 TRAFFIC_CLASS_I

AVP Flag N/A

Override-QoS-Information

This AVP is used to override QoS-Information for a predefined rule or charging action. These values are ignored (if present) while applying override values to a static rule.

Vendor ID 9

VSA Type 132030

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_MAX_REQUESTED_BANDWIDTH_UL]

[OVERRIDE_MAX_REQUESTED_BANDWIDTH_DL]

[OVERRIDE_GUARANTEED_BITRATE_UL]

[OVERRIDE_GUARANTEED_BITRATE_DL]

[OVERRIDE_ALLOCATION_RETENTION_PRIORITY]

[OVERRIDE_QOS_CLASS_IDENTIFIER]

AVP Flag N/A

Override-Rating-Group

This AVP is used to override the value of Rating group configured in the charging action specified by Charging-Action-Name.

Vendor ID 9

VSA Type 132024

AVP Type UINT32

AVP Flag N/A

Override-Rule-Name

Specifies the name of the rule (predefined or static) for which override values are sent. This AVP may be included more than once if the override values apply for multiple rules. Charging-Action-Name and Exclude-Rule AVPs should not be sent and will be ignored if this AVP is present.

Vendor ID 9

VSA Type 132018

AVP Type OCTETSTRING

AVP Flag N/A

Override-Service-Identifier

This AVP is used to override the value of Service Identifier configured in the charging action.

Vendor ID 9

VSA Type 132023

AVP Type UINT32

AVP Flag N/A

Override-Tos-Direction

This AVP indicates the Override Type of Service (ToS) direction. Value 0 indicates Uplink direction, 1 denotes Downlink direction, 2 denotes both Uplink and Downlink. If AVP is not present it denotes both Uplink and Downlink.

Vendor ID 9

VSA Type 132047

AVP Type ENUM

Supported enumerated value(s):

0 UPLINK_DIRECTION

1 DOWNLINK_DIRECTION

2 BIDIRECTIONAL

AVP Flag N/A

Override-Tos-Value

This AVP is of type grouped and is used to override IP ToS value. This AVP may be included more than once if different ToS value needs to be overridden for uplink and downlink direction.

Vendor ID 9

VSA Type 132046

AVP Type GROUPED

Supported group value(s):

[OVERRIDE_TOS_DIRECTION]

[OVERRIDE_TOS_VALUE_STANDARD]

[OVERRIDE_TOS_VALUE_CUSTOM]

AVP Flag N/A

Override-Tos-Value-Custom

This AVP specifies the custom ToS value. Customized value can be a decimal from 0 to 63. This AVP will be present only when Override-Tos-Value-standard is not provided.

Vendor ID 9

VSA Type 132049

AVP Type UINT32

AVP Flag N/A

Override-Tos-Value-Standard

This AVP specifies the standard ToS value. Valid standard value can be af11 or af12 or af13 or af21 or af22 or af23 or af31 or af32 or af33 or af41 or af42 or af43 or be or ef, since these are the only standard ToS values configured through CLI as per RFC 2597. This AVP will be present only if Override-Tos-Value-Custom AVP is not present.

Vendor ID 9

VSA Type 132048

AVP Type ENUM

Supported enumerated value(s):

0 be

10 af11

12 af12

14 af13

18 af21

20 af22

22 af23

26 af31

28 af32

30 af33

34 af41

36 af42

38 af43

46 ef

AVP Flag N/A

Owner-Id

Owner-Id

Vendor ID 9

VSA Type 131102

AVP Type OCTETSTRING

AVP Flag M

Owner-Name

Owner-Name

Vendor ID 9

VSA Type 131103

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-Algorithm

PC-Digest-Algorithm

Vendor ID 4491

VSA Type 204

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-Auth-Param

PC-Digest-Auth-Param

Vendor ID 4491

VSA Type 205

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-Domain

PC-Digest-Domain

Vendor ID 4491

VSA Type 206

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-HA1

PC-Digest-HA1

Vendor ID 4491

VSA Type 207

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-QoP

PC-Digest-QoP

Vendor ID 4491

VSA Type 208

AVP Type OCTETSTRING

AVP Flag M

PC-Digest-Realm

PC-Digest-Realm

Vendor ID 4491

VSA Type 209

AVP Type OCTETSTRING

AVP Flag M

PC-SIP-Digest-Authenticate

PC-SIP-Digest-Authenticate

Vendor ID 4491

VSA Type 228

AVP Type GROUPED

Supported group value(s):

[PC_DIGEST_REALM]

[PC_DIGEST_DOMAIN]

[PC_DIGEST_ALGORITHM]

[PC_DIGEST_QOP]

[PC_DIGEST_HA1]

[PC_DIGEST_AUTH_PARAM]

AVP Flag M

PCC-Rule-Status

This AVP contains the status of a Policy and Charging Control (PCC) Rule.

Vendor ID 10415

VSA Type 1019

AVP Type ENUM

Supported enumerated value(s):

0 ACTIVE

1 INACTIVE

2 TEMPORARILY_INACTIVE

10 ACTIVE_WITHOUT_CREDIT_CONTROL

AVP Flag M

PCRF-Correlation-Id

PCRF-Correlation-Id

Vendor ID 9

VSA Type 132043

AVP Type OCTETSTRING

AVP Flag N/A

PCSCF-Restoration-Indication

This AVP indicates to the PCEF that a P-CSCF Restoration is requested.

Vendor ID 10415

VSA Type 2826

AVP Type UINT32

AVP Flag N/A

PDFID

This value matches all records from the same packet data flow.

Vendor ID 24757

VSA Type 26

AVP Type OCTETSTRING

AVP Flag M

PDG-Address

This AVP contains IP address of the PDG.

Vendor ID 10415

VSA Type 895

AVP Type ADDRESS

AVP Flag M

PDG-Charging-Id

This AVP contains the charging identifier generated by the PDG for the tunnel. Charging identifier is generated at tunnel establishment and transferred to 3GPP AAA Server.

Vendor ID 10415

VSA Type 896

AVP Type UINT32

AVP Flag M

PDN-Connection-Charging-Id

PDN-Connection-Charging-Id

Vendor ID 10415

VSA Type 2050

AVP Type UINT32

AVP Flag M

PDN-Connection-ID

This AVP contains the charging identifier to identify different records belonging to same PDN connection.

Vendor ID 10415

VSA Type 2050

AVP Type UINT32

AVP Flag M

PDN-GW-Address

IP address of the PDN GW and this IP address shall be used as the PDN GW IP address.

Vendor ID 10415

VSA Type 6041

AVP Type ADDRESS

AVP Flag M

PDN-GW-Allocation-Type

PDN-GW-Allocation-Type

Vendor ID 10415

VSA Type 1438

AVP Type ENUM

Supported enumerated value(s):

0 STATIC

1 DYNAMIC

AVP Flag M

PDN-GW-Identity

PDN-GW-Identity

Vendor ID 10415

VSA Type 6044

AVP Type GROUPED

Supported group value(s):

[PDN_GW_ADDRESS]

[PDN_GW_NAME]

AVP Flag M

PDN-GW-Name

FQDN which is used to derive the PDN GW IP address using Domain Name Service function.

Vendor ID 10415

VSA Type 6042

AVP Type UTF8STRING

AVP Flag M

PDN-Type

This AVP indicates the address type of PDN. It can be IPv4,IPV6 or both.

Vendor ID 10415

VSA Type 1456

AVP Type ENUM

Supported enumerated value(s):

0 IPv4

1 IPv6

2 IPv4v6

AVP Flag M

PDP-Address

This AVP contains IP address associated with the IP CAN bearer session (PDP context / PDN connection).

Vendor ID 10415

VSA Type 1227

AVP Type ADDRESS

AVP Flag M

PDP-Context

This AVP contains the list of PDP contexts to which a user has subscribed.

Vendor ID 10415

VSA Type 1469

AVP Type GROUPED

Supported group value(s):

[CONTEXT_IDENTIFIER]

[PDP_TYPE]

[QOS_SUBSCRIBED]

[VPLMN_DYNAMIC_ADDRESS_ALLOWED]

[SERVICE_SELECTION]

[3GPP_CHARGING_CHARACTERISTICS]

AVP Flag M

PDP-Context-Type

This AVP contains the type of a PDP Context.

Vendor ID 10415

VSA Type 1247

AVP Type ENUM

Supported enumerated value(s):

0 PRIMARY

1 SECONDARY

AVP Flag M

PDP-Session-Operation

This value is used to report in an indication of bearer termination that this indication refers to the last PDP context within a PDP session. It is only applicable for GPRS.

Vendor ID 10415

VSA Type 1015

AVP Type ENUM

Supported enumerated value(s):

0 PDP-SESSION-TERMINATION

AVP Flag M

PDP-Type

This AVP indicates the type of protocol that is used by MS.

Vendor ID 10415

VSA Type 1470

AVP Type OCTETSTRING

AVP Flag M

PGW-Type

Type of P-GW of current flow.

Vendor ID 10415

VSA Type 7002

AVP Type UINT32

AVP Flag M

PLMN-Client

PLMN-Client

Vendor ID 10415

VSA Type 1482

AVP Type ENUM

Supported enumerated value(s):

0 BROADCAST_SERVICE

1 O_AND_M_HPLMN

2 O_AND_M_VPLMN

3 ANONYMOUS_LOCATION

4 TARGET_UE_SUBSCRIBED_SERVICE

AVP Flag M

PMIP6-MAG-Address

This AVP contains IP address of MAG.

Vendor ID 10415

VSA Type 6070

AVP Type ADDRESS

AVP Flag M

PS-Append-Free-Format-Data

This AVP indicates if the information sent in the PS-Free-Format-Data AVP must be appended to the PS-free-format-data stored for the online-session.

Vendor ID 10415

VSA Type 867

AVP Type ENUM

Supported enumerated value(s):

0 APPEND

1 OVERWRITE

AVP Flag M

PS-Free-Format-Data

This AVP holds online charging session specific data.

Vendor ID 10415

VSA Type 866

AVP Type OCTETSTRING

AVP Flag M

PS-Furnish-Charging-Information

This grouped AVP contains online charging session specific information.

Vendor ID 10415

VSA Type 865

AVP Type GROUPED

Supported group value(s):

[3GPP_CHARGING_ID]

[PS_FREE_FORMAT_DATA]

[PS_APPEND_FREE_FORMAT_DATA]

AVP Flag M

PS-Information

This AVP enables the transmission of additional PS service specific information elements.

Vendor ID 10415

VSA Type 874

AVP Type GROUPED

Supported group value(s):

[3GPP_CHARGING_ID]

[3GPP_PDP_TYPE]

[PDP_ADDRESS]

[3GPP_GPRS_QOS_NEGOTIATED_PROFILE]

[3GPP_SGSN_ADDRESS]

[3GPP_GGSN_ADDRESS]

[3GPP_CG_ADDRESS]

[3GPP_IMSI_MCC_MNC]

[3GPP_GGSN_MCC_MNC]

[3GPP_NSAPI]

[CALLED_STATION_ID]

[3GPP_SESSION_STOP_INDICATOR]

[3GPP_SELECTION_MODE]

[3GPP_CHARGING_CHARACTERISTICS]

[3GPP_SGSN_MCC_MNC]

[3GPP_RAT_TYPE]

[PDP_CONTEXT_TYPE]

AVP Flag M

PSCID

This AVP contains the P-GW Session Correlation ID.

Vendor ID 10415

VSA Type 1450

AVP Type OCTETSTRING

AVP Flag M

PUA-Flags

The PUA-Flags AVP contains a bit mask.

Vendor ID 10415

VSA Type 1442

AVP Type UINT32

AVP Flag M

PUR-Flags

PUR-Flags

Vendor ID 10415

VSA Type 1635

AVP Type UINT32

AVP Flag N/A

Packet-Data-Flow-Info

This AVP is unique within the context of an IP-CAN session for the IP flow(s) given within the same Packet-Data-Flow-Info AVP.

Vendor ID 24757

VSA Type 405

AVP Type GROUPED

Supported group value(s):

[PDFID]

[PRECEDENCE]

[FLOW_DESCRIPTION]

[WIMAX_QOS_INFORMATION]

AVP Flag M

Packet-Filter-Content

This AVP contains the content of the packet filter as requested by the UE and required by the PCRF to create the PCC rules.

Vendor ID 10415

VSA Type 1059

AVP Type IPFILTERRULE

AVP Flag M

Packet-Filter-Identifier

This AVP indicates identity of the packet filter. The packet filter identifier is assigned by the PCRF and within the scope of the PCRF is unique per UE.

Vendor ID 10415

VSA Type 1060

AVP Type OCTETSTRING

AVP Flag M

Packet-Filter-Information

This AVP contains the information from a single packet filter sent from the PCEF to the PCRF.

Vendor ID 10415

VSA Type 1061

AVP Type GROUPED

Supported group value(s):

[PACKET_FILTER_IDENTIFIER]

[PRECEDENCE]

[PACKET_FILTER_CONTENT]

[TOS_TRAFFIC_CLASS]

[SECURITY_PARAMETER_INDEX]

[FLOW_LABEL]

[FLOW_DIRECTION]

AVP Flag M

Packet-Filter-Operation

This AVP indicates a UE initiated resource operation that causes a request for PCC rules.

Vendor ID 10415

VSA Type 1062

AVP Type ENUM

Supported enumerated value(s):

0 DELETION

1 ADDITION

2 MODIFICATION

AVP Flag M

Packet-Interval

This AVP indicates the packetization time in millisecond which should be used to calculate the polling or grant interval.

Vendor ID 24757

VSA Type 414

AVP Type UINT32

AVP Flag M

Packet-Size

This AVP indicates the length in bytes of the IP Packet including the IP-header in case of IP-flows where packets have a fixed size.

Vendor ID 24757

VSA Type 415

AVP Type UINT32

AVP Flag M

Paging-Group-Id

Paging-Group-Id

Vendor ID 0

VSA Type 10001

AVP Type UINT32

AVP Flag M

Path

This AVP contains a comma separated list of SIP proxies in the Path header.

Vendor ID 10415

VSA Type 640

AVP Type OCTETSTRING

AVP Flag N/A

Physical-Access-Id

This AVP contains the identity of the physical access where the user equipment is connected.

Vendor ID 0

VSA Type 313

AVP Type UTF8STRING

AVP Flag M

Policy-Map-Definition

Policy-Map-Definition

Vendor ID 9

VSA Type 131075

AVP Type GROUPED

Supported group value(s):

[POLICY_MAP_NAME]

[POLICY_MAP_TYPE]

[POLICY_MAP_REPLACE]

[POLICY_MAP_MATCH_REMOVE]

[POLICY_MAP_MATCH_INSTALL]

AVP Flag M

Policy-Map-Install

Policy-Map-Install

Vendor ID 9

VSA Type 131179

AVP Type GROUPED

Supported group value(s):

[POLICY_MAP_DEFINITION]

AVP Flag M

Policy-Map-Match

Policy-Map-Match

Vendor ID 9

VSA Type 131090

AVP Type GROUPED

Supported group value(s):

[MATCH_STRING]

[ATTRIBUTE_STRING]

AVP Flag M

Policy-Map-Match-Install

Policy-Map-Match-Install

Vendor ID 9

VSA Type 131166

AVP Type GROUPED

Supported group value(s):

[POLICY_MAP_MATCH]

AVP Flag M

Policy-Map-Match-Remove

Policy-Map-Match-Remove

Vendor ID 9

VSA Type 131167

AVP Type GROUPED

Supported group value(s):

[POLICY_MAP_MATCH]

AVP Flag M

Policy-Map-Name

Policy-Map-Name

Vendor ID 9

VSA Type 131089

AVP Type OCTETSTRING

AVP Flag M

Policy-Map-Remove

Policy-Map-Remove

Vendor ID 9

VSA Type 131180

AVP Type GROUPED

Supported group value(s):

[POLICY_MAP_NAME]

AVP Flag M

Policy-Map-Replace

Policy-Map-Replace

Vendor ID 9

VSA Type 131168

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Policy-Map-Type

Policy-Map-Type

Vendor ID 9

VSA Type 131165

AVP Type ENUM

Supported enumerated value(s):

0 URL_MAP

1 HEADER_MAP

2 METHOD_MAP

3 ATTRIBUTE_MAP

AVP Flag M

Policy-Preload-Error-Code

Policy-Preload-Error-Code

Vendor ID 9

VSA Type 131189

AVP Type ENUM

Supported enumerated value(s):

0 INCONSISTENT_PRELOAD_DATA

1 MANDATORY_AVP_MISSING

2 FAILURE_TO_ENFORCE

3 WRONG_ORDER

4 CONFLICT_WITH_STATIC_CONFIG

AVP Flag M

Policy-Preload-Object-Type

Policy-Preload-Object-Type

Vendor ID 9

VSA Type 131121

AVP Type ENUM

Supported enumerated value(s):

0 POLICY_MAP

1 BILLING_POLICY

2 CONTENT

3 SERVICE

4 BILLING_PLAN

5 DOMAIN_GROUP

6 HEADER_INSERT

7 HEADER_GROUP

8 QOS_PROFILE

AVP Flag M

Policy-Preload-Req-Type

Policy-Preload-Req-Type

Vendor ID 9

VSA Type 131120

AVP Type ENUM

Supported enumerated value(s):

0 POLICY_PRELOAD_REQ

1 POLICY_PRELOAD_RESP

2 POLICY_PRELOAD_PUSH

3 POLICY_PRELOAD_PUSH_ACK

AVP Flag M

Port-Limit

Sets the maximum number of ports the NAS provides to the user.

Vendor ID 0

VSA Type 62

AVP Type UINT32

AVP Flag M

Port-Number

Port-Number

Vendor ID 13091

VSA Type 455

AVP Type UINT32

AVP Flag N/A

PRA-Install

Used to provision a list of new or updated Presence Reporting Area(s) for an IP-CAN session

Vendor ID 10415

VSA Type 2845

AVP Type GROUPED

AVP Flag N/A

PRA-Remove

Used to stop the reporting of a list of Presence Reporting Area(s) for an IP-CAN session.

Vendor ID 10415

VSA Type 2846

AVP Type GROUPED

AVP Flag N/A

Pre-emption-Capability

This AVP indicates whether a service data flow can get resources that were already assigned to another service data flow with a lower priority level.

Vendor ID 10415

VSA Type 1047

AVP Type ENUM

Supported enumerated value(s):

0 PRE-EMPTION_CAPABILITY_ENABLED

1 PRE-EMPTION_CAPABILITY_DISABLED

AVP Flag M

Pre-emption-Vulnerability

This AVP indicates whether a service data flow can loose the resources assigned to it in order to admit a service data flow with higher priority level.

Vendor ID 10415

VSA Type 1048

AVP Type ENUM

Supported enumerated value(s):

0 PRE-EMPTION_VULNERABILITY_ENABLED

1 PRE-EMPTION_VULNERABILITY_DISABLED

AVP Flag M

Precedence

Defines the precedence of a charging rule in case of overlapping charging rules.

Vendor ID 10415

VSA Type 1010

AVP Type UINT32

AVP Flag M

Preload-Completion-Status

Preload-Completion-Status

Vendor ID 9

VSA Type 131122

AVP Type ENUM

Supported enumerated value(s):

0 ONGOING

1 COMPLETE

AVP Flag M

Presence-Reporting-Area-Elements-List

This AVP contains, for a UE-dedicated presence area, the elements of the Presence Reporting Area. For a core network pre-configured presence reporting area, the element list shall not be present. When the presence area is UE-dedicated, the PCRF may acquire the presence reporting area information from the SPR.

Vendor ID 10415

VSA Type 2820

AVP Type OCTETSTRING

AVP Flag N/A

Presence-Reporting-Area-Identifier

This AVP defines a unique identifier for presence reporting area or presence reporting area set.

Vendor ID 10415

VSA Type 2821

AVP Type OCTETSTRING

AVP Flag N/A

Presence-Reporting-Area-Information

This AVP contains the information which describes a Presence Reporting Area.

Vendor ID 10415

VSA Type 2822

AVP Type GROUPED

Supported group value(s):

[PRESENCE_REPORTING_AREA_IDENTIFIER]

[PRESENCE_REPORTING_AREA_STATUS]

[PRESENCE_REPORTING_AREA_ELEMENTS_LIST]

AVP Flag N/A

Presence-Reporting-Area-Status

This AVP indicates the status of UE for presence reporting area or the status of the presence reporting area.

Vendor ID 10415

VSA Type 2823

AVP Type UINT32

AVP Flag N/A

Primary-Charging-Collection-Function-Name

Defines the address of the primary offline charging system for the bearer.

Vendor ID 10415

VSA Type 621

AVP Type DIAMURI

AVP Flag M

Primary-Event-Charging-Function-Name

This AVP specifies the address or name of the primary online charging system server for the bearer.

Vendor ID 10415

VSA Type 619

AVP Type DIAMURI

AVP Flag M

Priority

Priority

Vendor ID 9

VSA Type 131201

AVP Type UINT32

AVP Flag N/A

Priority-Level

This AVP is used to decide whether a bearer establishment or modification request can be accepted or needs to be rejected in case of resource limitations.

Vendor ID 10415

VSA Type 1046

AVP Type UINT32

AVP Flag M

Priviledged-Sender-Indication

Priviledged-Sender-Indication

Vendor ID 10415

VSA Type 652

AVP Type ENUM

Supported enumerated value(s):

0 NOT_PRIVILEDGED_SENDER

1 PRIVILEDGED_SENDER

AVP Flag N/A

Product-Name

This AVP contains the vendor assigned name for the product.

Vendor ID 0

VSA Type 269

AVP Type UTF8STRING

AVP Flag N/A

Protocol-ID

Protocol-ID

Vendor ID 9

VSA Type 131148

AVP Type UINT32

AVP Flag N/A

Proxy-Host

This AVP contains the identity of the host that added the Proxy-Info AVP.

Vendor ID 0

VSA Type 280

AVP Type DIAMIDENT

AVP Flag M

Proxy-Info

The Proxy-Info AVP allows stateless agents to add local state to a Diameter request.

Vendor ID 0

VSA Type 284

AVP Type GROUPED

Supported group value(s):

[PROXY_HOST]

[PROXY_STATE]

AVP Flag M

Proxy-State

The Proxy-State AVP contains state local information, and MUST be treated as opaque data.

Vendor ID 0

VSA Type 33

AVP Type OCTETSTRING

AVP Flag M

Pseudonym-Indicator

This ABP indicates whether or not a pseudonym is requested.

Vendor ID 10415

VSA Type 2519

AVP Type ENUM

Supported enumerated value(s):

0 PSEUDONYM_NOT_REQUESTED

1 PSEUDONYM_REQUESTED

AVP Flag M

Public-Identity

This AVP contains the public identity of a user in the IMS.

Vendor ID 10415

VSA Type 601

AVP Type UTF8STRING

AVP Flag M

QoS-Capability

QoS-Capability

Vendor ID 0

VSA Type 6063

AVP Type GROUPED

Supported group value(s):

[QOS_PROFILE_TEMPLATE]

[VENDOR_SPECIFIC_QOS_PROFILE_TEMPLATE]

AVP Flag M

QoS-Class

This AVP contains the authorized traffic class for the PDP context.

Vendor ID 10415

VSA Type 1017

AVP Type ENUM

Supported enumerated value(s):

0 Traffic_Class_A

1 Traffic_Class_B

2 Traffic_Class_C

3 Traffic_Class_D

4 Traffic_Class_E

5 Traffic_Class_F

AVP Flag M

QoS-Class-Identifier

Identifies a set of IP-CAN specific QoS parameters that define the authorized QoS.

Vendor ID 10415

VSA Type 1028

AVP Type ENUM

Supported enumerated value(s):

1 TRAFFIC_CLASS_A

2 TRAFFIC_CLASS_B

3 TRAFFIC_CLASS_C

4 TRAFFIC_CLASS_D

5 TRAFFIC_CLASS_E

6 TRAFFIC_CLASS_F

7 TRAFFIC_CLASS_G

8 TRAFFIC_CLASS_H

9 TRAFFIC_CLASS_I

AVP Flag M

QoS-Group-Rule-Definition

QoS-Group-Rule-Definition

Vendor ID 9

VSA Type 132003

AVP Type GROUPED

Supported group value(s):

[QOS_GROUP_RULE_NAME]

[QOS_INFORMATION]

[FLOW_STATUS]

[REDIRECT_SERVER]

[MONITORING_KEY]

[PRECEDENCE]

AVP Flag N/A

QoS-Group-Rule-Install

QoS-Group-Rule-Install

Vendor ID 9

VSA Type 132001

AVP Type GROUPED

Supported group value(s):

[QOS_GROUP_RULE_DEFINITION]

AVP Flag N/A

QoS-Group-Rule-Name

QoS-Group-Rule-Name

Vendor ID 9

VSA Type 132004

AVP Type OCTETSTRING

AVP Flag N/A

QoS-Group-Rule-Remove

QoS-Group-Rule-Remove

Vendor ID 9

VSA Type 132002

AVP Type GROUPED

Supported group value(s):

[QOS_GROUP_RULE_NAME]

AVP Flag N/A

QoS-Information

This AVP contains the QoS information for an IP-CAN bearer or PCC rule.

Vendor ID 10415

VSA Type 1016

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS_IDENTIFIER]

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

[EXTENDED-MAX-REQUESTED-BW-UL]

[EXTENDED-MAX-REQUESTED-BW-DL]

[GUARANTEED_BITRATE_UL]

[GUARANTEED_BITRATE_DL]

[EXTENDED-GBR-UL]

[EXTENDED-GBR-DL]

[BEARER_IDENTIFIER]

[ALLOCATION_RETENTION_PRIORITY]

[APN_AGGREGATE_MAX_BITRATE_UL]

[APN_AGGREGATE_MAX_BITRATE_DL]

[EXTENDED-APN-AMBR-UL]

[EXTENDED-APN-AMBR-DL]

AVP Flag M

QoS-Level

QoS-Level

Vendor ID 9

VSA Type 132011

AVP Type ENUM

Supported enumerated value(s):

1 SUBSCRIBER_LEVEL

AVP Flag N/A

QoS-Negotiation

This AVP indicates QoS negotiation capability. I.e., if the PCRF is allowed to negotiate the QoS.

Vendor ID 10415

VSA Type 1029

AVP Type ENUM

Supported enumerated value(s):

0 NO_QoS_NEGOTIATION

1 QoS_NEGOTIATION_SUPPORTED

AVP Flag M

QoS-Profile-Template

This AVP contains the list of supported Quality of Service profile templates.

Vendor ID 0

VSA Type 6067

AVP Type UINT32

AVP Flag M

QoS-Rate-Limit

QoS-Rate-Limit

Vendor ID 9

VSA Type 131173

AVP Type GROUPED

Supported group value(s):

[MAX_BANDWIDTH]

[MAX_BURST_SIZE]

[RATE_LIMIT_CONFORM_ACTION]

[RATE_LIMIT_EXCEED_ACTION]

AVP Flag M

QoS-Rate-Limit-DL

QoS-Rate-Limit-DL

Vendor ID 9

VSA Type 131172

AVP Type GROUPED

Supported group value(s):

[QOS_RATE_LIMIT]

AVP Flag M

QoS-Rate-Limit-UL

QoS-Rate-Limit-UL

Vendor ID 9

VSA Type 131171

AVP Type GROUPED

Supported group value(s):

[QOS_RATE_LIMIT]

AVP Flag M

QoS-Resource-Request

Resource requested by UE to PCRF.

Vendor ID 10415

VSA Type 6106

AVP Type GROUPED

Supported group value(s):

[QOS_RESOURCE_IDENTIFIER]

[QOS_RESOURCE_OPERATION]

[TFT_PACKET_FILTER_INFORMATION]

[QOS_INFORMATION]

AVP Flag M

QoS-Resources

This AVP provides the description of the Quality of Service resources for policing traffic flows.

Vendor ID 0

VSA Type 6065

AVP Type GROUPED

Supported group value(s):

[EXTENDED_QOS_FILTER_RULE]

AVP Flag M

QoS-Rule-Base-Name

This AVP indicates the name of a predefined group of charging rules residing at the TPF.

Vendor ID 10415

VSA Type 1074

AVP Type UTF8STRING

AVP Flag M

QoS-Rule-Definition

This AVP contains the QoS rule for a service flow sent by PCRF to the BBERF.

Vendor ID 10415

VSA Type 1053

AVP Type GROUPED

Supported group value(s):

[QOS_RULE_NAME]

[FLOW_INFORMATION]

[FLOW_DESCRIPTION]

[QOS_INFORMATION]

[PRECEDENCE]

AVP Flag M

QoS-Rule-Install

This AVP contains the QoS rules that need to be installed.

Vendor ID 10415

VSA Type 1051

AVP Type GROUPED

Supported group value(s):

[QOS_RULE_DEFINITION]

[QOS_RULE_NAME]

[QOS_RULE_BASE_NAME]

[TUNNEL_INFORMATION]

[ACCESS_NETWORK_CHARGING_IDENTIFIER_VALUE]

[RESOURCE_ALLOCATION_NOTIFICATION]

[RULE_ACTIVATION_TIME]

[RULE_DEACTIVATION_TIME]

AVP Flag M

QoS-Rule-Name

For QoS rules provided by the CRF it uniquely identifies a charging rule for a bearer.

Vendor ID 10415

VSA Type 1054

AVP Type OCTETSTRING

AVP Flag M

QoS-Rule-Remove

Used to remove QoS rules from a Gateway Control Session.

Vendor ID 10415

VSA Type 1052

AVP Type GROUPED

Supported group value(s):

[QOS_RULE_NAME]

[QOS_RULE_BASE_NAME]

AVP Flag M

QoS-Rule-Report

Report the status of QoS rules.

Vendor ID 10415

VSA Type 1055

AVP Type GROUPED

Supported group value(s):

[QOS_RULE_NAME]

[QOS_RULE_BASE_NAME]

[PCC_RULE_STATUS]

[RULE_FAILURE_CODE]

AVP Flag M

QoS-Subscribed

This AVP indicates the quality of service subscribed for a certain service.

Vendor ID 10415

VSA Type 1404

AVP Type OCTETSTRING

AVP Flag M

QoS-Upgrade

This AVP indicates whether SGSN supports upgrade of QoS by GGSN.

Vendor ID 10415

VSA Type 1030

AVP Type ENUM

Supported enumerated value(s):

0 QoS_UPGRADE_NOT_SUPPORTED

1 QoS_UPGRADE_SUPPORTED

AVP Flag M

RACS-Contact-Point

Identifies the RACS element to which resource reservation requests should be sent.

Vendor ID 0

VSA Type 351

AVP Type DIAMIDENT

AVP Flag M

RAI

This AVP contains the Routing Area Identity of the SGSN where the UE is registered.

Vendor ID 10415

VSA Type 909

AVP Type UTF8STRING

AVP Flag M

RAN-End-Timestamp

It holds the time in UTC format of the volume container reported was collected, the end time of the reported usage.

Vendor ID 10415

VSA Type 1301

AVP Type TIME

AVP Flag N/A

RAN-Secondary-RAT-Usage-Report

It contains the volume count as reported by the RAN for the secondary RAT including the time of the report.

Vendor ID 10415

VSA Type 1302

AVP Type GROUPED

Supported group value(s):

[SECONDARY_RAT_TYPE]

[RAN_START_TIMESTAMP]

[RAN_END_TIMESTAMP]

[ACCOUNTING_INPUT_OCTETS]

[ACCOUNTING_OUTPUT_OCTETS]

AVP Flag N/A

RAN-Start-Timestamp

It holds the time in UTC format of the volume container reported was collected, the start time of the reported usage.

Vendor ID 10415

VSA Type 1303

AVP Type TIME

AVP Flag N/A

RAN-NAS-Release-Cause

RAN-NAS-Release-Cause

Vendor ID 10415

VSA Type 2819

AVP Type OCTETSTRING

AVP Flag N/A

RANAP-Cause

RANAP-Cause

Vendor ID 10415

VSA Type 4303

AVP Type UINT32

AVP Flag M

RAND

This AVP contains the RAND (EAP Authentication Vector).

Vendor ID 10415

VSA Type 1447

AVP Type OCTETSTRING

AVP Flag M

RAR-Flags

This AVP contains the bit 1 set to indicate that the AAA server requests the execution of HSS-based P-CSCF restoration procedures for WLAN.

Vendor ID 10415

VSA Type 1522

AVP Type UINT32

AVP Flag N/A

RAS-Id

This AVP contains the RAS identifier.

Vendor ID 0

VSA Type 10000

AVP Type UINT32

AVP Flag M

RAT-Frequency-Selection-Priority

This AVP contains the RAT frequency selection priority.

Vendor ID 10415

VSA Type 1440

AVP Type UINT32

AVP Flag M

RAT-Type

This AVP contains value of the Radio Access Technology which is currently serving the UE.

Vendor ID 10415

VSA Type 1032

AVP Type ENUM

Supported enumerated value(s):

0 WLAN

1 VIRTUAL

1000 UTRAN

1001 GERAN

1002 GAN

1003 HSPA_EVOLUTION

1004 EUTRAN

1005 NB-IoT

2000 CDMA2000_1X

2001 HRPD

2002 UMB

2003 EHRPD

AVP Flag M

RR-Bandwidth

This AVP indicates the maximum required bandwidth in bits per second for RTCP receiver reports within the session component.

Vendor ID 10415

VSA Type 521

AVP Type UINT32

AVP Flag M

RS-Bandwidth

This AVP indicates the maximum required bandwidth in bits per second for RTCP sender reports within the session component.

Vendor ID 10415

VSA Type 522

AVP Type UINT32

AVP Flag M

Radius-Attribute-Type

Radius-Attribute-Type

Vendor ID 9

VSA Type 131224

AVP Type UINT32

AVP Flag N/A

Radius-Vsa-Subattribute-Type

Radius-Vsa-Subattribute-Type

Vendor ID 9

VSA Type 131226

AVP Type UINT32

AVP Flag N/A

Radius-Vsa-Vendor-Id

Radius-Vsa-Vendor-Id

Vendor ID 9

VSA Type 131225

AVP Type UINT32

AVP Flag N/A

Rate-Limit-Action

Rate-Limit-Action

Vendor ID 9

VSA Type 131177

AVP Type ENUM

Supported enumerated value(s):

0 FORWARD

1 DROP

2 MARK_DSCP

AVP Flag M

Rate-Limit-Conform-Action

Rate-Limit-Conform-Action

Vendor ID 9

VSA Type 131175

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag M

Rate-Limit-Exceed-Action

Rate-Limit-Exceed-Action

Vendor ID 9

VSA Type 131176

AVP Type GROUPED

Supported group value(s):

[RATE_LIMIT_ACTION]

[DSCP]

AVP Flag M

Rating-Group

Identifier of a rating group for service. It contains the charging key (defined in 3GPP TS 23.125). Each quota allocated to a Diameter CC session has a unique Rating Group value as specified in RFC 4006.

Vendor ID 0

VSA Type 432

AVP Type UINT32

AVP Flag M

Re-Auth-Request-Type

Specifies the re-authorization request type and included in application-specific authorization answers to inform the client of the action expected upon expiration of the Authorization-Lifetime.

Vendor ID 0

VSA Type 285

AVP Type ENUM

Supported enumerated value(s):

0 AUTHORIZE_ONLY

1 AUTHORIZE_AUTHENTICATE

AVP Flag M

Re-Synchronization-Info

This AVP contains the concatenation of RAND and AUTS.

Vendor ID 10415

VSA Type 6014

AVP Type UINT32

AVP Flag M

Reachability-Information

Reachability-Information

Vendor ID 10415

VSA Type 3140

AVP Type UINT32

AVP Flag M

Reachability-Type

Reachability-Type

Vendor ID 10415

VSA Type 3132

AVP Type UINT32

AVP Flag M

Real-Time-Tariff-Information

Real-Time-Tariff-Information

Vendor ID 10415

VSA Type 2305

AVP Type GROUPED

Supported group value(s):

[TARIFF_XML]

AVP Flag M

Reason-Code

This AVP contains the reason for the network initiated de-registration.

Vendor ID 10415

VSA Type 616

AVP Type ENUM

Supported enumerated value(s):

0 PERMANENT_TERMINATION

1 NEW_SERVER_ASSIGNED

2 SERVER_CHANGE

3 REMOVE_S-CSCF

AVP Flag M

Reason-Info

This AVP contains textual information to inform the user about the reason for a de-registration.

Vendor ID 10415

VSA Type 617

AVP Type UTF8STRING

AVP Flag M

Record-Route

This AVP contains a comma separated list of Record Route header(s).

Vendor ID 10415

VSA Type 646

AVP Type OCTETSTRING

AVP Flag N/A

Redirect-Address-Type

This AVP contains the address type of the address given in the Redirect-Server-Address AVP.

Vendor ID 0

VSA Type 433

AVP Type ENUM

Supported enumerated value(s):

0 IPv4-Address

1 IPv6-Address

2 URL

3 SIP-URI

AVP Flag M

Redirect-Host

This AVP contains the alternate routing details to which the request need to be redirected to.

Vendor ID 0

VSA Type 292

AVP Type OCTETSTRING

AVP Flag M

Redirect-Host-Usage

This AVP contains information on how the routing entry resulting from the Redirect-Host is to be used.

Vendor ID 0

VSA Type 261

AVP Type ENUM

Supported enumerated value(s):

0 DONT_CACHE

1 ALL_SESSION

2 ALL_REALM

3 REALM_AND_APPLICATION

4 ALL_APPLICATION

5 ALL_HOST

6 ALL_USER

AVP Flag M

Redirect-Information

This AVP contains the address information of the redirect server to which the detected application traffic is sent.

Vendor ID 10415

VSA Type 1085

AVP Type GROUPED

Supported group value(s):

[REDIRECT_SUPPORT]

[REDIRECT_ADDRESS_TYPE]

[REDIRECT_SERVER_ADDRESS]

AVP Flag N/A

Redirect-Max-Cache-Time

This AVP indicates the maximum duration in seconds the peer and route table entries, created as a result of the Redirect-Host, will be cached.

Vendor ID 0

VSA Type 262

AVP Type UINT32

AVP Flag M

Redirect-Server

This AVP contains the address information of the redirect server (for example,, HTTP redirect server, SIP Server) with which the end user is to be connected when redirected as account cannot cover the service cost.

Vendor ID 0

VSA Type 434

AVP Type GROUPED

Supported group value(s):

[REDIRECT_ADDRESS_TYPE]

[REDIRECT_SERVER_ADDRESS]

AVP Flag M

Redirect-Server-Address

This AVP contains address of the redirect server.

Vendor ID 0

VSA Type 435

AVP Type UTF8STRING

AVP Flag M

Redirect-Support

This AVP indicates whether redirection is disabled or enabled for an ADC rule. If the redirection is enabled, the Traffic Detection Function (TDF) will redirect the detected application's traffic to the redirect address provided through Redirect-Information AVP.

Vendor ID 10415

VSA Type 1086

AVP Type ENUM

Supported enumerated value(s):

0 REDIRECTION_DISABLED

1 REDIRECTION_ENABLED

AVP Flag N/A

Refund-Policy

Refund-Policy

Vendor ID 9

VSA Type 131109

AVP Type OCTETSTRING

AVP Flag M

Regional-Subscription-Zone-Code

Regional-Subscription-Zone-Code. Up to 10 zone codes are used to define the tracking areas into which the subscriber is allowed or not allowed to roam.

Vendor ID 10415

VSA Type 1446

AVP Type OCTETSTRING

AVP Flag M

Relative-URL

Relative-URL

Vendor ID 9

VSA Type 131198

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Replicate-Session

Replicate-Session

Vendor ID 9

VSA Type 131132

AVP Type UINT32

AVP Flag N/A

Replicate-Session-Delay

Replicate-Session-Delay

Vendor ID 9

VSA Type 131133

AVP Type UINT32

AVP Flag N/A

Reply-Message

This AVP contains text that may be displayed to the user.

Vendor ID 0

VSA Type 18

AVP Type UTF8STRING

AVP Flag M

Reporting-Level

Defines on what level the TPF reports the usage for the related charging rule.

Vendor ID 10415

VSA Type 1011

AVP Type ENUM

Supported enumerated value(s):

0 SERVICE_IDENTIFIER_LEVEL

1 RATING_GROUP_LEVEL

2 SPONSORED_CONNECTIVITY_LEVEL

AVP Flag M

Requested-Action

The action requested when the CC_Request_Type is EVENT_REQUEST.

Vendor ID 0

VSA Type 436

AVP Type ENUM

Supported enumerated value(s):

0 DIRECT_DEBITING

1 REFUND_ACCOUNT

2 CHECK_BALANCE

3 PRICE_ENQUIRY

4 LOCATION_UPDATE

AVP Flag M

Requested-Domain

This AVP indicates the access domain for which certain data are requested.

Vendor ID 0

VSA Type 706

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Requested-EUTRAN-Authentication-Info

This AVP contains the EU Tran authentication information.

Vendor ID 10415

VSA Type 6010

AVP Type GROUPED

Supported group value(s):

[NUMBER_OF_REQUESTED_VECTORS]

[IMMEDIATE_RESPONSE_PREFERRED]

[RE_SYNCHRONIZATION_INFO]

AVP Flag M

Requested-GERAN-Authentication-Info

This AVP contains GE RAN authentication information.

Vendor ID 10415

VSA Type 6012

AVP Type GROUPED

Supported group value(s):

[NUMBER_OF_REQUESTED_VECTORS]

[IMMEDIATE_RESPONSE_PREFERRED]

[RE_SYNCHRONIZATION_INFO]

AVP Flag M

Requested-Information

This AVP provides the list of items requested by the AF.

Vendor ID 13019

VSA Type 353

AVP Type ENUM

Supported enumerated value(s):

0 NASS-USER-ID

1 LOCATION-INFORMATION

2 RACS-CONTACT-POINT

3 ACCESS-NETWORK-TYPE

4 TERMINAL-TYPE

5 LOGICAL-ACCESS-ID

6 PHYSICAL-ACCESS-ID

7 ACCESS-NETWORK-TYPE-RESERVED

8 INITIAL-GATE-SETTING-RESERVED

9 QOS-PROFILE-RESERVED

10 IP-CONNECTIVITY-STATUS-RESERVED

AVP Flag M

Requested-Party-Address

In IMS it holds the address (SIP URI or TEL URI) of the party (Public User ID or Public Service ID) to whom the SIP transaction was originally posted.

Vendor ID 10415

VSA Type 1251

AVP Type UTF8STRING

AVP Flag M

Requested-QoS

It is used within the Flow-Info AVP to indicate the QoS requested by the UE for a particular IP flow in the high rate packet data radio access network.

Vendor ID 5535

VSA Type 1010

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS]

[MIN_BANDWIDTH_UL]

[MIN_BANDWIDTH_DL]

AVP Flag M

Requested-Retransmission-Time

Requested-Retransmission-Time

Vendor ID 10415

VSA Type 3331

AVP Type TIME

AVP Flag N/A

Requested-Service-Unit

Amount of requested units specified by the Diameter credit-control client.

Vendor ID 0

VSA Type 437

AVP Type GROUPED

Supported group value(s):

[TARIFF_TIME_CHANGE]

[TARIFF_CHANGE_USAGE]

[CC_TIME]

[CC_MONEY]

[CC_TOTAL_OCTETS]

[CC_INPUT_OCTETS]

[CC_OUTPUT_OCTETS]

[CC_SERVICE_SPECIFIC_UNITS]

AVP Flag M

Requested-UTRAN-Authentication-Info

This AVP contains the UTRAN authentication information.

Vendor ID 10415

VSA Type 6011

AVP Type GROUPED

Supported group value(s):

[NUMBER_OF_REQUESTED_VECTORS]

[IMMEDIATE_RESPONSE_PREFERRED]

[RE_SYNCHRONIZATION_INFO]

AVP Flag M

Requested-UTRAN-GERAN-Authentication-Info

This AVP contains the information related to the authentication requests for UTRAN or GERAN.

Vendor ID 10415

VSA Type 1409

AVP Type GROUPED

Supported group value(s):

[NUMBER_OF_REQUESTED_VECTORS]

[IMMEDIATE_RESPONSE_PREFERRED]

[RE_SYNCHRONIZATION_INFO]

AVP Flag M

Requesting-Node-Type

Requesting-Node-Type

Vendor ID 10415

VSA Type 1455

AVP Type ENUM

Supported enumerated value(s):

0 MME

1 SGSN

2 MME_SGSN

AVP Flag M

Required-Access-Info

Required-Access-Info

Vendor ID 10415

VSA Type 536

AVP Type ENUM

Supported enumerated value(s):

0 USER_LOCATION

1 MS_TIME_ZONE

AVP Flag N/A

Required-MBMS-Bearer-Capabilities

This AVP contains the minimum bearer capabilities the UE needs to support.

Vendor ID 10415

VSA Type 901

AVP Type UTF8STRING

AVP Flag M

Reservation-Class

This AVP contains an integer used as an index pointing to the traffic characteristic of the flow.

Vendor ID 13019

VSA Type 456

AVP Type UINT32

AVP Flag N/A

Reservation-Priority

Used by the PCRF to guarantee service for an application session of a higher relative priority.

Vendor ID 13019

VSA Type 458

AVP Type ENUM

Supported enumerated value(s):

0 DEFAULT

1 PRIORITY-ONE

2 PRIORITY-TWO

3 PRIORITY-THREE

4 PRIORITY-FOUR

5 PRIORITY-FIVE

6 PRIORITY-SIX

7 PRIORITY-SEVEN

AVP Flag N/A

Resource-Allocation-Notification

Defines whether the rules included within the Charging-Rule-Install/QoS-Rule-Install AVP need be notified.

Vendor ID 10415

VSA Type 1063

AVP Type ENUM

Supported enumerated value(s):

0 ENABLE_NOTIFICATION

AVP Flag M

Response-Time

Response-Time

Vendor ID 10415

VSA Type 2509

AVP Type ENUM

Supported enumerated value(s):

0 LOW_DELAY

1 DELAY_TOLERANT

AVP Flag M

Restoration-Info

This AVP contains the information related to a specific registration.

Vendor ID 10415

VSA Type 649

AVP Type GROUPED

Supported group value(s):

[PATH]

[CONTACT]

[SUBSCRIPTION_INFO]

AVP Flag N/A

Restoration-Priority

This attribute specifies the relative priority of the user when restoring PDN connections affected by an S-GW or P-GW failure/restart.

Vendor ID 10415

VSA Type 1663

AVP Type UINT32

AVP Flag N/A

Restriction-Filter-Rule

Provides filter rules for services that are to remain accessible even if there are no more service units granted.

Vendor ID 0

VSA Type 438

AVP Type IPFILTERRULE

AVP Flag M

Result-Code

This AVP indicates whether a particular request was completed successfully or whether an error occurred.

Vendor ID 0

VSA Type 268

AVP Type ENUM

Supported enumerated value(s):

1001 DIAMETER_MULTI_ROUND_AUTH

2001 DIAMETER_SUCCESS

2002 DIAMETER_LIMITED_SUCCESS

3001 DIAMETER_COMMAND_UNSUPPORTED

3002 DIAMETER_UNABLE_TO_DELIVER

3003 DIAMETER_REALM_NOT_SERVED

3004 DIAMETER_TOO_BUSY

3005 DIAMETER_LOOP_DETECTED

3006 DIAMETER_REDIRECT_INDICATION

3007 DIAMETER_APPLICATION_UNSUPPORTED

3008 DIAMETER_INVALID_HDR_BITS

3009 DIAMETER_INVALID_AVP_BITS

3010 DIAMETER_UNKNOWN_PEER

4001 DIAMETER_AUTHENTICATION_REJECTED

4002 DIAMETER_OUT_OF_SPACE

4003 ELECTION_LOST

4010 DIAMETER_END_USER_SERVICE_DENIED

4011 DIAMETER_CREDIT_CONTROL_NOT_APPLICABLE

4012 DIAMETER_CREDIT_LIMIT_REACHED

4212 DIAMETER_BALANCE_IS_ZERO

5001 DIAMETER_AVP_UNSUPPORTED

5002 DIAMETER_UNKNOWN_SESSION_ID

5003 DIAMETER_AUTHORIZATION_REJECTED

5004 DIAMETER_INVALID_AVP_VALUE

5005 DIAMETER_MISSING_AVP

5006 DIAMETER_RESOURCES_EXCEEDED

5007 DIAMETER_CONTRADICTING_AVPS

5008 DIAMETER_AVP_NOT_ALLOWED

5009 DIAMETER_AVP_OCCURS_TOO_MANY_TIMES

5010 DIAMETER_NO_COMMON_APPLICATION

5011 DIAMETER_UNSUPPORTED_VERSION

5012 DIAMETER_UNABLE_TO_COMPLY

5013 DIAMETER_INVALID_BIT_IN_HEADER

5014 DIAMETER_INVALID_AVP_LENGTH

5015 DIAMETER_INVALID_MESSAGE_LENGTH

5016 DIAMETER_INVALID_AVP_BIT_COMBO

5017 DIAMETER_NO_COMMON_SECURITY

5030 DIAMETER_USER_UNKNOWN

5031 DIAMETER_RATING_FAILED

AVP Flag M

Revalidation-Time

This AVP contains the value indicating the NTP time before which the PCEF will have to re-request PCC rules.

Vendor ID 10415

VSA Type 1042

AVP Type TIME

AVP Flag M

Roaming-Restricted-Due-To-Unsupported-Feature

This AVP indicates that roaming is restricted due to unsupported feature.

Vendor ID 10415

VSA Type 1457

AVP Type ENUM

Supported enumerated value(s):

0 ROAMING_RESTRICTED_DUE_TO_UNSUPPORTED_FEATURE

AVP Flag M

Role-Of-Node

This AVP specifies the role of the AS/CSCF.

Vendor ID 10415

VSA Type 829

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Route-Record

The value added to this AVP same as the one received in the Origin-Host of the Capabilities Exchange message.

Vendor ID 0

VSA Type 282

AVP Type DIAMIDENT

AVP Flag M

Routing-Area-Identity

This AVP contains the routing area identifier of the user.

Vendor ID 10415

VSA Type 1605

AVP Type OCTETSTRING

AVP Flag M

Routing-Policy

This AVP is used to describe a single IP flow.

Vendor ID 10415

VSA Type 312

AVP Type IPFILTERRULE

AVP Flag M

Rule-Action

This AVP indicates the action to be taken when the rule condition occurred for the call.

Vendor ID 9

VSA Type 132066

AVP Type ENUM

Supported enumerated value(s):

1 ALLOWED

AVP Flag N/A

Rule-Activation-Time

This AVP contains the value indicating the NTP time at which the PCC rule has to be enforced.

Vendor ID 10415

VSA Type 1043

AVP Type TIME

AVP Flag M

Rule-Condition

This AVP indicates the condition with the action that has to be applied for the call.

Vendor ID 9

VSA Type 132065

AVP Type ENUM

Supported enumerated value(s):

1 OUT_OF_CREDIT

AVP Flag N/A

Rule-Condition-Action

This AVP specifies the special action to be taken by PCEF when the dynamic rule is matched and conditions are met. This is part of Charging-Rule-Definition AVP and can be received in CCA-I/CCA-U/RAR.

Vendor ID 9

VSA Type 132064

AVP Type GROUPED

Supported group value(s):

[RULE_CONDITION]

[RULE_ACTION]

AVP Flag N/A

Rule-Deactivation-Time

This AVP contains the value indicating the NTP time at which the PCEF has to stop enforcing the PCC rule.

Vendor ID 10415

VSA Type 1044

AVP Type TIME

AVP Flag M

Rule-Failure-Code

This AVP contains the rule failure code.

Vendor ID 10415

VSA Type 1031

AVP Type ENUM

Supported enumerated value(s):

1 UNKNOWN_RULE_NAME

2 RATING_GROUP_ERROR

3 SERVICE_IDENTIFIER_ERROR

4 GW/PCEF_MALFUNCTION

5 RESOURCES_LIMITATION

6 MAX_NR_BEARERS_REACHED

7 UNKNOWN_BEARER_ID

8 MISSING_BEARER_ID

9 MISSING_FLOW_DESCRIPTION

10 RESOURCE_ALLOCATION_FAILURE

11 UNSUCCESSFUL_QOS_VALIDATION

12 INCORRECT_FLOW_INFORMATION

13 PS_TO_CS_HANDOVER

14 TDF_APPLICATION_IDENTIFIER_ERROR

15 NO_BEARER_BOUND

17 AN_GW_FAILED

18 MISSING_REDIRECT_SERVER_ADDRESS

AVP Flag M

Rule-Reason-Code

This AVP contains the rule reason code.

Vendor ID 5535

VSA Type 814

AVP Type ENUM

Supported enumerated value(s):

0 UNKNOWN_FLOW_IDENTIFIER

1 UNKNOWN_RULE_NAME

2 RATING_GROUP_ERROR

3 SERVICE_IDENTIFIER_ERROR

4 AGW_MALFUNCTION

5 RESOURCES_LIMITATION

AVP Flag M

S1AP-Cause

S1AP-Cause

Vendor ID 10415

VSA Type 4302

AVP Type UINT32

AVP Flag M

SC-Address

SC-Address

Vendor ID 10415

VSA Type 3300

AVP Type OCTETSTRING

AVP Flag M

SCEF-ID

SCEF-ID

Vendor ID 10415

VSA Type 3125

AVP Type DIAMIDENT

AVP Flag M

SCEF-Realm

SCEF-Realm

Vendor ID 10415

VSA Type 1684

AVP Type DIAMIDENT

AVP Flag N/A

SCEF-Reference-ID

SCEF-Reference-ID

Vendor ID 10415

VSA Type 3124

AVP Type UINT32

AVP Flag M

SCEF-Reference-ID-for-Deletion

SCEF-Reference-ID-for-Deletion

Vendor ID 10415

VSA Type 3126

AVP Type UINT32

AVP Flag M

SCEF-Wait-Time

SCEF-Wait-Time

Vendor ID 10415

VSA Type 4316

AVP Type TIME

AVP Flag M

SCSCF-Restoration-Info

This AVP contains the information required for an S-CSCF to handle the requests for a user.

Vendor ID 10415

VSA Type 639

AVP Type GROUPED

Supported group value(s):

[USER_NAME]

[RESTORATION_INFO]

[SIP_AUTHENTICATION_SCHEME]

AVP Flag N/A

SD-Action

SD-Action

Vendor ID 9

VSA Type 132042

AVP Type ENUM

Supported enumerated value(s):

0 QUERY

1 QUERY_AND_RECOVER

AVP Flag N/A

SDP-Answer-Timestamp

This AVP specifies the time in UTC format of the response to the SDP offer.

Vendor ID 0

VSA Type 1275

AVP Type TIME

AVP Flag M

SDP-Media-Component

This AVP contains the interface representing the SDP-Media-Component grouped AVP type.

Vendor ID 10415

VSA Type 843

AVP Type GROUPED

Supported group value(s):

[SDP_MEDIA_NAME]

[SDP_MEDIA_DESCRIPTION]

[MEDIA_INITIATOR_FLAG]

[AUTHORISED_QOS]

[3GPP_CHARGING_ID]

AVP Flag M

SDP-Media-Description

This AVP contains the content of an attribute-line" (i=, c=, b=, k=, a=) related to a media component. The attributes are specifying the media described in the SDP-Media-Name AVP.

Vendor ID 10415

VSA Type 845

AVP Type UTF8STRING

AVP Flag M

SDP-Media-Name

This AVP holds the content of a "m=" line in the SDP data.

Vendor ID 10415

VSA Type 844

AVP Type UTF8STRING

AVP Flag M

SDP-Offer-Timestamp

This AVP specifies the time in UTC format of the SDP offer.

Vendor ID 0

VSA Type 1274

AVP Type TIME

AVP Flag M

SDP-Session-Description

This AVP holds the content of an "attribute-line" (i=, c=, b=, k=, a=) related to a session.

Vendor ID 10415

VSA Type 842

AVP Type UTF8STRING

AVP Flag M

SDP-TimeStamps

This AVP specifies the time of the SDP offer and the SDP answer.

Vendor ID 0

VSA Type 1273

AVP Type GROUPED

Supported group value(s):

[SDP_OFFER_TIMESTAMP]

[SDP_ANSWER_TIMESTAMP]

AVP Flag M

SDP-Type

This AVP indicates whether the SDP media component is of type SDP offer or SDP answer.

Vendor ID 10415

VSA Type 2036

AVP Type ENUM

Supported enumerated value(s):

0 SDP_OFFER

1 SDP_ANSWER

AVP Flag M

SGSN-Address

This AVP contains the IP address of the SGSN that was used during a report.

Vendor ID 10415

VSA Type 1228

AVP Type ADDRESS

AVP Flag M

SGSN-Location-Information

This AVP contains the location information of the SGSN user.

Vendor ID 10415

VSA Type 1601

AVP Type GROUPED

Supported group value(s):

[CELL_GLOBAL_IDENTITY]

[LOCATION_AREA_IDENTITY]

[SERVICE_AREA_IDENTITY]

[ROUTING_AREA_IDENTITY]

[GEOGRAPHICAL_INFORMATION]

[GEODETIC_INFORMATION]

[CURRENT_LOCATION_RETRIEVED]

[AGE_OF_LOCATION_INFORMATION]

AVP Flag M

SGSN-Number

This AVP contains the ISDN number of the SGSN.

Vendor ID 10415

VSA Type 1489

AVP Type OCTETSTRING

AVP Flag M

SGSN-SM-Delivery-Outcome

SGSN-SM-Delivery-Outcome

Vendor ID 10415

VSA Type 3319

AVP Type GROUPED

Supported group value(s):

[SM_DELIVERY_CAUSE]

[ABSENT_USER_DIAGNOSTIC_SM]

AVP Flag M

SGSN-User-State

This AVP indicates the current state of the SGSN user.

Vendor ID 10415

VSA Type 1498

AVP Type GROUPED

Supported group value(s):

[USER_STATE]

AVP Flag M

SGW-Change

This AVP indicates that this is the first Accounting Request (ACR) due to S-GW change.

Vendor ID 10415

VSA Type 2065

AVP Type ENUM

Supported enumerated value(s):

0 ACR_START_NOT_DUE_TO_SGW_CHANGE

1 ACR_START_DUE_TO_SGW_CHANGE

AVP Flag M

SGW-Type

This AVP specifies the type of SGW of current flow.

Vendor ID 10415

VSA Type 7001

AVP Type UINT32

AVP Flag M

SIP-AOR

SIP-AOR

Vendor ID 0

VSA Type 122

AVP Type UTF8STRING

AVP Flag M

SIP-Auth-Data-Item

This AVP contains the authentication and/or authorization information for the Diameter client.

Vendor ID 10415

VSA Type 612

AVP Type GROUPED

Supported group value(s):

[SIP_ITEM_NUMBER]

[SIP_AUTHENTICATION_SCHEME]

[SIP_AUTHENTICATE]

[SIP_DIGEST_AUTHENTICATE]

[SIP_AUTHORIZATION]

[SIP_AUTHENTICATION_CONTEXT]

[CONFIDENTIALITY_KEY]

[INTEGRITY_KEY]

[LINE_IDENTIFIER]

AVP Flag M

SIP-Authenticate

This AVP contains specific parts of the data portion of the WWW-Authenticate or Proxy-Authenticate SIP headers that are to be present in a SIP response.

Vendor ID 10415

VSA Type 609

AVP Type OCTETSTRING

AVP Flag M

SIP-Authentication-Context

This AVP contains authentication-related information relevant for performing the authentication but that is not part of the SIP authentication headers.

Vendor ID 10415

VSA Type 611

AVP Type OCTETSTRING

AVP Flag M

SIP-Authentication-Scheme

This AVP contains the authentication scheme used in the authentication of SIP messages.

Vendor ID 10415

VSA Type 608

AVP Type UTF8STRING

AVP Flag M

SIP-Authorization

This AVP contains specific parts of the data portion of the Authorization or Proxy-Authorization SIP headers suitable for inclusion in a SIP request.

Vendor ID 10415

VSA Type 610

AVP Type OCTETSTRING

AVP Flag M

SIP-Digest-Authenticate

This AVP contains a reconstruction of either the SIP WWW-Authenticate or Proxy-Authentication header fields specified in IETF RFC 2617.

Vendor ID 10415

VSA Type 635

AVP Type GROUPED

Supported group value(s):

[DIGEST_REALM]

[DIGEST_DOMAIN]

[DIGEST_ALGORITHM]

[DIGEST_QOP]

[DIGEST_HA1]

[DIGEST_AUTH_PARAM]

AVP Flag M

SIP-Forking-Indication

This AVP indicates if several SIP dialogues are related to one Diameter session.

Vendor ID 10415

VSA Type 523

AVP Type ENUM

Supported enumerated value(s):

0 SINGLE_DIALOGUE

1 SEVERAL_DIALOGUES

AVP Flag M

SIP-Item-Number

This AVP contains the order number of the SIP-Auth-Data-Item AVP.

Vendor ID 10415

VSA Type 613

AVP Type UINT32

AVP Flag M

SIP-Message

This AVP hold the entire SIP message or messages received by the IAP.

Vendor ID 4491

VSA Type 229

AVP Type OCTETSTRING

AVP Flag M

SIP-Method

This AVP holds the name of the SIP Method (INVITE, UPDATE, etc.) causing an accounting request to be sent to the AAA.

Vendor ID 10415

VSA Type 824

AVP Type UTF8STRING

AVP Flag M

SIP-Number-Auth-Items

This AVP contains the number of authentication vectors asked/provided.

Vendor ID 10415

VSA Type 607

AVP Type UINT32

AVP Flag M

SIP-Request-Timestamp

This AVP holds the time in UTC format of the initial SIP request (for example, Invite).

Vendor ID 0

VSA Type 834

AVP Type TIME

AVP Flag M

SIP-Request-Timestamp-Fraction

SIP-Request-Timestamp-Fraction

Vendor ID 0

VSA Type 2301

AVP Type UINT32

AVP Flag M

SIP-Response-Timestamp

This AVP holds the time in UTC format of the response to the initial SIP request (for example, 200 OK).

Vendor ID 0

VSA Type 835

AVP Type TIME

AVP Flag M

SIP-Response-Timestamp-Fraction

SIP-Response-Timestamp-Fraction

Vendor ID 0

VSA Type 2302

AVP Type UINT32

AVP Flag M

SIPTO-Permission

SIPTO-Permission

Vendor ID 10415

VSA Type 1613

AVP Type ENUM

Supported enumerated value(s):

0 SIPTO_ALLOWED

1 SIPTO_NOTALLOWED

AVP Flag M

SM-Cause

SM-Cause

Vendor ID 10415

VSA Type 4305

AVP Type UINT32

AVP Flag M

SM-Delivery-Cause

SM-Delivery-Cause

Vendor ID 10415

VSA Type 3321

AVP Type ENUM

Supported enumerated value(s):

0 UE_MEMORY_CAPACITY_EXCEEDED

1 ABSENT_USER

2 SUCCESSFUL_TRANSFER

AVP Flag M

SM-Delivery-Failure-Cause

SM-Delivery-Failure-Cause

Vendor ID 10415

VSA Type 3303

AVP Type GROUPED

Supported group value(s):

[SM_ENUMERATED_DELIVERY_FAILURE_CAUSE]

[SM_DIAGNOSTIC_INFO]

AVP Flag M

SM-Delivery-Outcome

SM-Delivery-Outcome

Vendor ID 10415

VSA Type 3316

AVP Type GROUPED

Supported group value(s):

[SM_DELIVERY_CAUSE]

[ABSENT_USER_DIAGNOSTIC_SM]

AVP Flag M

SM-Delivery-Start-Time

SM-Delivery-Start-Time

Vendor ID 10415

VSA Type 3307

AVP Type TIME

AVP Flag M

SM-Delivery-Timer

SM-Delivery-Timer

Vendor ID 10415

VSA Type 3306

AVP Type UINT32

AVP Flag M

SM-Diagnostic-Info

SM-Diagnostic-Info

Vendor ID 10415

VSA Type 3305

AVP Type OCTETSTRING

AVP Flag M

SM-Enumerated-Delivery-Failure-Cause

SM-Enumerated-Delivery-Failure-Cause

Vendor ID 10415

VSA Type 3304

AVP Type ENUM

Supported enumerated value(s):

0 MEMORY_CAPACITY_EXCEEDED

1 EQUIPMENT_PROTOCOL_ERROR

2 EQUIPMENT_NOT_SM-EQUIPPED

3 UNKNOWN_SERVICE_CENTRE

4 SC-CONGESTION

5 INVALID_SME-ADDRESS

6 USER_NOT_SC-USER

AVP Flag M

SM-RP-UI

SM-RP-UI

Vendor ID 10415

VSA Type 3301

AVP Type OCTETSTRING

AVP Flag M

SMS-GMSC-Address

SMS-GMSC-Address

Vendor ID 10415

VSA Type 3332

AVP Type OCTETSTRING

AVP Flag N/A

SMS-GMSC-Alert-Event

SMS-GMSC-Alert-Event

Vendor ID 10415

VSA Type 3333

AVP Type UINT32

AVP Flag N/A

SMS-Register-Request

SMS-Register-Request

Vendor ID 10415

VSA Type 1648

AVP Type ENUM

Supported enumerated value(s):

0 SMS_REGISTRATION_REQUIRED

1 SMS_REGISTRATION_NOT_PREFERRED

2 NO_PREFERENCE

AVP Flag N/A

SMSMI-Correlation-ID

SMSMI-Correlation-ID

Vendor ID 10415

VSA Type 3324

AVP Type GROUPED

Supported group value(s):

[HSS_ID]

[ORIGINATING_SIP_URI]

[DESTINATION_SIP_URI]

AVP Flag N/A

SN-Absolute-Validity-Time

This AVP contains the validity time of the granted service units.

Vendor ID 8164

VSA Type 505

AVP Type TIME

AVP Flag N/A

SN-Bandwidth-Control

This AVP contains the value to control bandwidth usage.

Vendor ID 8164

VSA Type 512

AVP Type ENUM

Supported enumerated value(s):

0 HIGH

1 LOW

AVP Flag M

SN-CF-Policy-ID

SN-CF-Policy-ID

Vendor ID 8164

VSA Type 529

AVP Type UINT32

AVP Flag M

SN-Charging-Collection-Function-Name

SN-Charging-Collection-Function-Name

Vendor ID 8164

VSA Type 530

AVP Type UTF8STRING

AVP Flag N/A

SN-Charging-Id

This AVP contains the charging identifier.

Vendor ID 8164

VSA Type 525

AVP Type OCTETSTRING

AVP Flag N/A

SN-Fast-Reauth-Username

This AVP is used for fast re-authentication of subscriber.

Vendor ID 8164

VSA Type 11010

AVP Type OCTETSTRING

AVP Flag M

SN-Firewall-Policy

This AVP contains the name of the Firewall policy to be enabled.

Vendor ID 8164

VSA Type 515

AVP Type UTF8STRING

AVP Flag N/A

SN-Monitoring-Key

It is an identifier to a usage monitoring control instance.

Vendor ID 8164

VSA Type 518

AVP Type UINT32

AVP Flag N/A

SN-Phase0-PSAPName

This AVP contains name of the County to be used for a subscriber.

Vendor ID 8164

VSA Type 523

AVP Type UTF8STRING

AVP Flag N/A

SN-Pseudonym-Username

This AVP is used for reauthentication of subscriber.

Vendor ID 8164

VSA Type 11011

AVP Type OCTETSTRING

AVP Flag M

SN-Remaining-Service-Unit

SN-Remaining-Service-Unit

Vendor ID 8164

VSA Type 526

AVP Type GROUPED

Supported group value(s):

[TARIFF_CHANGE_USAGE]

[CC_TIME]

[CC_TOTAL_OCTETS]

[CC_INPUT_OCTETS]

[CC_OUTPUT_OCTETS]

[CC_SERVICE_SPECIFIC_UNITS]

[3GPP_REPORTING_REASON]

AVP Flag N/A

SN-Rulebase-Id

SN-Rulebase-Id

Vendor ID 8164

VSA Type 528

AVP Type UTF8STRING

AVP Flag M

SN-Service-Flow-Detection

This AVP defines whether the PCEF should notify the PCRF when it detects traffic matching rules included within Charging-Rule-Install AVP.

Vendor ID 8164

VSA Type 520

AVP Type ENUM

Supported enumerated value(s):

0 ENABLE_DETECTION

AVP Flag N/A

SN-Service-Start-Timestamp

SN-Service-Start-Timestamp

Vendor ID 8164

VSA Type 527

AVP Type TIME

AVP Flag N/A

SN-Time-Quota-Threshold

This AVP contains a quota threshold for time in percent value. This is vendor specific AVP.

Vendor ID 8164

VSA Type 503

AVP Type UINT32

AVP Flag M

SN-Total-Used-Service-Unit

This is a vendor-specific AVP. This AVP contains the total consumed service units.

Vendor ID 8164

VSA Type 504

AVP Type GROUPED

Supported group value(s):

[TARIFF_CHANGE_USAGE]

[CC_TIME]

[CC_TOTAL_OCTETS]

[CC_INPUT_OCTETS]

[CC_OUTPUT_OCTETS]

[CC_SERVICE_SPECIFIC_UNITS]

[3GPP_REPORTING_REASON]

AVP Flag N/A

SN-Traffic-Policy

This AVP contains name of the Traffic Policing Policy.

Vendor ID 8164

VSA Type 514

AVP Type UTF8STRING

AVP Flag N/A

SN-Transparent-Data

This is a vendor-specific AVP. This AVP contains current PDP session information. This AVP provides information obtained from the RADIUS server during Access-Accept that can be put into vendor-specific extension towards the CGF and Prepaid server for billing purposes. This AVP is optional in the Access-Accept message.

Vendor ID 8164

VSA Type 513

AVP Type OCTETSTRING

AVP Flag N/A

SN-Unit-Quota-Threshold

This is a vendor-specific AVP. This AVP contains quota threshold for service specific units of quota in the CLCI-C in percent value.

Vendor ID 8164

VSA Type 502

AVP Type UINT32

AVP Flag M

SN-Usage-Monitoring

This AVP is used by PCRF to indicate if usage-monitoring and reporting is enabled or disabled.

Vendor ID 8164

VSA Type 521

AVP Type ENUM

Supported enumerated value(s):

0 USAGE_MONITORING_DISABLED

1 USAGE_MONITORING_ENABLED

AVP Flag N/A

SN-Usage-Monitoring-Control

This AVP is used for provisioning and reporting of usage information.

Vendor ID 8164

VSA Type 517

AVP Type GROUPED

Supported group value(s):

[SN_MONITORING_KEY]

[SN_USAGE_MONITORING]

[SN_USAGE_VOLUME]

AVP Flag N/A

SN-Usage-Volume

This AVP indicates total uplink and downlink usage volume in octets.

Vendor ID 8164

VSA Type 519

AVP Type UINT64

AVP Flag N/A

SN-Volume-Quota-Threshold

This AVP contains a volume threshold value in percentage value.

Vendor ID 8164

VSA Type 501

AVP Type UINT32

AVP Flag M

SN1-IPv6-Primary-DNS

SN1-IPv6-Primary-DNS

Vendor ID 8164

VSA Type 101

AVP Type ADDRESS

AVP Flag M

SN1-IPv6-Secondary-DNS

SN1-IPv6-Secondary-DNS

Vendor ID 8164

VSA Type 102

AVP Type ADDRESS

AVP Flag M

SN1-Primary-DNS-Server

SN1-Primary-DNS-Server

Vendor ID 8164

VSA Type 5

AVP Type ADDRESS

AVP Flag M

SN1-Rulebase

SN1-Rulebase

Vendor ID 8164

VSA Type 250

AVP Type UTF8STRING

AVP Flag M

SN1-Secondary-DNS-Server

SN1-Secondary-DNS-Server

Vendor ID 8164

VSA Type 6

AVP Type ADDRESS

AVP Flag M

SN1-VPN-Name

SN1-VPN-Name

Vendor ID 8164

VSA Type 2

AVP Type UTF8STRING

AVP Flag M

SRES

This AVP contains the SRES.

Vendor ID 10415

VSA Type 1454

AVP Type OCTETSTRING

AVP Flag M

SS-Action

SS-Action

Vendor ID 9

VSA Type 132072

AVP Type ENUM

Supported enumerated value(s):

0 QUERY

1 QUERY_AND_RECOVER

AVP Flag N/A

SS-Code

This AVP contains the supplementary service codes that are to be deleted from the subscription.

Vendor ID 10415

VSA Type 1476

AVP Type OCTETSTRING

AVP Flag M

SS-Status

This AVP refers to the state information of individual supplementary services as defined in 3GPP TS 23.011.

Vendor ID 10415

VSA Type 1477

AVP Type OCTETSTRING

AVP Flag M

SSID

SSID

Vendor ID 10415

VSA Type 1524

AVP Type UTF8STRING

AVP Flag N/A

STN-SR

This AVP contains the session transfer number for SRVCC.

Vendor ID 10415

VSA Type 1433

AVP Type UTF8STRING

AVP Flag M

Secondary-Charging-Collection-Function-Name

Defines the address of the secondary offline charging system for the bearer.

Vendor ID 10415

VSA Type 622

AVP Type DIAMURI

AVP Flag M

Secondary-Event-Charging-Function-Name

Defines the address of the secondary online charging system for the bearer.

Vendor ID 10415

VSA Type 620

AVP Type DIAMURI

AVP Flag M

Secondary-RAT-Type

It holds the value of Secondary RAT Type, as provided by the RAN.

Vendor ID 10415

VSA Type 1304

AVP Type OCTETSTRING

AVP Flag N/A

Sector-Id

The identifier of sector that MS exists.

Vendor ID 0

VSA Type 10002

AVP Type UINT32

AVP Flag M

Security-Parameter-Index

This AVP contains the security parameter index of the IPSec packet.

Vendor ID 10415

VSA Type 1056

AVP Type OCTETSTRING

AVP Flag M

Send-Data-Indication

This AVP indicates that sender requests user data in SNR.

Vendor ID 0

VSA Type 710

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Served-Party-IP-Address

This AVP holds the IP address of either the calling or called party, depending on whether the P-CSCF is in touch with the calling or the called party. This AVP is only provided by the P-CSCF and S-CSCF.

Vendor ID 10415

VSA Type 848

AVP Type ADDRESS

AVP Flag M

Server-Assignment-Type

This AVP contains the type of server update being performed in a Server-Assignment-Request operation.

Vendor ID 10415

VSA Type 614

AVP Type ENUM

Supported enumerated value(s):

0 NO_ASSIGNMENT

1 REGISTRATION

2 RE_REGISTRATION

3 UNREGISTERED_USER

4 TIMEOUT_DEREGISTRATION

5 USER_DEREGISTRATION

6 TIMEOUT_DEREGISTRATION_STORE_SERVER_NAME

7 USER_DEREGISTRATION_STORE_SERVER_NAME

8 ADMINISTRATIVE_DEREGISTRATION

9 AUTHENTICATION_FAILURE

10 AUTHENTICATION_TIMEOUT

11 DEREGISTRATION_TOO_MUCH_DATA

AVP Flag M

Server-Capabilities

This grouped AVP contains information/capabilities of an S-CSCF server.

Vendor ID 10415

VSA Type 603

AVP Type GROUPED

Supported group value(s):

[MANDATORY_CAPABILITY]

[OPTIONAL_CAPABILITY]

[SERVER_NAME]

AVP Flag M

Server-Name

This AVP contains a SIP-URL used to identify a SIP server.

Vendor ID 10415

VSA Type 602

AVP Type UTF8STRING

AVP Flag M

Service-Activation

Service-Activation

Vendor ID 9

VSA Type 131094

AVP Type ENUM

Supported enumerated value(s):

0 USER_PROFILE

1 AUTOMATIC

AVP Flag M

Service-Area-Identity

This AVP contains the service area identifier of the user.

Vendor ID 10415

VSA Type 1607

AVP Type OCTETSTRING

AVP Flag M

Service-CDR-Threshold

Service-CDR-Threshold

Vendor ID 9

VSA Type 131129

AVP Type GROUPED

Supported group value(s):

[CDR_VOLUME_THRESHOLD]

[CDR_TIME_THRESHOLD]

AVP Flag M

Service-Class

This AVP contains the service class requested by the AF.

Vendor ID 13019

VSA Type 459

AVP Type UTF8STRING

AVP Flag N/A

Service-Class-Type

Service-Class-Type

Vendor ID 9

VSA Type 131100

AVP Type UINT32

AVP Flag N/A

Service-Context-Id

This AVP contains a unique identifier of the Diameter Credit Control service specific document that applies to the request. This is an identifier allocated by the service provider/operator, by the service element manufacturer or by a standardization body and MUST uniquely identify a given Diameter Credit Control service specific document. For offline charging, this identifies the service specific document ('middle tier' TS) on which associated CDRs should based. The format of the Service-Context-Id is: "extensions".MNC.MCC."Release"."service-context" "@" "domain"

Vendor ID 0

VSA Type 461

AVP Type UTF8STRING

AVP Flag M

Service-Data-Container

This AVP enables the transmission of the container to be reported for Flow-based Charging. On encountering change on charging condition, this container identifies the volume count (separated for uplink and downlink), elapsed time or number of events, per service data flow identified per rating group or combination of the rating group and service id within an IP-CAN bearer.

Vendor ID 10415

VSA Type 2040

AVP Type GROUPED

Supported group value(s):

[AF_CORRELATION_INFORMATION]

[CHARGING_RULE_BASE_NAME]

[ACCOUNTING_INPUT_OCTETS]

[ACCOUNTING_OUTPUT_OCTETS]

[ACCOUNTING_INPUT_PACKETS]

[ACCOUNTING_OUTPUT_PACKETS]

[LOCAL_SEQUENCE_NUMBER]

[QOS_INFORMATION]

[RATING_GROUP]

[CHANGE_TIME]

[SERVICE_IDENTIFIER]

[SERVICE_SPECIFIC_INFO]

[SGSN_ADDRESS]

[TIME_FIRST_USAGE]

[TIME_LAST_USAGE]

[TIME_USAGE]

[CHANGE_CONDITION]

[3GPP_USER_LOCATION_INFO]

[FLOW_DESCRIPTION]

[CHARGING_RULE_NAME]

[FIRST_PACKET_DIRECTION]

[3GPP2_BSID]

AVP Flag M

Service-Definition

Service-Definition

Vendor ID 9

VSA Type 131076

AVP Type GROUPED

Supported group value(s):

[SERVICE_NAME]

[ONLINE_BILLING_BASIS]

[DUAL_BILLING_BASIS]

[SERVICE_REPORTING_LEVEL]

[SERVICE_CDR_THRESHOLD]

[SERVICE_ACTIVATION]

[ADVICE_OF_CHARGE]

[SERVICE_CLASS_TYPE]

[SERVICE_IDLE_TIME]

[OWNER_ID]

[OWNER_NAME]

[ONLINE_PASSTHROUGH_QUOTA]

[DUAL_PASSTHROUGH_QUOTA]

[ONLINE_REAUTHORIZATION_THRESHOLD]

[DUAL_REAUTHORIZATION_THRESHOLD]

[ONLINE_REAUTHORIZATION_TIMEOUT]

[REFUND_POLICY]

[METER_EXCLUDE]

[METER_INCLUDE_IMAP]

[METERING_GRANULARITY]

[VERIFY]

[CISCO_QUOTA_CONSUMPTION_TIME]

[SERVICE_RATING_GROUP]

[CISCO_QOS_PROFILE_UPLINK]

[CISCO_QOS_PROFILE_DOWNLINK]

[HEADER_GROUP_NAME]

[CONTENT_POLICY_MAP]

[SERVICE_LIFE_TIME]

AVP Flag M

Service-Group-Definition

Service-Group-Definition

Vendor ID 9

VSA Type 131244

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_NAME]

[CISCO_EVENT_TRIGGER]

[CISCO_QOS]

[CISCO_FLOW_STATUS]

[REDIRECT_SERVER]

AVP Flag M

Service-Group-Event

Service-Group-Event

Vendor ID 9

VSA Type 131247

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_NAME]

[CISCO_EVENT]

AVP Flag M

Service-Group-Install

Service-Group-Install

Vendor ID 9

VSA Type 131245

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_DEFINITION]

AVP Flag M

Service-Group-Name

Service-Group-Name

Vendor ID 9

VSA Type 131243

AVP Type OCTETSTRING

AVP Flag M

Service-Group-Remove

Service-Group-Remove

Vendor ID 9

VSA Type 131246

AVP Type GROUPED

Supported group value(s):

[SERVICE_GROUP_NAME]

AVP Flag M

Service-Identifier

Specifies the identity of the service or service component the service data flow in a charging rule relates to.

Vendor ID 0

VSA Type 439

AVP Type UINT32

AVP Flag M

Service-Idle-Time

Service-Idle-Time

Vendor ID 9

VSA Type 131101

AVP Type UINT32

AVP Flag N/A

Service-Indication

This AVP contains the Service Indication that identifies a service in AS.

Vendor ID 0

VSA Type 704

AVP Type OCTETSTRING

AVP Flag M

Service-Info

Service-Info

Vendor ID 9

VSA Type 131078

AVP Type GROUPED

Supported group value(s):

[SERVICE_NAME]

[ONLINE]

[VIRTUAL_ONLINE]

AVP Flag M

Service-Info-Status

This AVP indicates the status of the service information that the AF is providing to the PCRF.

Vendor ID 10415

VSA Type 527

AVP Type ENUM

Supported enumerated value(s):

0 FINAL_SERVICE_INFORMATION

1 PRELIMINARY_SERVICE_INFORMATION

AVP Flag M

Service-Information

The purpose of this AVP is to allow the transmission of additional 3GPP service-specific information elements.

Vendor ID 10415

VSA Type 873

AVP Type GROUPED

Supported group value(s):

[IMS_INFORMATION]

AVP Flag M

Service-Install

Service-Install

Vendor ID 9

VSA Type 131185

AVP Type GROUPED

Supported group value(s):

[SERVICE_DEFINITION]

AVP Flag M

Service-Life-Time

Service-Life-Time

Vendor ID 9

VSA Type 131257

AVP Type UINT32

AVP Flag N/A

Service-Name

Service-Name

Vendor ID 9

VSA Type 131087

AVP Type OCTETSTRING

AVP Flag M

Service-Parameter-Info

Service-specific information used for rating.

Vendor ID 0

VSA Type 440

AVP Type GROUPED

Supported group value(s):

[SERVICE_PARAMETER_TYPE]

[SERVICE_PARAMETER_VALUE]

AVP Flag M

Service-Parameter-Type

Service event specific parameter (for example, end-user location or service name.

Vendor ID 0

VSA Type 441

AVP Type UINT32

AVP Flag M

Service-Parameter-Value

Value of the service parameter type.

Vendor ID 0

VSA Type 442

AVP Type OCTETSTRING

AVP Flag M

Service-Rating-Group

Service-Rating-Group

Vendor ID 9

VSA Type 131162

AVP Type UINT32

AVP Flag N/A

Service-Remove

Service-Remove

Vendor ID 9

VSA Type 131186

AVP Type GROUPED

Supported group value(s):

[SERVICE_NAME]

AVP Flag M

Service-Report

Service-Report

Vendor ID 10415

VSA Type 3161

AVP Type GROUPED

Supported group value(s):

[SERVICE_RESULT]

[NODE_TYPE]

AVP Flag M

Service-Reporting-Level

Service-Reporting-Level

Vendor ID 9

VSA Type 131125

AVP Type ENUM

Supported enumerated value(s):

0 TRANSACTION

1 SERVICE

AVP Flag M

Service-Result

Service-Result

Vendor ID 10415

VSA Type 3146

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[SERVICE_RESULT_CODE]

AVP Flag M

Service-Result-Code

Service-Result-Code

Vendor ID 10415

VSA Type 3147

AVP Type UINT32

AVP Flag M

Service-Selection

This AVP contains the name of the service or the external network with which the mobility service should be associated.

Vendor ID 0

VSA Type 493

AVP Type OCTETSTRING

AVP Flag M

Service-Specific-Data

This AVP holds service specific data if and as provided by an Application Server.

Vendor ID 0

VSA Type 1249

AVP Type GROUPED

Supported group value(s):

[SERVICE_SPECIFIC_TYPE]

[SERVICE_SPECIFIC_VALUE]

AVP Flag M

Service-Specific-Info

This AVP holds service specific data if and as provided by an Application Server or a PCEF only for pre-defined PCC rules.

Vendor ID 10415

VSA Type 1249

AVP Type GROUPED

Supported group value(s):

[SERVICE_SPECIFIC_DATA]

[SERVICE_SPECIFIC_TYPE]

AVP Flag M

Service-Specific-Type

This AVP holds the type of the Service-Specific-Data.

Vendor ID 0

VSA Type 1248

AVP Type UINT32

AVP Flag M

Service-Specific-Value

This AVP holds service specific value.

Vendor ID 0

VSA Type 863

AVP Type UTF8STRING

AVP Flag M

Service-Status

Service-Status

Vendor ID 9

VSA Type 131086

AVP Type GROUPED

Supported group value(s):

[SERVICE_NAME]

[CISCO_FLOW_STATUS]

[SERVICE_RATING_GROUP]

[CISCO_QOS]

[REDIRECT_SERVER]

[SERVICE_GROUP_NAME]

AVP Flag M

Service-Type

This AVP contains the type of service the user has requested or the type of service to be provided.

Vendor ID 0

VSA Type 6

AVP Type ENUM

Supported enumerated value(s):

1 Login

2 Framed

3 Callback-Login

4 Callback-Framed

5 Outbound

6 Administrative

7 NAS-Prompt

8 Authenticate-Only

9 Callback-NAS-Prompt

10 Call-Check

11 Callback-Administrative

12 Voice

13 Fax

14 Modem-Relay

15 IAPP-Register_IEEE-802_11f

16 IAPP-AP-Check_IEEE-802_11f

17 Authorize-Only-RADDynAuth

AVP Flag M

Service-URN

This AVP indicates that an AF session is used for emergency traffic. It contains values of the service URN including sub-services, as registered at IANA.

Vendor ID 10415

VSA Type 525

AVP Type OCTETSTRING

AVP Flag M

ServiceTypeIdentity

This AVP contains the LCS service type identity.

Vendor ID 10415

VSA Type 1484

AVP Type UINT32

AVP Flag M

Serving-Node

This AVP contains information about the network node serving the targeted user.

Vendor ID 10415

VSA Type 2401

AVP Type GROUPED

Supported group value(s):

[SGSN_NUMBER]

[MME_NAME]

[MME_REALM]

[MSC_NUMBER]

[3GPP_AAA_SERVER_NAME]

[LCS_CAPABILITIES_SETS]

AVP Flag M

Serving-Node-Type

This AVP contains type of the Serving Node.

Vendor ID 10415

VSA Type 2047

AVP Type ENUM

Supported enumerated value(s):

0 SGSN

1 PMIPSGW

2 GTPSGW

3 ePDG

4 hSGW

5 MME

6 TWAN

AVP Flag M

Serving-PLMN-Rate-Control

Serving-PLMN-Rate-Control

Vendor ID 10415

VSA Type 4310

AVP Type GROUPED

Supported group value(s):

[UPLINK_RATE_LIMIT]

[DOWNLINK_RATE_LIMIT]

AVP Flag M

Session-Bundle-Id

Used to identify the group of sessions to which session of the AA-Answer belongs.

Vendor ID 13019

VSA Type 400

AVP Type UINT32

AVP Flag M

Session-Id

Specifies the specific session with an identifier.

Vendor ID 0

VSA Type 263

AVP Type UTF8STRING

AVP Flag M

Session-Linking-Indicator

This AVP indicates whether the session linking between the Gateway Control Session and the Gx session must be deferred.

Vendor ID 10415

VSA Type 1064

AVP Type ENUM

Supported enumerated value(s):

0 SESSION_LINKING_IMMEDIATE

1 SESSION_LINKING_DEFERRED

AVP Flag M

Session-Priority

This AVP indicates to the HSS or accounting server the session's priority. PRIORITY-0 is the highest priority.

Vendor ID 10415

VSA Type 650

AVP Type ENUM

Supported enumerated value(s):

0 PRIORITY-0

1 PRIORITY-1

2 PRIORITY-2

3 PRIORITY-3

4 PRIORITY-4

AVP Flag N/A

Session-Release-Cause

This AVP contains the release cause of the IP-CAN session.

Vendor ID 10415

VSA Type 1045

AVP Type ENUM

Supported enumerated value(s):

0 UNSPECIFIED_REASON

1 UE_SUBSCRIPTION_REASON

2 INSUFFICIENT_SERVER_RESOURCES

AVP Flag M

Session-Request-Type

This AVP indicates the action that the PDG is asking to the 3GPP AAA server to perform.

Vendor ID 10415

VSA Type 311

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Session-Start-Indicator

This AVP contains the SFR Session Start Indication. Flags Primary PDP Context. Value is always 0xFF".

Vendor ID 8164

VSA Type 522

AVP Type OCTETSTRING

AVP Flag M

Session-Sync-Requested

Session-Sync-Requested

Vendor ID 9

VSA Type 132041

AVP Type ENUM

Supported enumerated value(s):

1 STATE_INFORMATION_REQUIRED

AVP Flag N/A

Session-Timeout

This AVP contains the maximum number of seconds of service to be provided to the user before termination of the session.

Vendor ID 0

VSA Type 27

AVP Type UINT32

AVP Flag M

Software-Version

This AVP contains the Software Version of the International Mobile Equipment Identity.

Vendor ID 10415

VSA Type 6004

AVP Type UTF8STRING

AVP Flag M

Specific-APN-Info

This AVP contains the APN which is not present in the subscription context but the UE is authorized to connect to and the identity of the registered PDN-GW.

Vendor ID 10415

VSA Type 1472

AVP Type GROUPED

Supported group value(s):

[SERVICE_SELECTION]

[MIP6_AGENT_INFO]

[VISITED_NETWORK_IDENTIFIER]

AVP Flag M

Specific-Action

Within an E-PDF initiated Re-Authorization Request; the Specific-Action AVP determines the type of the action.

Vendor ID 10415

VSA Type 513

AVP Type ENUM

Supported enumerated value(s):

1 CHARGING_CORRELATION_EXCHANGE

2 INDICATION_OF_LOSS_OF_BEARER

3 INDICATION_OF_RECOVERY_OF_BEARER

4 INDICATION_OF_RELEASE_OF_BEARER

5 INDICATION_OF_ESTABLISHMENT_OF_BEARER

6 IP_CAN_CHANGE

AVP Flag M

Sponsor-Identity

Sponsor-Identity

Vendor ID 10415

VSA Type 531

AVP Type UTF8STRING

AVP Flag N/A

Sponsored-Connectivity-Data

Sponsored-Connectivity-Data

Vendor ID 10415

VSA Type 530

AVP Type GROUPED

Supported group value(s):

[SPONSOR_IDENTITY]

[APPLICATION_SERVICE_PROVIDER_IDENTITY]

[GRANTED_SERVICE_UNIT]

[USED_SERVICE_UNIT]

AVP Flag N/A

Starent-Subscriber-Permission

This AVP is used to control the Network Mobility (NEMO) permission on a per Enterprise/PDN connection basis.

Vendor ID 8164

VSA Type 20

AVP Type ENUM

Supported enumerated value(s):

0 None

1 Simple-IP

2 Mobile-IP

3 Simple-IP-Mobile-IP

4 HA-Mobile-IP

5 Simple-IP-HA-Mobile-IP

6 Mobile-IP-HA-Mobile-IP

7 SIP-MIP-HA-MIP

8 GGSN-PDP-TYPE-IP

16 GGSN-PDP-TYPE-PPP

32 Network-Mobility

38 FA-HA-NEMO

64 PMIPv6

127 All

AVP Flag M

Start-Time

This AVP contains a time-stamp (in UTC format) which represents the start of a service flow at the BM.

Vendor ID 10415

VSA Type 2041

AVP Type TIME

AVP Flag M

Start-of-Port-Range

Start-of-Port-Range

Vendor ID 9

VSA Type 131149

AVP Type UINT32

AVP Flag N/A

State

Sent by Diameter server to the NAS in an AA Response command that contains either a Result-Code of "DIAMETER_MULTI_ROUND_AUTH" or a "Termination-Action" AVP with the value of "AA-REQUEST".

Vendor ID 0

VSA Type 24

AVP Type OCTETSTRING

AVP Flag M

Stop-Time

This AVP contains a time-stamp (in UTC format) which represents the termination of a service flow at the BM. This AVP is only included in an accounting request with Accounting-Record-Type indicating STOP_RECORD.

Vendor ID 10415

VSA Type 2042

AVP Type TIME

AVP Flag M

Subs-Req-Type

This AVP indicates the type of subscription to notifications request in SNR.Subs-Req-Type.

Vendor ID 0

VSA Type 705

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Subscribed-Periodic-RAU-TAU-Timer

Subscribed-Periodic-RAU-TAU-Timer

Vendor ID 10415

VSA Type 1619

AVP Type UINT32

AVP Flag N/A

Subscriber-IP-Source

Subscriber-IP-Source

Vendor ID 9

VSA Type 131136

AVP Type ENUM

Supported enumerated value(s):

0 DEFAULT

1 HTTP_X_FORWARDED_FOR

AVP Flag M

Subscriber-Priority

Subscriber-Priority

Vendor ID 5535

VSA Type 6078

AVP Type GROUPED

Supported group value(s):

[3GPP2_MAX_AUTH_AGGR_BW_BET]

[3GPP2_MAX_PER_FLOW_PRIORITY_USER]

[3GPP2_INTER_USER_PRIORITY]

[3GPP2_ALLOWED_PERSISTENT_TFTS]

[3GPP2_MAX_SVC_INST_LINK_FLOW_TOTAL]

[3GPP2_SERVICE_OPTION_PROFILE]

AVP Flag M

Subscriber-Status

This AVP indicates if the service is barred or granted.

Vendor ID 10415

VSA Type 1424

AVP Type ENUM

Supported enumerated value(s):

0 SERVICEGRANTED

1 OPERATORDETERMINEDBARRING

AVP Flag M

Subscription-Data

This AVP contains the information related to the user profile relevant for EPS and GERAN/UTRAN.

Vendor ID 10415

VSA Type 6001

AVP Type GROUPED

Supported group value(s):

[SUBSCRIBER_STATUS]

[MSISDN]

[STN_SR]

[ICS_INDICATOR]

[NETWORK_ACCESS_MODE]

[OPERATOR_DETERMINED_BARRING]

[HPLMN_ODB]

[REGIONAL_SUBSCRIPTION_ZONE_CODE]

[ACCESS_RESTRICTION_DATA]

[APN_OI_REPLACEMENT]

[3GPP_CHARGING_CHARACTERISTICS]

[AMBR]

[APN_CONFIGURATION_PROFILE]

[RAT_FREQUENCY_SELECTION_PRIORITY]

[SUBSCRIBED_PERIODIC_RAU_TAU_TIMER]

[DL_BUFFERING_SUGGESTED_PACKET_COUNT]

AVP Flag M

Subscription-Id

Identifier for the end-users subscription (IMSI, MSISDN, etc.).

Vendor ID 0

VSA Type 443

AVP Type GROUPED

Supported group value(s):

[SUBSCRIPTION_ID_TYPE]

[SUBSCRIPTION_ID_DATA]

AVP Flag M

Subscription-Id-Data

Used to identify the end user information.

Vendor ID 0

VSA Type 444

AVP Type UTF8STRING

AVP Flag M

Subscription-Id-Type

Determines the type of identifier carried by the Subscription-Id AVP.

Vendor ID 0

VSA Type 450

AVP Type ENUM

Supported enumerated value(s):

0 END_USER_E164

1 END_USER_IMSI

2 END_USER_SIP_URI

3 END_USER_NAI

4 END_USER_PRIVATE

AVP Flag M

Subscription-Info

This AVP contains the UE's subscription information.

Vendor ID 10415

VSA Type 642

AVP Type GROUPED

Supported group value(s):

[CALL_ID_SIP_HEADER]

[FROM_SIP_HEADER]

[TO_SIP_HEADER]

[RECORD_ROUTE]

[CONTACT]

AVP Flag N/A

Supported-Applications

This AVP contains supported application identifiers of a Diameter node.

Vendor ID 10415

VSA Type 631

AVP Type GROUPED

Supported group value(s):

[AUTH_APPLICATION_ID]

[ACCT_APPLICATION_ID]

[VENDOR_SPECIFIC_APPLICATION_ID]

AVP Flag M

Supported-Features

This AVP informs the destination host about the features supported by the origin host.

Vendor ID 10415

VSA Type 628

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[FEATURE_LIST_ID]

[FEATURE_LIST]

AVP Flag M

Supported-Features-Resp

This AVP contains a list of supported features of the origin host (Answer message without M bit set).

Vendor ID 10415

VSA Type 628

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID_RESP]

[FEATURE_LIST_ID_RESP]

[FEATURE_LIST_RESP]

AVP Flag N/A

Supported-Features-without-M-bit

Supported-Features-without-M-bit

Vendor ID 10415

VSA Type 628

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[FEATURE_LIST_ID]

[FEATURE_LIST]

AVP Flag N/A

Supported-GAD-Shapes

This AVP contains a bitmask. A node shall mark in the BIT STRING all shapes defined in 3GPP TS 23.032. Bits 6-0 indicate the supported shapes defined in 3GPP TS 23.032. Bits 7 to 31 can be ignored.

Vendor ID 10415

VSA Type 2510

AVP Type UINT32

AVP Flag M

Supported-RAT-Type

This AVP contains one of E-UTRAN, UTRAN, GERAN, GAN, I-HSPA-EVOLUTION.

Vendor ID 10415

VSA Type 6005

AVP Type UTF8STRING

AVP Flag M

Supported-Vendor-Id

Specifies the vendor ID other than the device vendor.

Vendor ID 0

VSA Type 265

AVP Type UINT32

AVP Flag M

TCP-SYN

TCP-SYN

Vendor ID 9

VSA Type 131194

AVP Type UTF8STRING

AVP Flag M

TDF-Application-Identifier

It references the application detection filter (e.g. its value may represent an application such as a list of URLs, etc.) which the PCC rule for Application Detection and Control in the PCEF applies. The TDF-Application-Identifier AVP also references the application in the reporting to the PCRF.

Vendor ID 10415

VSA Type 1088

AVP Type OCTETSTRING

AVP Flag N/A

TDF-Application-Instance-Identifier

This AVP will be dynamically assigned by the PCEF supporting ADC feature in order to allow correlation of application Start and Stop events to the specific service data flow description, if service data flow descriptions are deducible and will be reported from the PCEF to the PCRF when the flow description is deducible along with the corresponding Event Trigger.

Vendor ID 10415

VSA Type 2802

AVP Type OCTETSTRING

AVP Flag N/A

TFR-Flags

TFR-Flags

Vendor ID 10415

VSA Type 3302

AVP Type UINT32

AVP Flag M

TFT-Filter

This AVP contains the flow filter for one Traffic Flow Template (TFT) packet filter.

Vendor ID 10415

VSA Type 1012

AVP Type IPFILTERRULE

AVP Flag M

TFT-Packet-Filter-Information

This AVP contains the information from a single TFT packet filter including the evaluation precedence, the filter and the Type-of-Service/Traffic Class sent from the TPF to the CRF.

Vendor ID 10415

VSA Type 1013

AVP Type GROUPED

Supported group value(s):

[PRECEDENCE]

[TFT_FILTER]

[TOS_TRAFFIC_CLASS]

[FLOW_DIRECTION]

AVP Flag M

TMGI

This AVP contains the Temporary Mobile Group Identity (TMGI) allocated to a particular MBMS bearer service.

Vendor ID 10415

VSA Type 900

AVP Type OCTETSTRING

AVP Flag M

TMO-Clientless-Optimisation-Rule

TMO-Clientless-Optimisation-Rule

Vendor ID 29168

VSA Type 1004

AVP Type UINT32

AVP Flag N/A

TMO-Virtual-Gi-ID

TMO-Virtual-Gi-ID

Vendor ID 29168

VSA Type 120

AVP Type UINT32

AVP Flag N/A

TS-Code

This AVP contains the code identifying a single teleservice, a group of teleservices, or all teleservices.

Vendor ID 10415

VSA Type 1487

AVP Type OCTETSTRING

AVP Flag M

TWAN-Identifier

TWAN-Identifier

Vendor ID 10415

VSA Type 29

AVP Type OCTETSTRING

AVP Flag N/A

TWAN-User-Location-Info

This AVP indicates the UE location in a Trusted WLAN Access Network (TWAN). This grouped AVP contains BSSID and SSID of the access point.

Vendor ID 10415

VSA Type 2714

AVP Type GROUPED

Supported group value(s):

[SSID]

[BSSID]

AVP Flag M

Tap-Id

This AVP holds the Tap ID as provisioned by the DF.

Vendor ID 4491

VSA Type 231

AVP Type UTF8STRING

AVP Flag M

Tariff-Change-Usage

Defines whether units are used before or after a tariff change.

Vendor ID 0

VSA Type 452

AVP Type ENUM

Supported enumerated value(s):

0 UNIT_BEFORE_TARIFF_CHANGE

1 UNIT_AFTER_TARIFF_CHANGE

2 UNIT_INDETERMINATE

AVP Flag M

Tariff-Time-Change

It is sent from the server to the client and includes the time in seconds since January 1, 1900, 00:00 UTC, when the tariff of the service is changed.

Vendor ID 0

VSA Type 451

AVP Type TIME

AVP Flag M

Tariff-XML

Tariff-XML

Vendor ID 10415

VSA Type 2306

AVP Type UTF8STRING

AVP Flag M

Teleservice-List

This AVP contains the service codes for the short message related teleservice for a subscriber.

Vendor ID 10415

VSA Type 1486

AVP Type GROUPED

Supported group value(s):

[TS_CODE]

AVP Flag M

Terminal-Information

This AVP contains the information about the user's mobile equipment.

Vendor ID 10415

VSA Type 6002

AVP Type GROUPED

Supported group value(s):

[ESN]

[MEID]

[IMEI]

[SOFTWARE_VERSION]

AVP Flag M

Terminal-Type

This AVP contains a value of the User Class DHCP Option.

Vendor ID 13019

VSA Type 352

AVP Type OCTETSTRING

AVP Flag M

Terminate-Bearer

Terminate-Bearer

Vendor ID 10415

VSA Type 131161

AVP Type GROUPED

Supported group value(s):

[BEARER_IDENTIFIER]

AVP Flag M

Terminating-IOI

This AVP holds the Inter Operator Identifier for the originating network as generated by the S-CSCF in the home network of the terminating end user.

Vendor ID 0

VSA Type 840

AVP Type UTF8STRING

AVP Flag M

Termination-Cause

This AVP indicates the reason why a session was terminated on the access device.

Vendor ID 0

VSA Type 295

AVP Type ENUM

Supported enumerated value(s):

1 DIAMETER_LOGOUT

2 DIAMETER_SERVICE_NOT_PROVIDED

3 DIAMETER_BAD_ANSWER

4 DIAMETER_ADMINISTRATIVE

5 DIAMETER_LINK_BROKEN

6 DIAMETER_AUTH_EXPIRED

7 DIAMETER_USER_MOVED

8 DIAMETER_SESSION_TIMEOUT

AVP Flag M

Time-First-Usage

This AVP specifies the time in UTC format for the first IP packet to be transmitted and mapped to the current service data container.

Vendor ID 10415

VSA Type 2043

AVP Type TIME

AVP Flag M

Time-Last-Usage

This AVP specifies the time in UTC format for the last IP packet to be transmitted and mapped to the current service data container.

Vendor ID 10415

VSA Type 2044

AVP Type TIME

AVP Flag M

Time-Stamps

This grouped AVP holds the time of the initial SIP request and the time of the response to the initial SIP Request.

Vendor ID 0

VSA Type 833

AVP Type GROUPED

Supported group value(s):

[SIP_REQUEST_TIMESTAMP]

[SIP_RESPONSE_TIMESTAMP]

[SIP_REQUEST_TIMESTAMP_FRACTION]

[SIP_RESPONSE_TIMESTAMP_FRACTION]

AVP Flag M

Time-Threshold

Time-Threshold

Vendor ID 9

VSA Type 131081

AVP Type UINT32

AVP Flag N/A

Time-Usage

This AVP indicates the length of the current flow in seconds.

Vendor ID 10415

VSA Type 2045

AVP Type UINT32

AVP Flag M

To-SIP-Header

This AVP contains the information in the To header.

Vendor ID 10415

VSA Type 645

AVP Type OCTETSTRING

AVP Flag N/A

ToS-Traffic-Class

This AVP contains the Type-of-Service/Traffic-Class of a TFT packet filter.

Vendor ID 10415

VSA Type 1014

AVP Type OCTETSTRING

AVP Flag M

Trace-Collection-Entity

This AVP contains the IPv4 or IPv6 address of the Trace Collection Entity.

Vendor ID 10415

VSA Type 1452

AVP Type ADDRESS

AVP Flag M

Trace-Data

This AVP contains the information related to trace function.

Vendor ID 10415

VSA Type 1458

AVP Type GROUPED

Supported group value(s):

[TRACE_REFERENCE]

[TRACE_DEPTH_LIST]

[TRACE_NE_TYPE_LIST]

[TRACE_INTERFACE_LIST]

[TRACE_EVENT_LIST]

[OMC_ID]

[TRACE_COLLECTION_ENTITY]

AVP Flag M

Trace-Depth

This AVP indicates whether entire signaling messages or just some IEs need to be recorded.

Vendor ID 10415

VSA Type 1462

AVP Type ENUM

Supported enumerated value(s):

0 Minimum

1 Medium

2 Maximum

3 MinimumWithoutVendorSpecificExtension

4 MediumWithoutVendorSpecificExtension

5 MaximumWithoutVendorSpecificExtension

AVP Flag M

Trace-Depth-List

This AVP contains the list of Trade Depths per NE Type.

Vendor ID 10415

VSA Type 1460

AVP Type GROUPED

Supported group value(s):

[TRACE_DEPTH_PER_NE_TYPE]

AVP Flag M

Trace-Depth-Per-NE-Type

This AVP contains the Network-Element-Type that is involved in a session trace, and the corresponding depth of trace for the specified Network-Element-Type.

Vendor ID 10415

VSA Type 1451

AVP Type GROUPED

Supported group value(s):

[NETWORK_ELEMENT_TYPE]

[TRACE_DEPTH]

AVP Flag M

Trace-Event-List

Trace-Event-List

Vendor ID 10415

VSA Type 1465

AVP Type OCTETSTRING

AVP Flag M

Trace-Interface-List

Trace-Interface-List

Vendor ID 10415

VSA Type 1464

AVP Type OCTETSTRING

AVP Flag M

Trace-NE-Type-List

This AVP contains the concatenation of MCC MNC.

Vendor ID 10415

VSA Type 1463

AVP Type OCTETSTRING

AVP Flag M

Trace-Reference

This AVP contains the concatenation of MCC MNC.

Vendor ID 10415

VSA Type 1459

AVP Type OCTETSTRING

AVP Flag M

Tracking-Area-Identity

This AVP contains the tracking area identifier of the user.

Vendor ID 10415

VSA Type 1603

AVP Type OCTETSTRING

AVP Flag M

Traffic-Data-Volumes

This AVP is used to allow the transmission of the IPCAN bearer container on encountering change on charging condition for this IP-CAN bearer.The Rf interface supports AMBR reporting for non-guaranteed bit rate (non-GBR) bearers in a TDV AVP group.

Vendor ID 10415

VSA Type 2046

AVP Type GROUPED

Supported group value(s):

[QOS_INFORMATION]

[ACCOUNTING_INPUT_OCTETS]

[ACCOUNTING_INPUT_PACKETS]

[ACCOUNTING_OUTPUT_OCTETS]

[ACCOUNTING_OUTPUT_PACKETS]

[CHANGE_CONDITION]

[CHANGE_TIME]

[3GPP_USER_LOCATION_INFO]

AVP Flag M

Transcoder-Inserted-Indication

Transcoder-Inserted-Indication

Vendor ID 10415

VSA Type 2605

AVP Type ENUM

Supported enumerated value(s): none

AVP Flag M

Transport-Class

This AVP contains an integer used as an index pointing to a class of transport services to be applied.

Vendor ID 13019

VSA Type 311

AVP Type UINT32

AVP Flag N/A

Trunk-Group-ID

This grouped AVP identifies the incoming and outgoing PSTN legs.

Vendor ID 10415

VSA Type 851

AVP Type GROUPED

Supported group value(s):

[INCOMING_TRUNK_GROUP_ID]

[OUTGOING_TRUNK_GROUP_ID]

AVP Flag M

Tunnel-Assignment-Id

Used to indicate to the tunnel initiator the particular tunnel to which a session is to be assigned.

Vendor ID 0

VSA Type 82

AVP Type OCTETSTRING

AVP Flag M

Tunnel-Client-Auth-Id

Specifies the name used by the tunnel initiator during the authentication phase of tunnel establishment.

Vendor ID 0

VSA Type 90

AVP Type UTF8STRING

AVP Flag M

Tunnel-Client-Endpoint

This AVP contains the address of the initiator end of the tunnel.

Vendor ID 0

VSA Type 66

AVP Type UTF8STRING

AVP Flag M

Tunnel-Header-Filter

Tunnel-Header-Filter

Vendor ID 10415

VSA Type 1036

AVP Type IPFILTERRULE

AVP Flag M

Tunnel-Header-Length

This AVP indicates the length of the tunnel header in octets.

Vendor ID 10415

VSA Type 1037

AVP Type UINT32

AVP Flag M

Tunnel-Information

This AVP contains the tunnel (outer) header information from a single IP flow.

Vendor ID 10415

VSA Type 1038

AVP Type GROUPED

Supported group value(s):

[TUNNEL_HEADER_LENGTH]

[TUNNEL_HEADER_FILTER]

AVP Flag M

Tunnel-Medium-Type

This AVP contains the transport medium to use when creating a tunnel for protocols (such as L2TP) that can operate over multiple transports.

Vendor ID 0

VSA Type 65

AVP Type ENUM

Supported enumerated value(s):

1 IPv4_IPversion4

2 IPv6_IPversion6

3 NSAP

4 HDLC-8-bit_multidrop

5 BBN-1822

6 802-includes-all-802-media-plus-Ethernet-canonical_format

7 E163_POTS

8 E164_SMDS_Frame-Relay_ATM

9 F69_Telex

10 X121_X25_Frame-Relay

11 IPX

12 Appletalk

13 Decnet_IV

14 Banyan_Vines

15 E164-with-NSAP-format-subaddress

AVP Flag M

Tunnel-Password

This AVP contains a password to be used to authenticate to a remote server.

Vendor ID 0

VSA Type 69

AVP Type OCTETSTRING

AVP Flag M

Tunnel-Preference

Used to identify the relative preference assigned to each tunnel when more than one set of tunneling AVPs is returned within separate Grouped-AVPs.

Vendor ID 0

VSA Type 83

AVP Type UINT32

AVP Flag M

Tunnel-Private-Group-Id

This AVP contains the group ID for a particular tunneled session.

Vendor ID 0

VSA Type 81

AVP Type OCTETSTRING

AVP Flag M

Tunnel-Server-Auth-Id

This AVP contains the name used by the tunnel terminator during the authentication phase of tunnel establishment.

Vendor ID 0

VSA Type 91

AVP Type UTF8STRING

AVP Flag M

Tunnel-Server-Endpoint

This AVP contains the address of the server end of the tunnel.

Vendor ID 0

VSA Type 67

AVP Type UTF8STRING

AVP Flag M

Tunnel-Type

This AVP contains the tunneling protocol(s) to be used (in the case of a tunnel initiator) or in use (in the case of a tunnel terminator).

Vendor ID 0

VSA Type 64

AVP Type ENUM

Supported enumerated value(s):

1 Point-to-Point_Tunneling_Protocol-PPTP

2 Layer-Two-Forwarding_L2F

3 Layer-Two-Tunneling_Protocol-L2TP

4 Ascend-Tunnel-Management-Protocol-ATMP

5 Virtual-Tunneling-Protocol-VTP

6 IP-Authentication-Header-in-the-Tunnel-mode_AH

7 IP-in-IP_Encapsulation_IP-IP

8 Minimal_IP-in-IP_Encapsulation_MIN-IP-IP

9 IP_Encapsulating_Security_Payload_in_the_Tunnel-mode_ESP

10 Generic_Route_Encapsulation_GRE

11 Bay_Dial_Virtual_Services-DVS

12 IP-in-IP-Tunneling

13 Virtual-LANs-VLAN

AVP Flag M

Tunneling

Used to describe a compulsory tunnel service.

Vendor ID 0

VSA Type 401

AVP Type GROUPED

Supported group value(s):

[TUNNEL_TYPE]

[TUNNEL_MEDIUM_TYPE]

[TUNNEL_CLIENT_ENDPOINT]

[TUNNEL_SERVER_ENDPOINT]

[TUNNEL_PREFERENCE]

[TUNNEL_CLIENT_AUTH_ID]

[TUNNEL_SERVER_AUTH_ID]

[TUNNEL_ASSIGNMENT_ID]

[TUNNEL_PASSWORD]

[TUNNEL_PRIVATE_GROUP_ID]

AVP Flag M

UAR-Flags

This AVP contains a bit mask, if the bit 0 is set, it indicates that the request corresponds to an IMS Emergency Registration.

Vendor ID 0

VSA Type 637

AVP Type UINT32

AVP Flag M

UDP-Source-Port

This AVP contains the UDP source port number. This AVP is included on S2b interface if NAT is detected and UE Local IP Address is present for Fixed Broadband access network.

Vendor ID 10415

VSA Type 2806

AVP Type UINT32

AVP Flag N/A

UE-Count

UE-Count

Vendor ID 10415

VSA Type 4308

AVP Type UINT32

AVP Flag M

UE-Local-IP-Address

UE-Local-IP-Address

Vendor ID 10415

VSA Type 2805

AVP Type ADDRESS

AVP Flag N/A

UE-Reachability-Configuration

UE-Reachability-Configuration

Vendor ID 10415

VSA Type 3129

AVP Type GROUPED

Supported group value(s):

[REACHABILITY_TYPE]

[MAXIMUM_LATENCY]

[MAXIMUM_RESPONSE_TIME]

AVP Flag M

UE-SRVCC-Capability

UE-SRVCC-Capability

Vendor ID 10415

VSA Type 1615

AVP Type ENUM

Supported enumerated value(s):

0 UE-SRVCC-NOT-SUPPORTED

1 UE-SRVCC-SUPPORTED

AVP Flag M

UE-Usage-Type

This AVP is a subscription information parameter that is stored in the HSS, used by the serving network to select the Dedicated Core Network (DCN) that must serve the UE. Multiple UE Usage Types can be served by the same DCN.

Note A single UE subscription can be associated only with a single UE Usage Type, which describes its characteristics and functions.

Vendor ID 10415

VSA Type 1680

AVP Type UINT32

AVP Flag M

ULA-Flags

The ULR-Flags AVP is of type Unsigned32 and it contains a bit mask.

Vendor ID 10415

VSA Type 6007

AVP Type UINT32

AVP Flag M

ULR-Flags

The ULR-Flags AVP is of type Unsigned32 and it contains a bit mask.

Vendor ID 10415

VSA Type 6006

AVP Type UINT32

AVP Flag M

UMTS-Vector

This AVP contains Authentication Information for UMTS.

Vendor ID 10415

VSA Type 6018

AVP Type GROUPED

Supported group value(s):

[ITEM_NUMBER]

[RAND]

[XRES]

[AUTN]

[CONFIDENTIALITY_KEY]

[INTEGRITY_KEY]

AVP Flag M

UTRAN-Vector

This AVP contains Authentication Information for UTRAN.

Vendor ID 10415

VSA Type 1415

AVP Type GROUPED

Supported group value(s):

[ITEM_NUMBER]

[RAND]

[XRES]

[AUTN]

[CONFIDENTIALITY_KEY]

[INTEGRITY_KEY]

AVP Flag M

UWAN-User-Location-Info

UWAN-User-Location-Info

Vendor ID 10415

VSA Type 3918

AVP Type GROUPED

Supported group value(s):

[UE_LOCAL_IP_ADDRESS]

[UDP_SOURCE_PORT]

[SSID]

[BSSID]

AVP Flag M

Unit-Value

This AVP contains cost estimate (type of money) of the service.

Vendor ID 0

VSA Type 445

AVP Type GROUPED

Supported group value(s):

[VALUE_DIGITS]

[EXPONENT]

AVP Flag M

Uplink-Rate-Limit

Uplink-Rate-Limit

Vendor ID 10415

VSA Type 4311

AVP Type UINT32

AVP Flag M

Usage-Monitoring-Information

This AVP contains the usage monitoring control information.

Vendor ID 10415

VSA Type 1067

AVP Type GROUPED

Supported group value(s):

[MONITORING_KEY]

[GRANTED_SERVICE_UNIT]

[USED_SERVICE_UNIT]

[USAGE_MONITORING_LEVEL]

[USAGE_MONITORING_REPORT]

[USAGE_MONITORING_SUPPORT]

AVP Flag N/A

Usage-Monitoring-Level

This AVP is used by the PCRF to indicate whether the usage monitoring instance applies to the IP-CAN session or to one or more PCC rules.

Vendor ID 10415

VSA Type 1068

AVP Type ENUM

Supported enumerated value(s):

0 SESSION_LEVEL

1 PCC_RULE_LEVEL

AVP Flag N/A

Usage-Monitoring-Report

This AVP is used by the PCRF to indicate that accumulated usage is to be reported by the PCEF regardless of whether a usage threshold is reached for certain usage monitoring key.

Vendor ID 10415

VSA Type 1069

AVP Type ENUM

Supported enumerated value(s):

0 USAGE_MONITORING_REPORT_REQUIRED

AVP Flag N/A

Usage-Monitoring-Support

This AVP is used by the PCRF to indicate whether usage monitoring should be disabled for certain Monitoring Key.

Vendor ID 10415

VSA Type 1070

AVP Type ENUM

Supported enumerated value(s):

0 USAGE_MONITORING_DISABLED

AVP Flag N/A

Used-Service-Unit

The used service unit measured from the point when service is active.

Vendor ID 0

VSA Type 446

AVP Type GROUPED

Supported group value(s):

[TARIFF_TIME_CHANGE]

[TARIFF_CHANGE_USAGE]

[CC_TIME]

[CC_MONEY]

[CC_TOTAL_OCTETS]

[CC_INPUT_OCTETS]

[CC_OUTPUT_OCTETS]

[CC_SERVICE_SPECIFIC_UNITS]

AVP Flag M

User-Authorization-Type

This AVP contains the type of user authorization being performed in a User Authorization operation.

Vendor ID 10415

VSA Type 623

AVP Type ENUM

Supported enumerated value(s):

0 REGISTRATION

1 DE_REGISTRATION

2 REGISTRATION_AND_CAPABILITIES

AVP Flag M

User-CSG-Information

User-CSG-Information

Vendor ID 10415

VSA Type 2319

AVP Type GROUPED

Supported group value(s):

[CSG_ID]

[CSG_ACCESS_MODE]

[CSG_MEMBERSHIP_INDICATION]

AVP Flag M

User-Data

This AVP contains the user data requested in the PUR and SNR operations and the data to be modified in the UPR operations.

Vendor ID 0

VSA Type 702

AVP Type OCTETSTRING

AVP Flag M

User-Data-Already-Available

This AVP indicates whether S-CSCF is already storing the user data or not.

Vendor ID 10415

VSA Type 624

AVP Type ENUM

Supported enumerated value(s):

0 USER_DATA_NOT_AVAILABLE

1 USER_DATA_ALREADY_AVAILABLE

AVP Flag M

User-Default

User-Default

Vendor ID 9

VSA Type 131200

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

User-Equipment-Info

This AVP indicates the identification and capabilities of the terminal.

Vendor ID 0

VSA Type 458

AVP Type GROUPED

Supported group value(s):

[USER_EQUIPMENT_INFO_TYPE]

[USER_EQUIPMENT_INFO_VALUE]

AVP Flag M

User-Equipment-Info-Type

Defines the type of information present in User-Equipment-Info-Value AVP.

Vendor ID 0

VSA Type 459

AVP Type ENUM

Supported enumerated value(s):

0 IMEISV

1 MAC

2 EUI64

3 MODIFIED_EUI64

4 ESN

5 MEID

AVP Flag M

User-Equipment-Info-Value

Defines the type of identifier used.

Vendor ID 0

VSA Type 460

AVP Type OCTETSTRING

AVP Flag M

User-Id

User-Id

Vendor ID 10415

VSA Type 1444

AVP Type UTF8STRING

AVP Flag M

User-Identifier

User-Identifier

Vendor ID 10415

VSA Type 3102

AVP Type GROUPED

Supported group value(s):

[USER_NAME]

AVP Flag M

User-Identity

This grouped AVP contains either a Public-Identity AVP or an MSISDN AVP.

Vendor ID 10415

VSA Type 700

AVP Type GROUPED

Supported group value(s):

[PUBLIC_IDENTITY]

[MSISDN]

AVP Flag M

User-Idle-Pod

User-Idle-Pod

Vendor ID 9

VSA Type 131234

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

User-Idle-Timer

User-Idle-Timer

Vendor ID 9

VSA Type 131119

AVP Type UINT32

AVP Flag N/A

User-Location-Info-Time

User-Location-Info-Time

Vendor ID 10415

VSA Type 2812

AVP Type UINT32

AVP Flag N/A

User-Name

This AVP contains identification of the service user in a format consistent with the Network Access Identifier (NAI) specification.

Vendor ID 0

VSA Type 1

AVP Type UTF8STRING

AVP Flag M

User-Password

This AVP indicates PAP for multiauth in PDG.

Vendor ID 0

VSA Type 2

AVP Type OCTETSTRING

AVP Flag M

User-Session-Id

This AVP holds the session identifier.

Vendor ID 10415

VSA Type 830

AVP Type UTF8STRING

AVP Flag M

User-State

User-State

Vendor ID 10415

VSA Type 1499

AVP Type ENUM

Supported enumerated value(s):

0 DETACHED

1 ATTACHED_NOT_REACHABLE_FOR_PAGING

2 ATTACHED_REACHABLE_FOR_PAGING

3 CONNECTED_NOT_REACHABLE_FOR_PAGING

4 CONNECTED_REACHABLE_FOR_PAGING

5 NETWORK_DETERMINED_NOT_REACHABLE

AVP Flag M

V4-Transport-Address

This AVP contains a single IPv4 address and a single port number.

Vendor ID 13019

VSA Type 454

AVP Type GROUPED

Supported group value(s):

[FRAMED_IP_ADDRESS]

[PORT_NUMBER]

AVP Flag N/A

V6-Transport-Address

This AVP contains a single IPv6 address and a single port number.

Vendor ID 13019

VSA Type 453

AVP Type GROUPED

Supported group value(s):

[FRAMED_IPV6_PREFIX]

[PORT_NUMBER]

AVP Flag N/A

VLAN-Id

VLAN-Id

Vendor ID 9

VSA Type 131154

AVP Type UINT32

AVP Flag N/A

VPLMN-Dynamic-Address-Allowed

This AVP indicates whether for this APN, the UE is allowed to use the PDN GW in the domain of the HPLMN only, or additionally, the PDN GW in the domain of the VPLMN.

Vendor ID 10415

VSA Type 1432

AVP Type ENUM

Supported enumerated value(s):

0 NOTALLOWED

1 ALLOWED

AVP Flag M

VRF-Name

VRF-Name

Vendor ID 9

VSA Type 131153

AVP Type OCTETSTRING

AVP Flag M

Validity-Time

Validity time of the granted service units. Measurement starts upon receipt of the Credit-Control-Answer Message containing this AVP.

Vendor ID 0

VSA Type 448

AVP Type UINT32

AVP Flag M

Value-Digits

This AVP contains the significant digits of the number. If decimal values are needed to present the units, the scaling MUST be indicated with the related Exponent AVP.

Vendor ID 0

VSA Type 447

AVP Type INT64

AVP Flag M

Velocity-Estimate

This attribute is composed of 4 or more octets with an internal structure defined according to 3GPP TS 23.032.

Vendor ID 10415

VSA Type 2515

AVP Type OCTETSTRING

AVP Flag M

Velocity-Requested

Velocity-Requested

Vendor ID 10415

VSA Type 2508

AVP Type ENUM

Supported enumerated value(s):

0 VELOCITY_IS_NOT_REQUESTED

1 VELOCITY_IS_REQUESTED

AVP Flag M

Vendor-Id

Unique Identifier of the Vendor and contains the IANA "SMI Network Management Private Enterprise Codes" value assigned to the vendor of the Diameter application.

Vendor ID 0

VSA Type 266

AVP Type UINT32

AVP Flag M

Vendor-Id-Resp

Unique identifier of the vendor.

Vendor ID 10415

VSA Type 266

AVP Type UINT32

AVP Flag N/A

Vendor-Specific-Application-Id

Specifies the Vendor Specific Application ID and is used to advertise support of a vendor-specific Diameter Application.

Vendor ID 0

VSA Type 260

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[AUTH_APPLICATION_ID]

[ACCT_APPLICATION_ID]

AVP Flag M

Vendor-Specific-QoS-Profile-Template

This AVP defines the namespace of the QoS profile (indicated in the Vendor-ID AVP) followed by the specific value for the profile.

Vendor ID 0

VSA Type 6064

AVP Type GROUPED

Supported group value(s):

[VENDOR_ID]

[QOS_PROFILE_TEMPLATE]

AVP Flag M

Verify

Verify

Vendor ID 9

VSA Type 131116

AVP Type GROUPED

Supported group value(s):

[CONFIRM_TOKEN]

AVP Flag M

Vertical-Accuracy

This AVP is of type Unsigned32. Bits 6-0 correspond to Uncertainty Code defined in 3GPP TS 23.032. The vertical location error should be less than the error indicated by the uncertainty code with 67% confidence. Bits 7 to 31 are ignored.

Vendor ID 10415

VSA Type 2506

AVP Type ENUM

Supported enumerated value(s):

1 VERTICAL_COORDINATE_IS_REQUESTED

AVP Flag M

Vertical-Requested

Vertical-Requested

Vendor ID 10415

VSA Type 2507

AVP Type ENUM

Supported enumerated value(s):

1 VERTICAL_COORDINATE_IS_REQUESTED

AVP Flag M

Virtual-Online

Virtual-Online

Vendor ID 9

VSA Type 131210

AVP Type ENUM

Supported enumerated value(s):

0 DISABLED

1 ENABLED

AVP Flag M

Visited-Network-Identifier

This AVP contains an identifier that helps the home network to identify the visited network (for example, the visited network domain name).

Vendor ID 10415

VSA Type 600

AVP Type OCTETSTRING

AVP Flag M

Visited-PLMN-Id

This AVP contains the concatenation of MCC and MNC.

Vendor ID 10415

VSA Type 6008

AVP Type UTF8STRING

AVP Flag M

Volume-Threshold

Volume-Threshold

Vendor ID 9

VSA Type 131080

AVP Type UINT32

AVP Flag N/A

Volume-Threshold-64

Volume-Threshold-64

Vendor ID 9

VSA Type 131258

AVP Type UINT32

AVP Flag N/A

WLAN-Session-Id

This AVP contains the WLAN Session ID that is used to correlate PDG and WLAN AN charging data.

Vendor ID 0

VSA Type 11009

AVP Type UINT32

AVP Flag M

Weight

Weight

Vendor ID 9

VSA Type 131118

AVP Type UINT32

AVP Flag N/A

WiMAX-A-PCEF-Address

This AVP indicates the IP address of the A-PCEF to the PDF.

Vendor ID 24757

VSA Type 411

AVP Type ADDRESS

AVP Flag M

WiMAX-PCC-R3-P-Capability

This AVP contains in a CCR message the WiMAX capabilities supported by the ASN. In a CCA it identifies the options selected by the PCRF.

Vendor ID 24757

VSA Type 404

AVP Type GROUPED

Supported group value(s):

[WIMAX_RELEASE]

[ACCOUNTING_PCC_R3_P_CAPABILITY]

AVP Flag M

WiMAX-QoS-Information

This AVP contains the WiMAX QoS information for ASN GW.

Vendor ID 24757

VSA Type 407

AVP Type GROUPED

Supported group value(s):

[QOS_CLASS_IDENTIFIER]

[MAX_REQUESTED_BANDWIDTH_UL]

[MAX_REQUESTED_BANDWIDTH_DL]

[GUARANTEED_BITRATE_UL]

[GUARANTEED_BITRATE_DL]

[PACKET_INTERVAL]

[PACKET_SIZE]

AVP Flag M

WiMAX-Release

This AVP indicates a WiMAX release formatted as major/minor.

Vendor ID 24757

VSA Type 301

AVP Type OCTETSTRING

AVP Flag M

Wildcarded-IMPU

This AVP contains a wild-carded Public User Identity stored in the HSS.

Vendor ID 10415

VSA Type 636

AVP Type UTF8STRING

AVP Flag N/A

Wildcarded-PSI

This AVP contains a wild-carded PSI stored in the HSS.

Vendor ID 10415

VSA Type 634

AVP Type UTF8STRING

AVP Flag M

Wildcarded-Public-Identity

This AVP contains a Wildcarded PSI or Wildcarded Public User Identity stored in the HSS.

Vendor ID 10415

VSA Type 634

AVP Type UTF8STRING

AVP Flag N/A

XRES

This AVP contains the XRES (Expected Response USIM).

Vendor ID 10415

VSA Type 1448

AVP Type OCTETSTRING

AVP Flag M