CableLabs® Specifications

CableLabs' Assigned Names and Numbers

CL-SP-CANN-I01-070119

ISSUED

Document Status Sheet

Document Control Number:	CL-SP-CANN-I01-070119			
Document Title:	CableLabs' Assigned Names and Numbers			
Revision History:	I01 – Released 1/19/07			
Date:	January 19, 2007			
Status:	~~Work in Progress~~	~~Draft~~	Issued	~~Closed~~
Distribution Restrictions:	~~Author Only~~	~~CL/Member~~	~~CL/ Member/ Vendor~~	Public

Key to Document Status Codes:

Work in Progress	An incomplete document, designed to guide discussion and generate feedback, that may include several alternative requirements for consideration.
Draft	A document in specification format considered largely complete, but lacking review by Members and vendors. Drafts are susceptible to substantial change during the review process.
Issued	A stable document, which has undergone rigorous member and vendor review and is suitable for product design and development, cross-vendor interoperability, and for certification testing.
Closed	A static document, reviewed, tested, validated, and closed to further engineering change requests to the specification through CableLabs.

Trademarks:

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1 SCOPE

This specification establishes a set of CableLabs registries and namespaces for Names and Numbers authoritatively assigned by CableLabs.

Numerous protocol fields make use of identifiers with well-known names or number values, for example, the IETF DHCP protocol and vendor specific option values, the IETF RADIUS and DIAMETER protocols and associated CableLabs attributes, etc. To insure that such quantities have consistent values and interpretations in different implementations, their assignment must be administered by a central authority. For IETF protocols, that role is provided by the Internet Assigned Numbers Authority (IANA). For vendor-specific protocol fields that are defined by CableLabs specifications, or when the use of such protocol identifiers may be common to multiple CableLabs projects and specifications, this document defines a common repository to hold these values.

This document borrows some of the terminology and guidelines of IETF RFC 2434 [RFC 2434].

The scope of this version of this specification includes:

- A DHCP registry for protocol fields authoritatively assigned by CableLabs that are in use in eDOCSIS, DOCSIS, CableHome, PacketCable, and OpenCable, for both IPv4 and DHCPv6.
- An XML registry for XML namespaces for DOCSIS and PacketCable.
- A DIAMETER registry for PacketCable.
- A Receive Channel Profile (RCP) registry for CableLabs-defined Standard-RCPs and Vendor-defined Manufacturer-RCPs that are used in DOCSIS 3.0 and beyond to communicate the receiver capabilities of a cable modem.

1.1 Requirements

Throughout this document, the words that are used to define the significance of particular requirements are capitalized. These words are:

"MUST"	This word or the adjective "REQUIRED" means that the item is an absolute requirement of this specification.
"MUST NOT"	This phrase means that the item is an absolute prohibition of this specification.
"SHOULD"	This word or the adjective "RECOMMENDED" means that there may exist valid reasons in particular circumstances to ignore this item, but the full implications should be understood and the case carefully weighed before choosing a different course.
"SHOULD NOT"	This phrase means that there may exist valid reasons in particular circumstances when the listed behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
"MAY"	This word or the adjective "OPTIONAL" means that this item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because it enhances the product, for example; another vendor may omit the same item.

2 REFERENCES

2.1 Normative References

None.

2.2 Informative References

This specification uses the following informative references.

[CANN DHCP]	CableLabs' DHCP Options Registry, CL-SP-CANN-DHCP-Reg-I01-070119, January 19, 2007, Cable Television Laboratories, Inc.
[IANA EN]	IANA's Enterprise-Numbers: http://www.iana.org/assignments/enterprise-numbers
[IANA AAA]	IANA's AAA parameters register: ftp://ftp.iana.org/assignments/aaa-parameters/
[MULPI]	DOCSIS 3.0 MAC and Upper Layer Protocols Interface Specification, CM-SP-MULPIv3.0-I02-061222, December 22, 2006, Cable Television Laboratories, Inc.
[OSSI]	Operations Support System Interface Specification, SP-OSSI-C01-011119, November 19, 2001, Cable Television Laboratories, Inc.
[OSSI1.1]	Operations Support System Interface Specification, CM-SP-OSSIv1.1-C01-050907, September 7, 2005.
[OSSIv2.0]	Data-Over-Cable Service Interface Specifications, Operations Support System Interface Specification, CM-SP-OSSIv2.0-I09-050812, August 12, 2005, Cable Television Laboratories Inc.
[OSSIv3.0]	DOCSIS 3.0 Operations Support System Interface Specification, CM-SP-OSSIv3.0-I01-061207, December 7, 2006, Cable Television Laboratories, Inc.
[PKT 29.109]	PacketCable Generic Authentication Architecture (GAA); Zh and Zn Interfaces Specification 3GPP TS 29.109, PKT-SP-29.109-I01-060914, September 14, 2006, Cable Television Laboratories, Inc.
[PKT ACCT]	PacketCable Accounting Specification, PKT-SP-ACCT-I02-061013, October 13, 2006, Cable Television Laboratories, Inc.
[PKT ES-INF]	PacketCable Electronic Surveillance - Intra-Network Functions Specification, PKT-SP-ES-INF-I02-061013, October 13, 2006, Cable Television Laboratories, Inc.
[PKT PROV]	PacketCable MTA Device Provisioning Specification, PKT-SP-PROV-I11-050812, August 12, 2005, Cable Television Laboratories, Inc.
[PKT PROV1.5]	PacketCable 1.5 MTA Device Provisioning Specification, PKT-SP-PROV1.5-I02-050812, August 12, 2005, Cable Television Laboratories, Inc.
[PKT RST-ACCT]	PacketCable Residential SIP Telephony Accounting Specification, PKT-SP-RST-ACCT-I01-060927, September 27, 2006, Cable Television Laboratories, Inc.

[RFC 2434] IETF RFC 2434/BCP0026, Guidelines for Writing an IANA Considerations Section in RFCs, October 1998.

[RFC 2617] IETF RFC 2617, "HTTP Authentication: Basic and Digest Access Authentication", June 1999.

[RFC 3261] IETF RFC 3261, "SIP: Session Initiation Protocol", June 2002.

[RFC 3315] IETF RFC 3315, Dynamic Host Configuration Protocol for IPv6 (DHCPv6), July 2003.

[RFC 3495] IETF RFC 3495, Dynamic Host Configuration Protocol (DHCP) Option for CableLabs Client Configuration, March 2003.

[RFC 3588] IETF RFC 3588, Diameter Base Protocol, September 2003.

[RFC 3634] IETF RFC 3634, Key Distribution Center (KDC) Server Address Sub-option for the Dynamic Host Configuration Protocol (DHCP) CableLabs Client Configuration (CCC) Option, December 2003.

2.3 Reference Acquisition

- Cable Television Laboratories, Inc., 858 Coal Creek Circle, Louisville, CO 80027;
  Phone +1-303-661-9100; Fax +1-303-661-9199, http:// www.cablelabs.com.
- Internet Engineering Task Force (IETF) Secretariat,46000 Center Oak Plaza, Sterling, VA 20166, Phone +1-571-434-3500, Fax +1-571-434-3535, http://www.ietf.org.
- Internet Assigned Numbers Authority (IANA), http://www.iana.org.

3 ABBREVIATIONS

This document uses the following abbreviations and acronyms.

AVP	Attribute-Value Pairs
DHCP	Dynamic Host Configuration Protocol
RCC	Receive Channel Configurations
RCP	Receive Channel Profile
URL	Uniform Resource Locator
XML	Extensible Markup Language

4 CABLELABS DHCP PROTOCOL FIELD REGISTRY

4.1 Definition

This document establishes the CableLabs DHCP registry and defines new name spaces associated with CableLabs DHCPv4 and DHCPv6 options:

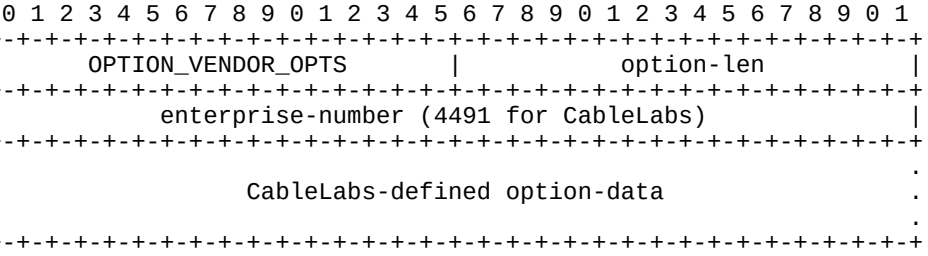
- CableLabs project codes,
- Sub-option codes for DHCPv4 options,
- CableLabs Vendor-specific Information Option codes for DHCPv6.

The CableLabs Assigned Name and Number authority has established a registry of values for each of these name spaces which are found in [CANN DHCP].

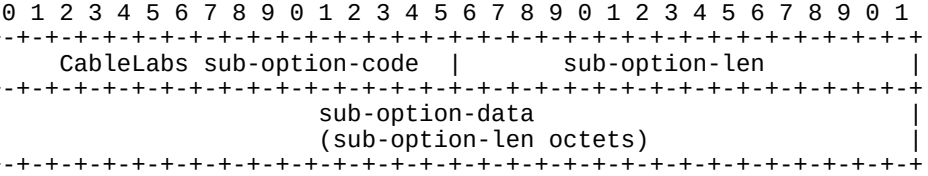
4.2 Format of the DHCPv6 CableLabs Vendor-specific Information Option

DHCPv6 defines a Vendor-specific Information Option (see the option code OPTION_VENDOR_OPTS in section 22.17 of [RFC 3315]). This section defines the structure or format of the option data for the CableLabs Vendor-specific Information Option.

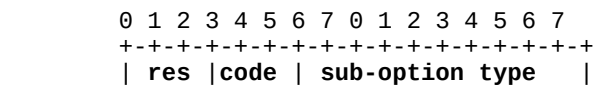
The format of the DHCPv6 CableLabs Vendor-specific Information option is:




```
option-code          OPTION_VENDOR_OPTS (17)

option-len           4 + length of option-data field

enterprise-number    The CableLabs' registered Enterprise Number:
                     4491, as registered with IANA in the Private
                     Enterprise Numbers:
                     http://www.iana.org/assignments/enterprise-numbers.html

CableLabs-defined
option-data          An object containing one or more
                     CableLabs sub-options

                     The option-data field of the DHCPv6 CableLabs Vendor-
                     specific Information option contains sub-option values. Each
                     sub-option is structured as follows:
```



CableLabs sub-option-code:



res: reserved for CableLabs, do not use; bits must be zero value.
code: identifies the CableLabs project code for this sub-option. The null value for these 3 bits ('000') identifies a generic DHCPv6 option that may be common to multiple projects. See the Values for the CableLabs Project Codes section of the CableLabs DHCP registry specification for the values of the CableLabs Project Codes for DHCPv6 options.
sub-option type: defines the option type.

sub-option-len — length of sub-option-data field

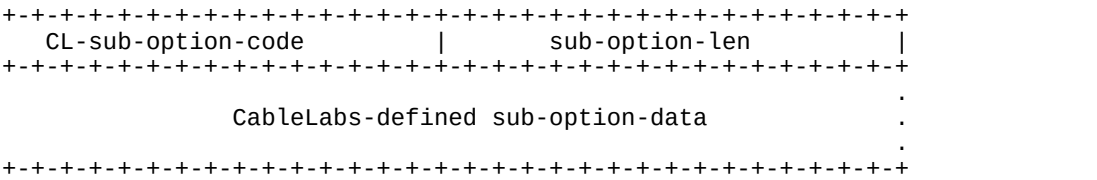
sub-option-data — the value of the CableLabs sub-option.

4.3 Template for defining new DHCPv6 CableLabs Vendor-specific Information Option codes

Each request for a new definition of a DHCPv6 CableLabs Vendor-specific Information Option must include:

- A definition of the sub-option compliant with the format specified in this section.
- An Engineering Change Request against the CableLabs DHCP registry requesting the addition of the new option.

New DHCPv6 CableLabs Vendor-specific Information Option code must be defined using the following format:



CL-sub-option-code — CL_OPTION_xxxxxxxx where xxxxxxxx is descriptive name of the sub-option being defined.

Sub-option-len — length of sub-option-data field

CableLabs-defined Sub-option-data — An object definition with normative requirements on how a DHCP client and server must use this information.

CableLabs Project — The requested CableLabs Project under which this new option should be assigned (a registered CableLabs Project code).

4.4 List of relevant Specifications

The following list includes CableLabs and IETF specifications that contain definitions of DHCP option field values, or, references to the values defined in this document.

- CableLabs DHCP registry [CANN DHCP]
- DOCSIS OSSI specifications for DOCSIS 1.0 [OSSI], DOCSIS 1.1 [OSSI1.1], DOCSIS 2.0 [OSSIv2.0]
- DOCSIS 3.0 MULPI [MULPI], OSSI [OSSIv3.0]
- PacketCable MTA Device Provisioning specifications version 1.0 [PKT PROV] and 1.5 [PKT PROV1.5]
- IETF [RFC 3495] and [RFC 3634]

5 CABLELABS XML REGISTRY

5.1 Guidelines

The goal of this section is to provide guidelines for the definition of new XML namespaces under CableLabs management and some recommendations to align the target namespaces and to allow consistent versioning.

It is RECOMMENDED to define CableLabs XML namespaces as follows:

Organization Identifier	Identifier	CableLabs Project Name	Version	Type of Document	Identifier	XSD Identifier
For CableLabs: www.cablelabs.com	namespaces	PacketCable| DOCSIS| CableHome	2.03.0	'DTD'| 'XSD'	'smi'| 'reg'| 'ipdr'| 'netconf'	e.g., CLAB-PACM-MIB

5.2 Examples

A few examples include:

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/

http://www.cablelabs.com/namespaces/PacketCable/2.0/xsd/smi/

5.3 Registered XML name spaces

The following name spaces are registered.

5.3.1 DOCSIS

5.3.1.1 DOCSIS IPDR Service Definition Namespaces

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-SAMIS-TYPE-1

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-SAMIS-TYPE-2

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS-CM-US-STATS-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS-CM-REG-STATUS-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS-TOPOLOGY-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-SPECTRUM-MEASUREMENT-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CPE-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-DIAG-LOG-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-DIAG-LOG-EVENT-TYPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-DIAG-LOG-DETAIL-TYPE

5.3.1.2 DOCSIS Auxiliary Schema Namespaces

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CM

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CPE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-QOS

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-REC

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS-CM-US

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-CMTS-CM-NODE-CH

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-MD-NODE

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-SPECTRUM

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-DIAG-LOG

http://www.cablelabs.com/namespaces/DOCSIS/3.0/xsd/ipdr/DOCSIS-DIAG-LOG-DETAIL

5.3.2 PacketCable

5.3.2.1 PacketCable 2.0 PACM namespaces

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/SMI/v1/CL-PKTC-UE

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/SMI/v1/CL-PKTC-User

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/SMI/v1/CL-PKTC-TC

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/v1/CL-PKTC-ACL

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/v1/CL-PKTC-BASE-SVC

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/SMI/v1/CL-PKTC-RST

5.3.2.2 PacketCable 2.0 Auxiliary namespaces

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/CLAB-DEF-MIB

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/SNMP-FRAMEWORK-MIB

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/SNMPv2-TC

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/SMI

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/SNMPv2-SMI

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/INET-ADDRESS-MIB

http://www.cablelabs.com/namespaces/PacketCable/R2/XSD/smi/SNMPv2-CONF

6 CABLELABS DIAMETER AVP REGISTRY

This section lists any IANA assigned CableLabs specific DIAMETER applications and Command Codes as well as CableLabs assigned DIAMETER protocol codes, including the Attribute-Value Pairs (AVP) and Experimental result codes.

For assignment of DIAMETER applications, command codes, AVP and result codes, please see the procedures in Section 6.6.

6.1 Application Identifiers

The Diameter applications are identified with the application identifiers as specified in [RFC 3588]. There are two kinds of applications: IETF standards track applications and vendor specific applications. All application identifiers are assigned by IANA [IANA AAA]. This chapter lists the application identifiers assigned by IANA to all CableLabs Diameter applications.

The application identifiers are transferred in Diameter command's header in the Application-ID field.

6.1.1 CableLabs Specific Application Identifiers

There are no CableLabs specific application identifiers at this time.

6.2 Command Codes

The command codes are used for communicating the command associated with the Diameter message. The command code is carried in the Diameter header's Command-Code field. The command codes can be divided into standard command codes allocated by IANA and experimental command codes for testing purposes only.

6.2.1 Command Codes Allocated for CableLabs

There are no CableLabs specific command codes at this time.

6.3 Vendor Identifier

The vendor identifier (also known as Enterprise number) indicates the vendor specific attributes, result codes and application identifiers in Diameter commands. The vendor identifier is used in the Vendor-ID field of the AVP header and in the Vendor-Id AVP. The Vendor-Id AVP is used to identify the vendor in the Vendor-Specific-Application-Id and Experimental-Result-Code grouped AVPs.

6.3.1 CableLab's Vendor Identifier

The IANA has allocated a vendor identifier value 4491 for CableLabs [IANA EN].

6.4 Attribute-Value-Pair Codes

The AVP codes are used together with the vendor identifier to identify each attribute uniquely. There are multiple AVP namespaces. The IETF IANA namespace, that is, the AVPs with vendor identifier zero or without vendor identifier, is controlled by IANA. Each vendor controls the AVP codes within their AVP namespaces.

6.4.1 CableLabs Specific AVP Codes

The CableLabs specific AVPs have the Vendor-Specific bit ('V' bit) set in the AVP header and they carry the CableLabs's vendor identifier in the Vendor-ID field of the AVP header. The CableLabs specific AVP codes are presented in the following table.

Table 1 - CableLabs specific AVP Codes

AVP Name	AVP Code	Specification Reference	Data Type	AVP Flag rules				
				Must	May	Should not	Must not	May Encr.
BCID	200	[PKT ES-INF]	UTF8String	V, M	P			N
Call-Transfer	201	[PKT RST-ACCT]	Group	V, M	P			N
Correlate-Reason	202	[PKT ES-INF]	Enumerated	V, M	P			N
Dialog-Id	203	[PKT ES-INF]	UTF8String	V, M	P			N
Digest-Algorithm	204	[PKT 29.109]	UTF8String	V, M				N
Digest-Auth-Param	205	[PKT 29.109]	OctetString	V, M				N
Digest-Domain	206	[PKT 29.109]	UTF8String	V, M				N
Digest-HA1	207	[PKT 29.109]	OctetString	V, M				N
Digest-QoP	208	[PKT 29.109]	UTF8String	V, M				N
Digest-Realm	209	[PKT 29.109]	UTF8String	V, M				N
Direction	210	[PKT ES-INF]	Enumerated	V, M	P			N
Direct-Message	211	[PKT ES-INF]	Enumerated	V, M	P			N
Element-ID	212	[PKT ES-INF]	UTF8String	V, M	P			N
Element-Type	213	[PKT ES-INF]	Enumerated	V, M	P			N
Event-Message-Type	214	[PKT ES-INF]	Enumerated	V, M	P			N
Location-Routing- Number	215	[PKT ACCT]	UTF8String	V, M	P			N
LRN-Source-Indicator	216	[PKT ACCT]	Integer32	V, M	P			N
LRN-Query-Status	217	[PKT ACCT]	Integer32	V, M	P			N
LI-Information	218	[PKT ES-INF]	Grouped	V, M	P			N
New-Dialog-Id	219	[PKT ES-INF]	UTF8String	V, M	P			N
NP-Data	220	[PKT ACCT]	Grouped	V, M	P			N
PCMM-BCID	221	[PKT ACCT]	UTF8String	V, M	P			N
PCMM-Information	222	[PKT ACCT]	Grouped	V, M	P			N
Refer-To	223	[PKT RST-ACCT], [PKT ACCT]	UTF8String	V, M	P			N
RST-Information	224	[PKT RST-ACCT]	Grouped	V, M	P			N
RST-Subscriber-ID	225	[PKT RST-ACCT]	UTF8String	V, M	P			N
Server-Role	226	[PKT RST-ACCT]	Enumerated	V, M	P			N

AVP Name	AVP Code	Specification Reference	Data Type	AVP Flag rules				
				Must	May	Should not	Must not	May Encr.
Session-Type	227	[PKT RST-ACCT]	Enumerated	V, M	P			N
SIP-Digest-Authenticate	228	[PKT 29.109]	Grouped	V, M				N
SIP-Message	229	[PKT ES-INF]	OctetString	V, M	P			N
Target	230	[PKT RST-ACCT], [PKT ACCT]	UTF8String	V, M	P			N
Tap-Id	231	[PKT ES-INF]	UTF8String	V, M	P			N
Transfer-Session-Call-ID	232	[PKT RST-ACCT]	UTF8String	V, M	P			N

6.5 Experimental Result Codes

The Diameter answer messages must carry either Result-Code AVP or Experimental-Result AVP. The values of Result-Code AVP are controlled by IANA. The Experimental-Result AVP is a grouped AVP containing the Vendor-Id AVP and Experimental-Result-Code AVP, thus the experimental result codes are controlled in a vendor-specific manner.

6.5.1 CableLabs Specific Experimental Result Codes

There are no CableLabs specific result codes at this time.

6.6 Assignment of the Diameter Codes and Identifiers

6.6.1 Application Identifiers

If a specification determines it will require a new application identifier based on the rules defined in RFC 3588, a request for an application identifier should be sent to IANA. When the application identifier is received, an Engineering Change Request needs to be submitted against this document adding the newly assigned application identifier.

6.6.2 Command Codes

If a specification determines there is a need for a new command code(s) and no CableLabs allocated command code values are available, the procedures defined in [RFC 3588] need to be followed.

It should be noted that the standard command codes allocated for 3GPP are scarce resource and getting new ones would require IETF specification work to be done. Therefore it is recommended to use the existing command codes whenever possible.

Once a new command code is assigned, an Engineering Change Request should be submitted against this document adding the newly assigned command codes.

6.6.3 AVP Codes

If a specification determines a Diameter application needs new CableLabs specific AVP code(s), an Engineering Change Request needs to be submitted against this document adding the newly assigned AVP code value. AVP codes are available on a first come first serve bases and are assigned in numerical order. Skipping AVP code values is discouraged as is reserving blocks of AVP codes for further assignment. Given the possibly for multiple

Engineering Change Requests assigning AVP codes at the same time, conflicts may occur. As such, AVP code values are only guaranteed to be unique and allocated once the Engineering Change Request becomes and Engineering Change Notice. To ensure unique AVP code values, over site of the allocation process is required and the responsibility of the CableLabs employee currently responsible for this specification.

Re-using of the existing AVPs is recommended, but special attention should be paid on the use of enumerated AVPs. Defining new values for an enumerated AVP should be agreed case by case with the specification group responsible of the particular enumerated AVP.

6.6.4 Result Codes

If a specification determines a Diameter application needs new CableLabs specific result code(s), an Engineering Change Request needs to be submitted against this document adding the newly assigned result code value. Result codes are available on a first come first serve bases and are assigned in numerical order. Skipping result code values is discouraged as is reserving blocks of result codes for further assignment. Given the possibly for multiple Engineering Change Requests assigning result codes at the same time, conflicts may occur. As such, result code values are only guaranteed to be unique and allocated once the Engineering Change Request becomes and Engineering Change Notice. To ensure unique result code values, over site of the allocation process is required and the responsibility of the CableLabs employee currently responsible for this specification.

7 CABLELABS RCP REGISTRY

7.1 Definition

This document establishes a CableLabs Receive Channel Profile (RCP) registry. RCPs are used by DOCSIS 3.0 cable modems to advertise their receiver capabilities. RCPs can be "Standard RCPs" defined by CableLabs (and existing in the CableLabs RCP namespace) or "Manufacturer RCPs" defined by the Manufacturer of a cable modem or cable modem silicon (and existing in the Manufacturer's RCP namespace).

DOCSIS 3.0 Cable Modem Termination Systems (CMTSs) support the cable operator configuration of Receive Channel Configurations (RCCs) based on the deployed downstream channel lineup and the details of a CM's receiver capabilities as described in an RCP encoding. Each RCC in the CMTS is indexed by the RCP-ID of the RCP upon which it is based. The CM itself may only advertise the RCP-ID, which is then used by the CMTS to match the CM to an appropriate RCC at Registration time. This registry provides the detailed RCP encoding associated with each RCP-ID to allow proper configuration of RCCs by the cable operator.

7.2 Format

Two encoding formats are defined for an RCP. The first is an XML encoding defined in [OSSIv3.0], the second is a Type-Length-Value encoding defined in [MULPI]. The encoding format used for the CableLabs RCP registry is the XML format.

7.3 Defining new Receive Channel Profiles

Each request for a new entry in the CableLabs RCP registry must include the full XML encoding of the RCP, including an RCP-ID using either the CableLabs OUI (for a proposed new Standard RCP) or the Vendor's OUI (for a Manufacturer RCP), and an RCP Name.

Appendix I Acknowledgements

On behalf of CableLabs and its participating member companies, we would like to extend our thanks to all member and vendor participants who contributed to the development of the protocol fields registered in this specification. Key contributors to this document are recognized individually in each of the CableLabs project-specific specifications.

CableLabs Standards Department