

CableLabs®

Development Lab Use Policy

2010
Rev. 6

Cable Television Laboratories, Inc.
858 Coal Creek Circle
Louisville, CO 80027-9750

© 2005 - 2010 Cable Television Laboratories, Inc.

Table of Contents

1 OVERVIEW.....3

1.1 PURPOSE..... 3

1.2 CONFIDENTIALITY 4

1.3 SCHEDULING 4

1.4 INFORMATION SOURCES 4

1.5 INDEMNIFICATION; DISCLAIMER; LIMITATION OF LIABILITY 5

1.6 PREREQUISITES FOR LAB USE..... 6

1.7 DEVICE DELIVERY AND AVAILABILITY 6

1.8 FEES 6

 1.8.1 Basic Fee 6

 1.8.2 Fees for use of the Development Lab on non-business days..... 7

 1.8.3 Fees for use of the Development Lab after hours 7

 1.8.4 Additional Fees..... 7

 1.8.5 Cancellation Policy..... 7

1.9 LAB USE GUIDELINES..... 7

 1.9.1 Access 7

 1.9.2 Operation of Equipment..... 7

 1.9.3 Manufacturer Rules of Engagement 8

 1.9.4 Malicious Software 8

 1.9.5 Product Power Considerations..... 8

 1.9.6 Equipment Availability 8

1.10 FOLLOW-UP REQUIREMENTS 8

1.11 DEVELOPMENT LAB RESOURCES..... 8

2 PROJECT SPECIFIC INFORMATION10

2.1 MANUFACTURER OBLIGATIONS AND PREREQUISITES 10

2.2 PHILA OR DFAST TECHNOLOGY LICENSE AGREEMENT..... 10

2.3 DCAA (FOR PHILA) OR AGREEMENT FOR MANUFACTURER RECEIPT OF DIGITAL CERTIFICATES UNDER DFAST LICENSE 10

2.4 DFAST SECRETS AND DIGITAL CERTIFICATES 10

2.5 ACCESS TO HEADENDS AND CA SYSTEMS..... 10

3 DEVELOPMENT TO THE DOCSIS™ SPECIFICATIONS MANUFACTURER OBLIGATIONS.....11

 3.1.1 Number of Devices..... 11

 3.1.2 Access to other products..... 11

 3.1.3 Access to test platform and test tools..... 11

 3.1.4 Manufacturer-provided products and tools 11

3.2 SPECIAL INSTRUCTIONS..... 12

3.3 ORIENTATION 12

4 DEVELOPMENT TO PACKETCABLE™ SPECIFICATIONS13

4.1 MANUFACTURER OBLIGATIONS 13

 4.1.1 Number of Devices..... 13

 4.1.2 Access to other products..... 13

 4.1.3 Access to test platform and test tools..... 13

 4.1.4 Manufacturer-provided products and tools 13

4.2 PACKETCABLE “VENDOR PRODUCT OPERATING INSTRUCTIONS” 14

4.3 ORIENTATION 14

APPENDIX I MANUFACTURER MASTER AGREEMENT.....15

APPENDIX II MANUFACTURER REQUEST FOR LAB USE (P.1 OF 3).....16

1 OVERVIEW

1.1 Purpose

This CableLabs Development Lab Use Policy establishes the policies, terms, and conditions under which a Manufacturer participating in CableLabs projects developing products against CableLabs specifications may gain access to the CableLabs Development Lab and related facilities in order to advance the development of interoperable products and services for cable networks.

Manufacturers can take advantage of the Development Lab for several different purposes, depending upon the targeted project, some of which are as follows:

- **Pre-Certification Preparation:** Manufacturers may bring their products in for pre-certification preparation. CableLabs will provide some test equipment and test scripts for this purpose, based on the areas identified in Manufacturer's application. Manufacturers should note that use of the lab for a single week may not be enough time to execute the entire test suite, and that not all of the test equipment may be available for the entire suite of tests. Manufacturers should also note that this is not the equivalent of a practice run, and that test results obtained during pre-certification preparation do not guarantee that the Manufacturer will pass certification.
- **Implementation of New ECNs:** As the specifications change based on new requirements, test plans, engineering change notices (ECNs) to specifications, and scripts and, ultimately, the products may change to meet these new specifications. The Development Lab may be used to test implementations of specification changes. Tests may be performed manually (based on the ECN itself) until such time that a test execution plan (TEP) or acceptance test plan (ATP) is available for use.
- **Product Development:** Manufacturers may use the Development Lab for cable television product development.
- **Bug Identification and Troubleshooting:** Based on the type of issue and the nature of the troubleshooting testing, the Development Lab may be able to support such testing. If this testing requires access to other Manufacturers' products, CableLabs will provide previously certified and qualified products, subject to availability. Manufacturers must identify in their application any specific products they may wish to utilize during testing.
- **Multi-Manufacturer Interoperability Activities:** A Manufacturer may need to test and interoperate in a multi-Manufacturer environment. Such testing is sometimes necessary after certification testing for problem resolution, or with the development of new technology. CableLabs will provide previously certified and qualified products, subject to availability, for Manufacturer to interoperate. Manufacturers must identify in their application any specific products they may wish to utilize during testing.

Several important features and limitations of this Policy, and the testing hereunder, should be noted:

- CableLabs also provides regularly scheduled "practice runs" and certification testing for Manufacturers (as used in this document, the term "certification" shall also include "verification" testing of PnP devices and "qualification" testing of MSO-purchased cable network devices). CableLabs' support of such activities shall take priority over requests under this Policy. To see a schedule of such activities, please see <http://www.cablelabs.com>, and locate the CableLabs Project of interest. Information about practice runs and certification testing is available at <http://www.cablelabs.com/certqual/>.
- CableLabs will not conduct certification/verification testing for any product while that product is in the Development Lab.
- Use of the Development Lab does not include CableLabs direct assistance in conducting any tests, nor does it include any informal certification, compliance, or conformance testing.
- Some coordination may be requested in advance as some test gear may require prior notification.

- The Development Lab can be configured to allow access to different network elements throughout the test facility.
- Use of the Development Lab is provided on a fair, competitively neutral, as-available basis in a non-discriminatory manner. Additionally, CableLabs will not permit any use of the Development Lab that interferes with ongoing CableLabs activities. A Manufacturer's use of the Development Lab must be compatible with CableLabs activities.
- Use of the Development Lab is not a prerequisite for a product's becoming certified, nor is it a replacement for certification testing. Use of the Development Lab does not guarantee that a product will become certified. Development Lab events are scheduled for the benefit of product maturity only and will not result in Certification Board decisions.
- CableLabs will not issue any press release for Development Lab activities. Any Manufacturer press release mentioning CableLabs or the Development Lab must be approved by CableLabs in advance, per the Publicity Guidelines found in the "General Rules for Vendors" posted at <http://www.cablelabs.com/certqual/>.

CableLabs reserves the right to discontinue offering the Development Lab for Manufacturers' use, or to modify this Policy at any time with or without notice.

1.2 Confidentiality

Due to the configuration of the CableLabs Development Lab, Manufacturer will be required to share the Development Lab with other Manufacturers. Manufacturer, not CableLabs, has the responsibility for maintaining the confidentiality of the proprietary nature of Manufacturer's activities and test results. CableLabs hereby disclaims any liability for disclosure of information provided by or to Manufacturer during use of the CableLabs Development Lab.

Private lab space may be available upon request.

1.3 Scheduling

Scheduling access to the Development Lab is available on a fair, competitively neutral, as-available basis in a non-discriminatory manner. In no way shall Manufacturer's use of the Development Lab interfere with regularly scheduled certification activities. Reasonable efforts will be made to accommodate the Manufacturer's requested use; however, CableLabs' use of the Development Lab to support official certification activities will take highest priority.

Reservation of the Development Lab will not be made without full payment in advance of the applicable Fees (detailed in Section 1.8) and submission of the completed "Manufacturer Master Agreement" (Appendix I), "Manufacturer Request for Lab Use" (Appendix II) and Non-Disclosure Agreement(s). Manufacturers must complete one "Manufacturer Request for Lab Use" and pay the applicable Fees for each week they wish to reserve the Development Lab. Please be advised that lab requests received less than five days in advance may result in delayed lab readiness.

CableLabs will notify Manufacturer as soon as the Manufacturer's application has been accepted.

1.4 Information Sources

The CableLabs' Certification and Qualification web site (<http://www.cablelabs.com/certqual/>) contains required reading for Manufacturers as well as many useful documents on testing and conformance, including links to the current version of the applicable specifications, PICS and ATPs/CTPs.

Additional information is distributed via the email reflector for the CableLabs project of interest from time to time, for example, proposed ECRs to the Specifications, Acceptance Test Plans, Compliance Test Plans, PICS, etc. If you

do not already have access to the reflector for your project of interest, please review the “How to Participate” portion of the website located at <http://www.cablelabs.com>.

Detailed information can be obtained while on-site by accessing <http://visitors.cablelabs.com/interopweb>. This site includes detailed information on the configuration of the labs and other pertinent information.

1.5 Indemnification; Disclaimer; Limitation of Liability

Indemnification. Manufacturer shall indemnify and hold harmless CableLabs, its offices, directors, employees, consultants and agents, together with its members and their respective officers, directors, employees, consultants, and agents, from and against all judgments, orders, awards, claims, damages, losses, liabilities, costs and expenses, including, but not limited to, court costs and reasonable attorneys' fees ("Liabilities") arising under or related to this Development Lab Policy that are related to (i) the negligence, gross negligence or willfulness of Manufacturer, or any party under the direction or control of Manufacturer, (ii) Manufacturer's products used in the CableLabs Development Lab or (iii) Manufacturer's breach of this Agreement. Such Liabilities shall include, but are not limited to, liabilities that are attributable to personal injury, sickness, disease or death; and/or result from injury to or destruction of real or personal property including loss of use thereof, theft, misuse or misappropriation.

IPR Indemnity. Manufacturer will, at its expense, defend and indemnify CableLabs, its offices, directors, employees, consultants and agents, together with its members and their respective officers, directors, employees, consultants, and agents, from and against any claims, suits, or actions alleging that the use of Manufacturer's products in the CableLabs Development Lab ("Products"), or any part thereof, infringe a copyright, trademark, patent, trade secret, or other intellectual property right of a third party. Manufacturer agrees to pay all costs and damages (including reasonable attorneys' fees) finally awarded against CableLabs or paid in settlements for such infringement, provided that: (i) Manufacturer is promptly notified of any claim, suit, or action (ii) CableLabs permits Manufacturer to defend, compromise, or settle such claim, suit, or action, and (iii) CableLabs provides information and assistance reasonably requested by Manufacturer in order to carry out its obligations hereunder. Manufacturer shall not be responsible for any compromise or settlement made without its consent. Manufacturer shall not settle or compromise any Liabilities in which any relief other than the payment of money damages is sought against CableLabs (and will be paid by Manufacturer) unless CableLabs consents in writing to such compromise or settlement. In the event that the Products, or any part thereof, are held to infringe, or Manufacturer desires to terminate the use of the Development Lab in order to avoid actual or potential liability for infringement, Manufacturer may withdraw the Products. No refund of fees will be given to Manufacturer; and, any re-submission of the same or similar Products will be subject to the applicable fees.

Disclaimer of Warranties. USE OF THE DEVELOPMENT LAB, INCLUDING WITHOUT LIMITATION CABLELABS FACILITIES, EQUIPMENT, STAFF OR ANY OTHER PROPERTY, AS SPECIFIED HEREUNDER IS PROVIDED “AS IS” AND CABLELABS DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, CONFIDENTIALITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

Limitation Of Liability. IN NO EVENT SHALL CABLELABS BE LIABLE FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES ARISING FROM OR RELATED TO MANUFACTURER'S USE OF THE DEVELOPMENT LAB (INCLUDING CABLELABS FACILITIES, EQUIPMENT, STAFF OR ANY OTHER PROPERTY), INCLUDING, WITHOUT ANY LIMITATION, DAMAGE TO MANUFACTURER'S EQUIPMENT, OR DAMAGES WHICH REFLECT LOST BUSINESS, PROFITS OR REVENUE OBTAINED OR LOST, OR THE COSTS OF RECONSTRUCTING DATA, WHETHER DAMAGES OF THIS NATURE WERE FORESEEABLE OR NOT, AND EVEN IF CABLELABS HAD BEEN ADVISED THAT DAMAGES OF THIS NATURE WERE POSSIBLE. IN NO EVENT SHALL CABLELABS' TOTAL LIABILITY EXCEED THE AMOUNT OF FEES RECEIVED BY CABLELABS FROM MANUFACTURER FOR TESTING HEREUNDER.

CableLabs shall bear no liability for loss for damage or injury to Manufacturer's staff, employees or agents, or to Manufacturer's property, including but not limited to the product using the Development Labs and other equipment, tools, supplies, or records, from any cause or causes whatsoever, while in or on the premises of CableLabs or elsewhere.

1.6 Prerequisites for Lab Use

Manufacturers must have entered into a CableLabs project non-disclosure agreement (<http://www.cablelabs.com>) and have completed the prerequisites listed in Project Specific Sections. To initiate the request to use the Development Lab for the purpose of developing and testing cable television devices, Manufacturer must complete the attached application form located in the Appendix.

Manufacturer products must be associated with a particular CableLabs project and specification, or enter our labs based upon MSO request. In the future, non-CableLabs project specific products that are designed to be deployed on cable networks may be introduced into the lab for testing. Please contact CableLabs for further clarification in the event that the product is outside of the current CableLabs project specifications.

All manufacturers' devices must use up-to-date virus protection software and be free of viruses. Manufacturers are responsible for direct and indirect damage to the CableLabs' network due to a virus that CableLabs has found to be delivered onto the CableLabs' network by their equipment. Manufacturers' equipment will be denied access to CableLabs network until up-to-date virus protection software is installed on the manufacturer's equipment and the equipment is without any malicious software.

1.7 Device Delivery and Availability

The products should be shipped to:

(Project Name)
c/o Cable Television Laboratories, Inc. Fax: 303-664-8117
Attn: Project Manager, (Project Name) Phone: 303-661-9100
858 Coal Creek Circle
Louisville, CO 80027-9750
USA

A packing list of all equipment shipped should also be emailed to: se_mail@cablelabs.com.

Manufacturer assumes all liability for shipment of devices to and from CableLabs.

1.8 Fees

Reservation of the Development Lab will not be made without full payment of the Fees in advance of use of the Development Lab. Manufacturers wiring funds to CableLabs from non-US banks should allow additional time for the funds to arrive.

CableLabs reserves the right to set and change Fees from time to time. Additional Fees may apply depending on the special requests of Manufacturer.

1.8.1 Basic Fee

The basic use Fee is \$2500 USD per day, or \$12,000 USD per week (Monday through Friday). Included in the basic use Fee is:

- One CableLabs support person, on-call during business hours (8am to 5pm Mountain Time). Subject to availability, additional technical personnel may be made available, but additional fees may apply.
- Three lab benches (each 4 feet long for a total of 12 feet of bench space), plus space for 1 device up to four feet in width. This would be considered a lab section.

The basic fee allows a Manufacturer to have a maximum of one engineer (or other staff person or consultant) per bench, for a maximum of three persons using the Development Lab. **If Manufacturer requires more than three persons, Manufacturer must reserve additional Development Lab space at the fees posted herein.**

The basic use fee does not include CableLabs direct assistance in conducting any tests, nor does it include any CableLabs certification testing or informal compliance, or conformance testing.

1.8.2 Fees for use of the Development Lab on non-business days

If the Manufacturer requests use of the Development Lab on any day when CableLabs is not open for business, including weekends and holidays, and CableLabs can support such use, the Manufacturer will be billed at the rate of \$5000 USD for each such day during the hours of 8 am to 5 pm. CableLabs requires at least 72 hours advance notice to schedule support on non-business days.

1.8.3 Fees for use of the Development Lab after hours

If the Manufacturer requests using the Development Lab after 5 p.m. on any day when the Manufacturer is utilizing the Development Lab (whether business or non-business day), and CableLabs can support such use, the Manufacturer will be billed at the rate of an additional \$1500 USD for each day of such after-hours use. CableLabs requires at least 72 hours advance notice to schedule evening support on Friday.

1.8.4 Additional Fees

If Manufacturer requests additional CableLabs resources during its use of the Development Lab, for example, after-hours use, additional lab benches, additional space or additional time, and CableLabs can accommodate such request, Manufacturer's on-site personnel will be requested to complete a change request authorizing CableLabs to invoice Manufacturer for applicable additional fees. CableLabs will provide an updated electronic invoice, as applicable, at the end of each week of Lab Use. CableLabs will not issue credits or refunds for any unused lab time, space, or equipment.

1.8.5 Cancellation Policy

Fees will be refunded in full if written notice of cancellation is received more than five business days before the proposed use of the Development Lab. No refund will be made if written notice of cancellation is not received more than ten business days before the proposed use of the Development Lab.

1.9 Lab Use Guidelines

1.9.1 Access

CableLabs technical personnel will provide Manufacturer's employees access to the Development Lab. Access Cards will be issued to individuals during their visit. Access Cards are only valid for authorized times. Should a card be lost or stolen Manufacturer must notify its CableLabs representative immediately. Manufacturer must pay a \$25 replacement charge for each lost card.

Manufacturer will also have access to break area and restrooms. Access to all other areas is not permitted due to the confidential nature of other CableLabs activities. The Development Lab is generally open from 8am to 5pm Mountain Time, Monday through Friday, except for holidays. Subject to availability, additional times may be scheduled, but additional Fees apply.

1.9.2 Operation of Equipment

Subject to availability, CableLabs-owned equipment may be available to Manufacturer. CableLabs technical personnel shall operate such equipment unless otherwise approved by CableLabs. CableLabs will use reasonable efforts to accommodate all reasonable requests of Manufacturer for operation of the CableLabs-owned equipment; however, CableLabs reserves the right, in its sole discretion, to operate (or not operate) such equipment in accordance with Manufacturer's requests.

Test equipment provided by CableLabs shall be returned in good working order. Any repairs required due to misuse will be charged to the manufacturer at the total cost of repair, including shipping and handling fees.

1.9.3 Manufacturer Rules of Engagement.

Manufacturer agrees to abide by the Rules of Conduct available at <http://www.cablelabs.com/certqual/> and posted in the Development Lab area.

1.9.4 Malicious Software

Any equipment used or otherwise provided by Manufacturer that is planned to be connected to the CableLabs network must be running up-to-date anti-virus protection software. Before Manufacturer will be allowed to connect to the CableLabs network, it must demonstrate to CableLabs that its anti-virus software is configured to automatically update its engine and/or virus definitions on at least a daily basis, and that it is successfully doing so.

1.9.5 Product Power Considerations

AC power will be provided (120 volts, 60 hertz and not to exceed 16 amps). Manufacturer must provide conversion equipment if Manufacturer has different power requirements, provided such equipment is compatible with the power system available in the Development Lab. Manufacturer must provide UPS if needed.

1.9.6 Equipment Availability

CableLabs will make every effort to supply test equipment, as requested. Should CableLabs not have specific tools or a reasonable substitute, Manufacturer will be responsible for supplying that equipment.

1.10 Follow-up Requirements

After completion of the lab use session, Manufacturer is requested to provide the following:

- Brief status report on Manufacturer's activities during the Development Lab use period. While CableLabs does not expect specific test results from Manufacturer, we request that Manufacturer provide CableLabs with general information about progress made toward commercial readiness of Manufacturer's product using the Development Lab.
- Observed issues with respect to Development Lab activities; interoperability characteristics of certified or qualified devices; the equipment, test tools and test scripts provided by CableLabs; and the network configuration and RF characteristics of the Development Lab.
- Comments and feedback on ECNs, published Specifications, Test Suites, Acceptance Test Plans (ATPs), PICS, etc.
- Other comments on the effectiveness of the testing or suggested improvements.

1.11 Development Lab Resources

The CableLabs Development Lab resources include:

- **The Development Lab** – The development lab consists of four rooms. Each room contains test benches and basic testing tools and other equipment that may be used on a fair, competitively neutral, as-available basis in a non-discriminatory manner. Please refer to project-specific sections below for more information. Other Manufacturers' previously certified equipment may be available for testing interoperable functionality and conformance with previously certified CPE devices (e.g., DOCSIS, PacketCable, OpenCable Host and CableHome devices). CableLabs cannot provide access to non-certified equipment made by other Manufacturers. If Manufacturer needs non-certified/qualified product(s) for testing in the Development

Laboratory, it is Manufacturer's sole responsibility to make all necessary arrangements, including shipment of the non-certified equipment to and from CableLabs.

- **The Main Headend Room.** This portion of the CableLabs' facility is in a confined, secure area and contains the headend equipment that is used for interoperability and certification testing. Physical access to the main headend room is only allowed with a CableLabs employee escort. The headend equipment in the main headend room is meant to be representative of headend equipment deployed in cable systems that will support cable television equipment. Note: The cable plant characteristics at CableLabs do not necessarily represent the actual environment that deployed devices will encounter.

2 PROJECT SPECIFIC INFORMATION

Development to the OpenCable™ and/or “Plug and Play” unidirectional devices Specifications

2.1 Manufacturer Obligations and Prerequisites

2.2 PHILA or DFAST Technology License Agreement.

Either the PHILA or DFAST (or both) agreements provide Manufacturer with a license to the proprietary DFAST Technology that is required in all CableCARD-enabled devices. PHILA is located at <http://www.opencable.com/documents/>, DFAST is located at www.cablelabs.com/udcp.

2.3 DCAA (for PHILA) or Agreement for Manufacturer Receipt of Digital Certificates under DFAST License.

Either the DCAA or the Agreement for Manufacturer Receipt of Digital Certificates under DFAST License (or both) agreements provide Manufacturer with a license to obtain the digital certificates required in all CableCARD™-enabled devices. The DCAA is located at <http://www.opencable.com/documents/>. The Agreement for Manufacturer Receipt of Digital Certificates under DFAST License is located at <http://www.cablelabs.com/udcp>.

2.4 DFAST Secrets and Digital Certificates

The CableLabs Development Lab may be configured with either evaluation or production DFAST secrets and digital certificates. In order for Manufacturer to obtain effective use of their testing time, all devices should have DFAST secrets and X.509 digital certificates implemented. Technically a DFAST and X.509-enabled device is **not** required for testing. However, devices without DFAST and X.509 certificates will not be able to communicate with a majority of the CableLabs test equipment in any meaningful manner, i.e., such Hosts would likely be limited to basic QAM/RF testing, FDC testing, in-the-clear video testing, and basic initialization testing.

2.5 Access to Headends and CA Systems.

The Test Facilities include functional CableCARDS, Test Tools (e.g., RF test equipment), and headend facilities. All such equipment may be configured with either evaluation or production DFAST secrets and X.509 digital certificates. In order for Manufacturer to obtain effective use of their development testing time, **all Host and CableCARD devices should have such DFAST secrets and X.509 certificates implemented.**

Due to the limited availability of HTTX and HPNXPro nodes, CableLabs will loan HTTX and HPNXPro to visiting vendors, as available. Vendors are strongly encouraged to supply their own HTTX and HPNXPro for the purpose of testing their devices. Vendors must ensure that they have the most recent software installed on their HTTX and HPNXPro.

3 DEVELOPMENT TO THE DOCSIS™ SPECIFICATIONS MANUFACTURER OBLIGATIONS

3.1.1 Number of Devices

For optimum use of time, Manufacturers should provide multiple units of each device to be tested, as specified below. More than one product type is permissible, as are devices with different hardware and/or software revisions. The testing priority is at the Manufacturer's discretion, based on availability of time, equipment and resources. It is requested that the Manufacturer specify in advance which tests they want to perform, by order of preference. This can be provided in the application.

- DOCSIS CPE Devices: Three sample units are recommended for testing. In the event that wireless testing is required, it is the Manufacturer's responsibility to provide wireless to Ethernet bridges for said testing.
- DOCSIS Headend Equipment: Two sample units are recommended for testing. Manufacturers are responsible for set up of the CMTS, including configuration, provisioning, configuration file management, etc.

3.1.2 Access to other products

Manufacturer may request access to DOCSIS certified and qualified product(s) subject to availability.

- Manufacturers must provide a complete list of requested qualified CMTS in the Development Lab Equipment Request as available in Appendix II: Manufacturer Request for Lab Use and each manufacturer's representative may have access to only one CMTS at a time.
- Manufacturers must provide a complete list of requested certified cable modems in the Development Lab Equipment Request as available in Appendix II: Manufacturer Request for Lab Use.

3.1.3 Access to test platform and test tools

Manufacturer may request access to DOCSIS testing platform and testing tools subject to availability.

- CableLabs will provide basic IP network tools including: DNS/DHCP services, sniffers, packet generators and Windows test PCs.
- CableLabs will provide access to the DOCSIS testing environment including TelSim, testing scripts, and other necessary protocol test tools as available.
- AC power will be provided. DC power will not be available.

3.1.4 Manufacturer-provided products and tools

Manufacturer is responsible for providing all additional products and testing tools necessary for requested Development Lab activities.

- Manufacturer must provide to CableLabs proof of agreement for use of other Manufacturer products in the Development Lab, including non-certified and non-qualified products.
- Manufacturer that provides testing tools must demonstrate that these testing tools will not negatively impact or harm the Development Lab or other manufacturer products in the Development Lab.

3.2 Special Instructions

If performing pre-certification testing, special instructions may be applicable for submission. Please review CMTS Special Instructions under “Certification Documents” on the DOCSIS DocZone partition.

3.3 Orientation

An orientation document will be provided upon arrival as well as a walk through of the lab environment.

4 DEVELOPMENT TO PACKETCABLE™ SPECIFICATIONS

4.1 Manufacturer Obligations

4.1.1 Number of Devices

Manufacturer is responsible for providing an appropriate number of units of product for use in the Development Lab. For optimum use of time, Manufacturers should provide multiple units of each device. More than one product type is permissible, as are devices with different hardware and/or software revisions. The following minimum numbers of units are recommended:

- E-MTA/E-DVA: Minimum of eight sample units is recommended. The manufacturer must provide all of the necessary certificates and images.
- PacketCable CMTS: Two sample units are recommended. Manufacturers are responsible for setup of the CMTS, including configuration, provisioning, configuration file management, etc.
- RST Application Server, CMS, MGC, MG: One sample unit is recommended. RST Application Server, CMS, MGC and MG vendors must provide compatible RST Application Server, CMS, MGC, and MG products if they are not available for use in the Development Lab.
- Other Products (i.e., test tools, RKS, Provisioning Server, DF, KDC, etc.): One sample unit is recommended.

4.1.2 Access to other products

Manufacturer may request access to PacketCable certified and qualified product(s) subject to availability.

4.1.3 Access to test platform and test tools

Manufacturer may request access to PacketCable testing platform and testing tools subject to availability.

- CableLabs will provide basic IP network tools including: DNS/DHCP services, sniffers, packet generators and Windows test personal computers.
- CableLabs will provide access to the PacketCable protocol-testing environment including TclSim, testing scripts, and other necessary protocol test tools as available.
- CableLabs will provide access to the PacketCable system-testing environment including DCOSS, bulk call generators, and other necessary system test tools as available.
- PacketCable provisioning services can be provided upon request.

4.1.4 Manufacturer-provided products and tools

Manufacturer is responsible for providing all additional products and testing tools necessary for requested Development Lab activities.

- Manufacturer must provide to CableLabs proof of agreement for use of other Manufacturer products in the Development Lab, including non-certified and non-qualified products.
- Manufacturer that provides testing tools must demonstrate that these testing tools will not negatively impact or harm the Development Lab or other manufacturer products in the Development Lab.
- Manufacturer must provide UPS if needed.

4.2 PacketCable “Vendor Product Operating Instructions”

If performing pre-certification preparation, it is recommended for the Manufacturer to provide specific operating instructions. Templates for the “Vendor Product Operating Instruction” documents can be found on the PacketCable DocZone web site in “Certification Wave Documentation”, then under the most recent certification wave.

4.3 Orientation

An orientation document will be provided upon arrival as well as a walk through of the lab environment.

Appendix I **Manufacturer Master Agreement**

Note: To be completed once by Manufacturer and returned to CableLabs along with the Manufacturer’s first “Manufacturer Request for Lab Use” (*See Appendix II.*)

In order to allow Manufacturers to schedule Development Lab Use on an as-needed basis without requiring a corporate officer’s signature for each Request for Lab Use, CableLabs has created this “Manufacturer Master Agreement” which needs to be signed and sent to CableLabs **only once**, when Manufacturer submits its **first** Manufacturer Request for Lab Use.

Manufacturer name:			
Corporate Officer Name:			
Corporate Officer Phone:		FAX #:	
E-mail address:			
Corporate Office Address:			
	City:	State:	Zip:
Signature of Corporate Officer:	_____ <i>(Acknowledges and Agrees to Development Lab Use Policy)</i>		
Date Signed:			

Appendix II Manufacturer Request for Lab Use (p.1 of 3)

Note: To be completed for *each week* of lab use, pursuant to Manufacturer’s signed “CableLabs Development Lab Use Policy” (See Appendix I.)Manufacturer Request for Lab Use (p.1 of 3)

Manufacturer Name:	
Requestor Name:	
Requestor Phone:	Office Phone Number: Mobile Phone Number: Fax:
E-mail address:	
Requestor Address:	Street Address: City: State: Zip:
Emergency Contact Information for on-site engineers:	
Product Type (if applicable): <i>for example: CM, E-MTA, E-DVA, CMTS, RST AS, CMS, MGC, MG, KS, CableCARD, OpenCable Host, UDCP Host, other.</i>	
MSO-sponsor, if applicable:	
EAS (Emergency Alert System) testing required: <i>please provide duration.</i>	
DOCSIS Version (if applicable): <i>for example: D3.0, D2.0</i>	
PacketCable Version (if applicable): <i>for example: PC2.0, PC1.5</i>	
If product is a CableCARD, or OpenCable or UDCP host, please specify whether evaluation or product DFAST and X.509 certificates are used.	Production Secrets _____ Evaluation Secrets _____
If product operates in BPI+ mode, please state which root the device certificates chains to.	
Additional product information or capabilities relevant to requested Development Lab Use:	
Purpose (Please identify your reasons for requesting the CableLabs Development Lab (i.e.; running specific TEPS/scripts, DCC issues, interoperability issues, pre-certification or pre-verification preparation, etc.).	
Development Lab Equipment Requests: (If known, please list the CableLabs equipment you would like to access (e.g., specify headend types, special test equipment, RF rack, special configurations or power consumption requirements, etc.).	

Devices should be shipped to:

**Cable Television Laboratories, Inc.
858 Coal Creek Circle
Louisville, CO 80027-9750 USA**

Phone: 303-661-9100

Attn: Project Director: DOCSIS OpenCable PacketCable

Manufacturer Request for Lab Use (p.2 of 3)

Manufacturer Name:			
Lab Use Dates:	Start Date:	End Date:	
	(Use separate forms for each week of requested Lab Use.)		
	Fee	Quantity	Amount
Basic Request: 1 bench row = max of 3 engineers.	\$2500 / day, or \$12000 for five days	Total # of Days: _____	\$ _____
Private Lab Request: Max of 6 engineers	\$3000 / day, or \$15000 for five days	Total # of Days: _____	\$ _____
Engineer Names: Basic Request = max of 3 engineers per request at any time.	1. 2. 3.		
After-hours usage: 5 pm – 10 pm (CableLabs requires at least 72 hours advance notice to schedule Friday evening)	\$1500 per night	# of after-hours test nights: _____ Dates of after-hours use: _____	\$ _____
Weekend/Holiday usage: (must be approved by CableLabs at least 72 hours in advance)	\$5000 per Saturday, Sunday or holiday	# of weekend days/holidays: _____	\$ _____
Additional Benches: 1 additional bench row = max of 3 additional engineers	\$2500 / day, or \$12000 for five days.	Number of additional benches: _____ Dates of additional benches: _____	\$ _____
Additional Engineer Names:	4. _____ 7. _____ 5. _____ 8. _____ 6. _____ 9. _____		
After-hours for Additional Benches: 5 pm – 10 pm	\$1500 per night per bench	# of after-hours test nights: _____ # of additional benches: _____ Dates of after-hours use: _____	\$ _____
Total			\$ _____
Manufacturer's Purchase Order No.			
Signature Requestor/Authorized Agent	_____		Date: _____
Manufacturer's A/P Contact and Email For invoicing purposes	A/P Contact: Email Address:		

Note: CableLabs will send an electronic invoice to the A/P contact based on the above P.O.

Cancellation Policy: Cancellations or changes to this original P.O. must be provided to CableLabs at least 10 business days prior to Manufacturer's "Start Date" for Lab Use. See Section 1.8, Fees, for further details on the cancellation policy.

Manufacturer Request for Lab Use (p.3 of 3)

Note: If additional resources are required, other than cancellations, Manufacturer's on-site personnel will be requested to complete a change request using the space below. CableLabs will provide a new electronic invoice, as needed, at the end of each week of Lab Use. CableLabs will not issue credits or refunds for any unused lab time, space, or equipment.

CHANGES TO EXISTING REQUEST & PO				
DATE	CHANGE DESCRIPTION (After hours usage, additional benches, additional dates, etc.)	FEE	AUTHORIZED MFG REPRESENTATIVE	CL REP

FAX THIS COMPLETED DEVELOPMENT LAB USE REQUEST TO: (303) 664-8117

CL USE ONLY			
DEPT	ACCT	PROJECT	TOTAL
	4810		
SIGNATURE: _____			