

**DIGITAL CERTIFICATE AUTHORIZATION AGREEMENT**  
**For Devices Built in Compliance with the**  
**BUSINESS SERVICES DPoE™ SPECIFICATIONS**

This Digital Certificate Authorization Agreement (“Agreement”), is made effective as of \_\_\_\_\_ (the “Effective Date”) by and between Cable Television Laboratories, Inc., (“CableLabs®”) a Delaware non-stock membership corporation with offices at 858 Coal Creek Circle, Louisville, Colorado 80027-9750, PHONE: 303-661-9100; FAX: 303-661-9199 and the party identified below (“Manufacturer”).

Manufacturer: (Legal Entity executing this Agreement)	Billing Contact:
Address:	Title:
	Phone:
	Fax:
	E-mail:
Technical Contact:	Legal Contact:
Title:	Title:
Phone:	Phone:
Fax:	Fax:
E-mail:	E-mail:

CableLabs maintains and operates a secure Public Key Infrastructure (PKI) for issuing authorized and secure Digital Certificates that may be embedded in cable devices built to the Cable Data Services DPoE specifications (the “Specifications”). CableLabs also issues Code Verification Certificates that are used to sign code that will be used by cable devices with digital certificates.

CableLabs hereby grants to Manufacturer the authorization to obtain and embed Digital Certificates in its Optical Network Unit (“ONU”) built in accordance with the terms and conditions of this Agreement and the authorization to obtain a Code Verification Certificate for use in signing its code in accordance with the DPoE specifications subject to the terms and conditions herein.

**MANUFACTURER HAS READ AND AGREES TO BE BOUND BY THE TERMS AND CONDITIONS OF THIS AGREEMENT, INCLUDING THOSE TERMS CONTAINED ON THE FOLLOWING PAGES HEREOF.**

In consideration of the mutual promises and covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties have entered into this Agreement as of the Effective Date.

<b>CABLE TELEVISION LABORATORIES, INC.</b>	<b>MANUFACTURER NAME:</b>
By:	By:
Name:	Name:
Title:	Title:
Date:	Date:

## **Agreement**

### **1.0 Definitions**

- 1.1. “Compliant” means that the ONU is, in CableLabs’ ultimate and reasonable determination, materially constructed to the Specifications.
- 1.2. “Certificate Manager” means a service manager identified by CableLabs that manages certain aspects of the CableLabs PKI.
- 1.3. “CVC” means a code verification certificate that is signed by the appropriate CableLabs’ Code Verification Root CA as described in the Specification.
- 1.4. “Device” means Manufacturer’s Compliant ONU.
- 1.5. “Digital Certificate” means those device digital certificates as described in the Specifications.
- 1.6. “DPoE CA” means a Certification Authority, which is hosted by a third party, which is signed by the CableLabs’ Manufacturer Root CA.
- 1.7. “ONU” means Optical Network Unit,
- 1.8. “Public Key Infrastructure” (PKI) means the architecture, organization, techniques, practices, and procedures that collectively support the implementation and operation of a digital certificate-based public key cryptographic system.
- 1.9. “Specifications” means CableLabs issued Cable Data Services, DPoE specifications.
- 1.10. “Wrongful Use” means Manufacturer has knowingly or with gross negligence embedded a Digital Certificate in a Device or any other product or application that is not Compliant.

### **2.0 Digital Certificate Authorization**

- 2.1. Upon receipt of a complete and executed Agreement, payment of appropriate fees (see **Exhibit A**), the Manufacturer’s information (see **Exhibit B**), the Naming Documents (see **Exhibit C & D**), and verification of Manufacturer’s identity for security purposes, CableLabs hereby authorizes Manufacturer to receive Digital Certificates issued from a DPoE CA and a CVC from the CableLabs CVC CA.

### **3.0 Use of Digital Certificates and Request/Receipt of Certificates**

- 3.1. **Embedding of Digital Certificates.** Manufacturer shall not embed or otherwise use the Digital Certificates in any Device that is not Compliant. Manufacturer shall not embed or otherwise use any Digital Certificate associated with a private key that Manufacturer knows or should have known was stolen, intercepted or otherwise compromised in any way.
- 3.2. **Security of Digital Certificate Private Keys.** Manufacturer shall safeguard the Digital Certificate private keys to ensure that the private keys are not lost, stolen, embedded or otherwise used in a product other than a Device or otherwise used in a manner that may compromise or actually does compromise the CableLabs PKI, as CableLabs may determine in its sole discretion.
- 3.3. **Security of CVC(s).** Manufacturer shall safeguard the CVC(s) and associated private key(s), to ensure that the CVC(s) and such private keys are not lost, stolen or otherwise compromised.
- 3.4. **Automated Request/Receipt of Digital Certificates.** Within thirty (30) days after receipt of the Annual Maintenance Fee (see Exhibit A), CableLabs shall cause the Certificate Manager to send to Manufacturer certain secure software and an administrator token for securely obtaining Digital

Certificates in an automated fashion. Manufacturer shall install and use the software and administrator token to submit requests for, and receive, Digital Certificates.

- 3.5. **No Other Rights.** CableLabs retains all right, title, and interest in and to the CableLabs root certificates and any associated trade secrets or other proprietary information associated therewith that is provided by CableLabs to Manufacturer hereunder. CableLabs grants no rights in any trademark, trade name, service mark, business name or goodwill of CableLabs.
- 3.6. **Software Image Signing.** Manufacturer must only use the CVC to digitally sign software images for Devices they manufacture.

#### **4.0 Term and Termination**

- 4.1. **Term.** The term of this Agreement shall begin on the Effective Date and shall continue until terminated earlier under the provisions of this Section.
- 4.2. **Termination by Manufacturer.** Manufacturer may terminate this Agreement, with or without cause, by giving CableLabs sixty days written notice of such termination.
- 4.3. **Termination by CableLabs.** CableLabs may terminate this Agreement for material breach of this Agreement by Manufacturer, where such breach is not cured within sixty days of notice to Manufacturer; or, where such breach is incapable of cure at the time of the material breach. Examples of breach include, but are not limited to: Manufacturer's CVC or Digital Certificate private keys have been lost, stolen, intercepted or otherwise compromised in any way, a court or governmental agency orders CableLabs to revoke Manufacturer authorization, or a series of non-material breaches of this Agreement by Manufacturer.
- 4.4. **Termination for Wrongful Use.** If this Agreement is terminated due to Wrongful Use, in addition to revoking CableLabs' authorization for Manufacturer to receive Digital Certificates, CableLabs shall receive all net revenue Manufacturer receives from Wrongful Use. CableLabs' receipt of revenue from Wrongful Use is in addition to any damages CableLabs is entitled to receive by law.
- 4.5. **Effect of Termination or Certificate Revocation.** If this Agreement is terminated, or a CVC or Digital Certificate is revoked, Manufacturer shall discontinue using such CVC and related Digital Certificate(s) and cease embedding or otherwise using such Digital Certificate(s) in any or all affected Device(s). Manufacturer shall keep secret or destroy any unused or revoked CVCs, Digital Certificates and any associated private keys, and take such other action as is reasonably directed by CableLabs. Notwithstanding any termination of this Agreement, any un-revoked Digital Certificate(s) used in Device(s) that are no longer under the control of Manufacturer shall be valid until the expiration of their validity period as stated in the Specifications.

#### **5.0 Fees**

- 5.1. **Fees.** Manufacturer shall pay to CableLabs, in advance, the Fees identified in Exhibit A. CableLabs may, upon thirty (30) days prior notice to any Annual Maintenance Fee due date, modify the Fees payable for the following year, provided that such change shall not exceed an amount commensurate with any increase in CableLabs' costs (including, but not limited to, the cost of inflation).
- 5.2. **Applicable Taxes.** CableLabs is exempt from income tax in the United States under Section 501(c)(6) of the Internal Revenue Code. The Fees paid by Manufacturer hereunder are exclusive of, and Manufacturer shall pay, all sales, use, value added, excise, income tax, withholding tax, and other taxes or charges (other than income taxes) that may be levied upon either party by taxing authorities other than the United States in connection with this Agreement (except for taxes based on CableLabs' employees) and shall pay all income taxes that may be levied upon Manufacturer.

## **6.0 Warranty, Indemnity, Limitation of Liability**

- 6.1. **Indemnification.** Manufacturer shall indemnify and hold harmless CableLabs, its members, directors, employees, and agents (including the entity that holds the CableLabs' Root CAs and the entity(ies) that holds the CAs that issued DPoE CVCs or Digital Certificates), for any claim arising from or related to Manufacturer's use and implementation of the CVC or Digital Certificates, including, without limitation, Wrongful Use. Such indemnification obligations shall be subject to: (i) CableLabs notifying Manufacturer, in writing of any such claim and (ii) Manufacturer having the sole control of the defense and all negotiations for any settlement or compromise of such claim, provided, however, that CableLabs may participate in such defense using counsel of its own choice and at its sole expense.
- 6.2. **Disclaimer of Warranties.** THE DIGITAL CERTIFICATES, USE OF WHICH IS AUTHORIZED HEREUNDER, ARE PROVIDED "AS IS" AND CABLELABS DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, ACCURACY, SECURITY, OR NON-INFRINGEMENT.
- 6.3. **Limitation of Liability.** WITH THE EXCEPTION OF MANUFACTURER'S GROSS NEGLIGENCE, WILLFUL ACTS OR "WRONGFUL USE", IN NO EVENT WILL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR PUNITIVE DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES WHICH REFLECT LOST BUSINESS, PROFITS OR REVENUE OBTAINED OR LOST, OR THE COSTS OF RECONSTRUCTING DATA OR REBUILDING DEVICES, WHETHER DAMAGES OF THIS NATURE WERE FORESEEABLE OR NOT, AND EVEN IF THAT PARTY HAD BEEN ADVISED THAT DAMAGES OF THIS NATURE WERE POSSIBLE. IN NO EVENT SHALL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT TO THE OTHER PARTY FOR ANY AMOUNT EXCEEDING THE FEES ACTUALLY RECEIVED BY CABLELABS FROM MANUFACTURER.
- 6.4. **Manufacturer Liability for Manufacturer Supplied Information.** Manufacturer is solely liable for the resulting Digital Certificates created from the information Manufacturer provides in the exhibits attached hereto and incorporated by this reference. **Failure to completely and correctly complete the exhibits will result in incorrect Digital Certificates.**

## **7.0 General**

- 7.1. **Notices.** Any notices, required or permitted to be made or given to either party pursuant to this Agreement shall be in writing and shall be delivered to the address set forth on the first page, or to such other address as the receiving party may have designated by written notice given to the other party. Legal notices shall be sent to the person listed as the Legal Contact. Technical notices shall be sent to the name listed as the Technical Contact.
- 7.2. **Export.** Manufacturer shall not export or re-export (directly or, knowingly indirectly) any Digital Certificates, documentation, or other technical data without complying with the U.S. Export Administration Act and the associated regulations.
- 7.3. **Audit.** CableLabs or its duly authorized representatives shall be permitted, upon reasonable notice, and subject to appropriate non-disclosure terms, to inspect all records pertaining to the CVC(s) and related Digital Certificates, including, without limitation, records related or pertaining to the security, usage, and distribution of the CVC(s) and related Digital Certificates. The inspections may be made notwithstanding termination of this Agreement while any outstanding claim remains unsettled in the view of either party. CableLabs shall pay all auditing costs for routine, CableLabs' initiated, audits. In the event CableLabs conducts an audit due to issues identified prior to the audit Manufacturer shall pay CableLabs' reasonable auditing costs (travel, food and lodging).

- 7.4. **Irreparable Harm.** Manufacturer acknowledges and agrees that due to the unique and sensitive nature of the use of the CVC(s) and Digital Certificates authorized hereunder, including any private keys therein, there can be no adequate remedy at law for breach of Manufacturer's obligations hereunder, that such breach or unauthorized use or release of the CVC(s) or Digital Certificates will cause material damage and result in irreparable harm. Therefore, upon any such breach or any threat thereof, CableLabs shall be entitled to appropriate equitable relief in addition to whatever remedies it might have at law.
- 7.5. **Waiver.** Any waiver by either party hereto of any breach of this Agreement shall not constitute a waiver of any subsequent or other breach.
- 7.6. **Survival.** Sections 1, 4.5, 6, 7.2, 7.3, 7.6, and 7.9 shall survive any termination of the Agreement.
- 7.7. **Assignment.** Manufacturer may not assign this Agreement without the express, prior written approval of CableLabs.
- 7.8. **Entire Agreement/Severability/Amendments.** This Agreement embodies the entire understanding of the parties with respect to the subject matter hereof and merges all prior discussions between them, and neither of the parties shall be bound by any conditions, definitions, warranties, understandings or representations with respect to the subject matter hereof other than as expressly provided herein. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be in any way affected or impaired thereby. No amendment or modification hereof shall be valid or binding upon the parties unless made in writing and signed by both parties hereto.
- 7.9. **Governing Law; Forum.** This Agreement shall be construed in accordance with the law of the state of Colorado, without regard to its conflict of laws rules. The Parties here by agree to exclusive jurisdiction and venue in the federal/state courts located in the city and county of Denver, Colorado.

## EXHIBIT A

### Fees

<b>DPoE Certificate Requesting Account (CRA) -- Annual Maintenance Fee</b>	<b>\$20,000</b>
<b>DPoE Code Verification Certificate (CVC) – a 10-year certificate</b>	<b>\$20,000</b>
<b>Per Digital Certificate (Minimum order 10,000 Certificates)</b>	<b>\$0.07</b>

**Note:** For purchasing Additional Services, e.g. additional/ replacement Administrator Tokens, please contact CableLabs' Digital Certificate Account Coordinator for details and fee schedule.

#### **Payment Instructions:**

All Fees must be paid in **advance**.

Manufacturer may submit a Purchase Order and payment with execution of this Agreement. Alternatively, CableLabs will invoice Manufacturer for the Annual Maintenance Fee.

All Purchase Orders should be submitted to:

CableLabs  
858 Coal Creek Circle  
Louisville, CO 80027-9750  
Attn: Accounting  
Phone: (303) 661-9100  
Fax: (303) 661-9199  
Email: [j.tahara@cablelabs.com](mailto:j.tahara@cablelabs.com)

All Payments should be submitted to:

#### **Wiring Information:**

Please contact the CableLabs Accounting Dept.  
at (303) 661-9100 for wiring information.

#### **Mailing Information:**

Cable Television Laboratories, Inc.  
PO Box 973461  
Dallas, TX 75397-3461

## EXHIBIT B

### MANUFACTURER'S INFORMATION

#### CORPORATE INFORMATION:

Official Company Name:
Corporate Headquarters Address:
Headquarters Main Phone:
D-U-N-S Number: Providing your DUNS number in advance can assist in the Authentication process. If you do not know your company's D-U-N-S number, you can look it up at <a href="http://www.dnb.com">http://www.dnb.com</a> . Note: The Legal Company Name and Corporate Address listed above must match the information that is listed in the D-U-N-S Database.

#### MANUFACTURER'S CORPORATE CONTACT:

This is the person responsible for the device manufacturing system, who is authorized to assign the other account contacts including administrators that will request Certificates from CableLabs. Any authentications needed to approve or make changes to the account will all be authenticated through this Corporate Contact.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:

#### PRIMARY ADMINISTRATOR CONTACT:

This is the person who is authorized to request and receive certificates. An Administrator Kit and an administrator certificate will be delivered to this person at this address. This will generally be the manufacturing location where production certificates are installed.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:
Address:	City and State:
Zip/Postal Code:	Country:

**SECOND ADMINISTRATOR CONTACT:**

This is the person who is authorized to backup the primary administrator contact. This person is also authorized to request and receive certificates. An Administrator Kit and an administrator certificate will be delivered to this person at this address. This will generally be the manufacturing location where production certificates are installed.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:
Address:	City and State:
Zip/Postal Code:	Country:

**MANUFACTURER’S TECHNICAL CONTACT**

This is a technical contact, typically in development engineering, authorized to discuss technical issues related to the PKI with CableLabs.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:

**MANUFACTURER’S LEGAL CONTACT**

This person will receive a copy of any contractual related notices.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:
Address:	City and State:
Zip/Postal Code:	Country:

**MANUFACTURER’S BILLING CONTACT:**

This is the person responsible for payment and notifying CableLabs of any billing changes, for example an accounts payable representative.

First Name:	Last Name:
Title:	E-mail:
Telephone:	Fax:
Address:	City and State:
Zip/Postal Code:	Country:

## EXHIBIT C

### DPoE ONU DEVICE CERTIFICATE NAMING APPLICATION

#### NAMING DOCUMENT FOR END-ENTITY DEVICE CERTIFICATES

Please complete the Administrator Information section and the Subject DN of the Certificate Format. Failure to complete these sections will result in delay.

#### Administrator Information:

Company Name:	
Administrator Name:	Phone:
Administrator E-mail:	

#### Certificate Format:

To Be Completed by Manufacturer	
Base Certificate	
Subject DN	c=
	o=
	ou=
	cn= <(MAC Address (to be entered via the Administrator Account))>

For CableLabs and CA Use Only				
Version	v3			
Serial number	Unique Positive Integer assigned by the CA			
Issuer DN	c=US o=CableLabs st=Colorado l=Louisville ou=CA00008 cn=CableLabs Mfg CA			
notBefore	yymmdd000000Z (Certificate Issuance Date)			
notAfter	yymmdd235959Z (20 years**)			
Public Key Algorithm	sha1withRSAEncryption (1 2 840 113549 1 1 5)			
Keysize	2048-bits			
Parameters	NULL			
Standard Extensions	OID	Include	Criticality	Value
keyUsage	{id-ce 15}	X	FALSE	n/a
digitalSignature				Set
keyEncipherment				Set
authorityKeyIdentifier	{id-ce 35}	X	FALSE	Calculated per Method 1
keyIdentifier				<same as subjectKeyIdentifier in CA certificate>

**Approval**

**Signature**

**Date**

Administrator Contact: \_\_\_\_\_

Corporate Contact: \_\_\_\_\_

## EXHIBIT D

### DPoE Mfg CVC Certificate Naming Document

#### NAMING DOCUMENT FOR END-ENTITY DEVICE CERTIFICATES

Please complete the Administrator Information section and the Subject DN of the Certificate Format. Failure to complete these sections will result in delay.

#### Administrator Information:

Company Name:	
Administrator Name:	Phone:
Administrator E-mail:	

#### Certificate Format:

To Be Completed by Manufacturer	
Base Certificate	
Subject DN	c=
	o=
	ou= <b>DPoE</b>
	cn= <b>Code Verification Certificate</b>

For CableLabs and CA Use Only				
Version				v3
serial number				Sha1
Issuer DN				c=US o=CableLabs cn=CableLabs CVC CA
NotBefore				yymmdd000000Z (Key Ceremony Date)
NotAfter				yymmdd235959Z (10 years**)
Public Key Algorithm				Sha1withRSAEncryption (1 2 840 113549 1 1 5)
Keysize				2048 bits
Parameters				NULL
Standard Extensions	OID	Include	Criticality	Value
extendedKeyUsage	{id-ce 37}	X	TRUE	
id-kp-codeSigning				<b>1.3.6.1.5.5.7.3.3</b>

Approval:

Signature:

Date:

Requestor Signature: \_\_\_\_\_