

**AMENDED AND RESTATED NONEXCLUSIVE
CABLECARD-HOST INTERFACE LICENSE AGREEMENT**

THIS NONEXCLUSIVE CABLECARD-HOST INTERFACE LICENSE AGREEMENT (the “**Agreement**”) is an amendment and restatement of an original Nonexclusive POD-Host Interface License Agreement and is entered into as of _____ (the “**Effective Date**”), by and between _____, having a place of business at _____ (“**Licensee**”) and Cable Television Laboratories, Inc., having a place of business at 858 Coal Creek Circle, Louisville, Colorado USA 80027 (“**CableLabs**”).

RECITALS

WHEREAS, CableLabs is a research and development company funded by the cable television industry;

WHEREAS, Licensee is in the business of, among other things, designing, developing, manufacturing and distributing components for use in the cable television industry;

WHEREAS, CableLabs through its OpenCable project has specified a set of functional requirements and interfaces to foster interoperability and retail availability among advanced digital set-top terminals and navigation devices to be deployed in cable networks. The OpenCable project includes Issued specifications whereby national control centers and/or cable system head-ends may communicate with individual addressable CableCARDs (as defined below) that are connected to set-top terminals or navigation devices for authorizing or de-authorizing digital services on a program by program basis (the “**OpenCable Specifications**”). The OpenCable Specifications include the CableCARD interface specifications (the “**OpenCable Interface Specifications**”), and functional requirements for Host Devices (as defined below) using the interface (the “**Core Functional Requirements**”) as defined below;

WHEREAS, CableLabs has the rights to certain scrambling technology required for implementation of the OpenCable Specifications known as DFAST, portions of which are embodied in a U.S. patent and foreign equivalents;

WHEREAS, CableLabs desires to grant licenses to the DFAST scrambling technology to allow manufacturers to create Host Devices (as defined below) that are interoperable and Licensee desires to acquire a license to the DFAST scrambling technology for the purpose of developing Prototypes (as defined below) and/or creating and distributing Host Devices as called for in the OpenCable Specifications;

WHEREAS, CableLabs desires to condition the grant of a production license hereunder on CableLabs’ certification that the Host Devices comply with the OpenCable Specifications, and the requirements of this Agreement, and that such devices are also interoperable in order to foster retail availability.

NOW THEREFORE, in consideration of the terms and conditions set forth in this Agreement, the parties hereby agree as follows:

AGREEMENT

1. Definitions.

1.1 “Activation” means that the Licensee has executed an activation notice referenced in Section 3.2 and in the form of Exhibit D that is required to activate the Licensee’s manufacturing license.

1.2 “Affiliate” means any corporation, partnership, limited liability company, business trust or other business organization directly or indirectly owned or controlled by Licensee or under common control with Licensee, with control being evidenced by ownership or control of equity interests representing at least 50% of the total voting power or value of such entity.

1.3 “Cable Operator” means any cable operator that CableLabs identifies on its <www.cablelabs.com> website as a member and any other cable operator that provides CableCARDS to customers in connection with the provision of cable services in North America.

1.4 “CableLabs Technology” means:

(a) the OpenCable Specifications and the DFAST Technology, provided however, that CableLabs Technology does not include any third party proprietary technology referenced in or required by the OpenCable Specifications, such as DES, DTCP, or MPEG-2; and

(b) user manuals and other written materials (whether in print or electronic form) that relate to the OpenCable Specifications and/or the DFAST Technology that are provided by CableLabs hereunder, including materials for design (for example, flow charts and principles of installation, configuration, administration, and operation) and machine readable text or graphic files subject to display or print-out (“**Documentation**”).

1.5 “Certify” means the CableLabs created process to verify that a proposed Host Device meets the Certification Criteria set forth in Exhibit A attached hereto (a “**Certification**”) as may be reasonably amended from time to time by CableLabs in accordance with changes made to the OpenCable Specifications made following the OpenCable Change Process (as defined below) and as disclosed to Licensee. “Certified” means that the Host Device has obtained Certification.

1.6 “Compliance Rules” mean the rules described on Exhibit C hereto which apply to Host Devices and are for the purpose of preventing the unauthorized copying of Controlled Content.

1.7 “Controlled Content” means content that has been transmitted from the headend with the encryption mode indicator (“**EMI**”) bits set to a value other than zero, zero (0,0), or with copy control information (“**CCP**”) otherwise marked to indicate restrictions on access, copying, distribution, or usage rights.

1.8 “Core Functional Requirements” mean those OpenCable functional requirements for Host Devices as specified in the OpenCable Host 2.0 Core Functional Requirements Specification (OC-SP-HOST2.0-CFR-I01-040831), the OpenCable Unidirectional Receiver Core Functional Requirements Specification (OC-SP-OCUR-CFR-I01-XXXXXX), and the OpenCable Host

Device Core Functional Requirements Specification (OC-SP-HOST1.0-CFR-C01-040629; now “closed”) and other new versions that may be added as described below in Section 4.

1.9 “Derivative Work” means any work that is based upon CableLabs Technology, other than the OpenCable Specifications, such as a revision, improvement, enhancement, modification, translation, abridgment, condensation, expansion, collection, compilation or other form in which such CableLabs Technology may be recast, transformed, ported or adapted and that, if prepared without authorization of CableLabs, would constitute infringement of the CableLabs Technology.

1.10 “DFAST Technology” means the Licensed Patent(s) collectively with the Licensed Know-How.

1.11 “Host Device” means a set-top terminal, television or navigation device for selecting Services on a program by program basis and that conforms to the OpenCable Specifications, and utilizes the CableLabs Technology.

1.12 “Host Profile” means a Host Device designated as one of the variations of a Host Device in the Core Functional Requirements of the OpenCable Specifications, and including such other Host Profiles as CableLabs may include in the OpenCable Specifications from time to time.

1.13 “Intellectual Property Rights” means all intellectual property rights worldwide arising under statutory law, common law or by contract, and whether or not perfected, including, without limitation, all (a) patents, patent applications and patent rights, (b) rights associated with works of authorship including copyrights, copyright applications, copyright registrations, mask work rights, mask work applications, mask work registrations, and Derivative Works of the foregoing, (c) rights relating to the protection of trade secrets and confidential information, (d) trademarks, trade dress, trade name, design patent and service mark rights, whether or not registered and (e) divisions, continuations, continuations in part, renewals, reissues and extensions of the foregoing (as and to the extent applicable) now existing, hereafter filed, issued or acquired.

1.14 “Issued” means, with respect to versions of the various OpenCable Specifications, that is identified by CableLabs as a current issued version. Upon becoming an Issued specification, the specification is no longer considered a draft specification; that is, Issued specifications shall not include draft versions of specifications released from time to time by CableLabs.

1.15 “Licensed Components” means component products which utilize the DFAST Technology and which are designed for incorporation into Prototypes, or Certified Host Devices.

1.16 “Licensed Know-How” means all know-how, associated technology, trade secrets, copyrighted works, reference source code implementations, shared secret keys, Diffie-Hellman system parameters, encryption and decryption keys, software development tools, methodologies, processes, technologies or algorithms, test data sets and test cases and other implementations of technology that CableLabs shall deliver to Licensee to assist in incorporating the DFAST Technology into Licensed Components, Prototypes, or Host Devices.

1.17 “Licensed Patents” means U.S. Patent No. 4,860,353, any division, continuation or continuation in part of the foregoing patent, any patent reissuing on or reissuing pursuant to a reexamination of the foregoing patent and all foreign equivalents.

1.18 “Licensed Product” means the Licensee’s Host Device and includes Licensed Components.

1.19 “OpenCable Change Process” means the process described on Exhibit E for making changes to the OpenCable Specifications.

1.20 “OpenCable Interface Specifications” mean the OpenCable CableCARD Interface Specification and the OpenCable CableCARD Copy Protection System Specification (including the multi-stream versions thereof), as posted on the <www.opencable.com> website.

1.21 “PICS” means the Protocol Implementation Conformance Statements used as tests to Certify Host Devices.

1.22 “Prototype” means a pre-production model of a device (including Host Devices, test tools, or components) that utilizes the CableLabs Technology and is not made commercially available.

1.23 “CableCARD” means an individual addressable device for authorizing and deauthorizing the decryption or descrambling of Services and individual programs and events delivered through the Host Device on a Service by Service or individual program or event basis that conforms to the OpenCable Interface Specifications and utilizes the CableLabs Technology.

1.24 “Robustness Rules” mean the rules described on Exhibit B hereto which apply to Host Devices and are for the purpose of resisting attempts to modify CableCARDS or Host Devices to defeat the functions of the OpenCable Specifications or the Compliance Rules.

1.25 “Service” means video, audio, or data signals (other than signals delivered via DOCSIS protocols), whether in analog or digital format, transmitted over the cable system to (or from) the Host Device, for the purposes of effectuating the reception or transmission of information, entertainment, or communications content.

1.26 “Test Tools” means devices which have the capability to utilize the DFAST Technology and which have as their purpose the testing or verification of the performance of Host Devices and their Prototypes, and including the debugging, integration or tuning of such.

1.27 “Highly Confidential Information” shall have the meaning as described in Section 7.1 hereof.

1.27 “Have Made Parties” shall have the meaning as described in Section 2.5 hereof.

1.28 “DFAST Agreement” shall mean the most recent version of the “DFAST Technology License Agreement for Unidirectional Digital Cable Product” as found at <http://www.cablelabs.com/udcp/>.

1.29 “Changes” shall have the meaning as described in Section 4.1 hereof.

2. Licenses, Grants, and Restrictions.

2.1 Limited Development Right. Upon the execution of this Agreement and payment of the License Fee, subject to the applicable terms and conditions set forth herein, Licensee shall have the limited right and license:

(a) to develop, make, have made, use and test no more than one hundred Prototype Host Devices of each Host Profile, and/or one hundred Test Tools and one hundred Licensed Components which are designed for incorporation into Prototypes, and to possess, reproduce and otherwise use the CableLabs Technology (with evaluation secrets) for such purposes,

(b) to distribute such Prototypes only to entities who have obtained a license from CableLabs for the use of the CableLabs Technology (the “**CableLabs Technology Licensees**”),

(c) to exchange information about and test interoperability with the DFAST Technology only with other CableLabs Technology Licensees, and

(d) to distribute such Prototypes to Cable Operators and other cable television multiple system operators in North America (including the United States and Canada) and other entities for the purpose of field trials and technology evaluation and not for retail, provided that no Highly Confidential Information is revealed in such distribution.

Sections 2.2, 2.3, 2.4, 2.5, 5 and 9.2(c), and Exhibits B and C, shall not apply with respect to Prototypes or the rights granted under this Section 2.1.

2.2 Full License for CableLabs Technology. Subject to the terms and conditions set forth herein, including without limitation the Robustness Rules and the Compliance Rules, and upon the delivery of the Activation Notice to CableLabs in accordance with Section 3.2 hereof, CableLabs hereby grants to Licensee, and Licensee hereby accepts from CableLabs, a non-exclusive, non-transferable (except as set forth in Section 14.7 hereof) world-wide license under the Intellectual Property Rights owned by, or licensable from, CableLabs in the CableLabs Technology to:

(a) make, have made, use, sell, offer to sell, import and otherwise distribute Certified Host Devices utilizing the CableLabs Technology;

(b) practice any method or process under the CableLabs Technology solely as necessary for the manufacture or use thereof in accordance with the terms and conditions of this Agreement;

(c) make, have made, use, sell, offer to sell, import and otherwise distribute Derivative Works made by Licensee of the CableLabs Technology, *provided that* Licensee’s rights under this Section 2.2(c) shall be exercised solely in connection with the creation, manufacture and distribution of the Certified Host Devices;

(d) use, reproduce, and modify the Documentation as reasonably required in connection with Licensee’s creation of Derivative Works in accordance with this Agreement;

(e) distribute the modified Documentation to customers in connection with the distribution of Certified Host Devices in accordance with this Agreement, provided that such modified Documentation shall not reveal any confidential information contained in the CableLabs Technology; and

(f) possess, reproduce and otherwise use the CableLabs Technology in connection with the other rights granted under Section 2;

(g) provided that, notwithstanding the licenses granted herein, the distribution of Certified Host Devices shall be limited to North America.

(h) notwithstanding the license granted above, Licensee shall only include the CableLabs Technology (with production secrets) in a maximum of twenty (20) Host Devices prior to Certification of such Host Device, for the sole purpose of submitting such Host Devices to CableLabs for Certification.

2.3 Limited Right for Test Tools. Licensee shall have the limited right to make, have made, use, sell, offer to sell and otherwise distribute Test Tools, subject to the following limitations:

(a) Licensee shall distribute the Test Tools containing the DFAST Technology only to CableLabs Technology Licensees or Have Made Parties (subject to the restrictions of confidentiality identified in Section 7). Licensee must separately maintain records of sales of Test Tools, and Licensee shall, upon request, provide the names and contact information of each purchaser to CableLabs.

(b) Licensee shall limit the use of Test Tools for the purposes of ensuring proper operation, testing, debugging, integration and tuning. For the purposes of this Section 2.3(b), (i) "testing" shall mean a process of evaluating a Prototype to ensure proper operation, (ii) "debugging" shall mean a process of finding the cause of an error in a Prototype or Licensed Product, including analysis for the purpose of exposing possible design flaws, (iii) "integration" shall mean a process of evaluating the performance of a Prototype or a Licensed Product with a CableCARD or other Host Devices to ensure that they properly operate together; and (iv) "tuning" shall mean a process of evaluating and improving a Prototype or Licensed Product to work more efficiently with a CableCARD or other Host Devices.

2.4 Limited Right for Licensed Components. Licensee shall have the limited right to make, have made, use, sell, offer to sell, import and otherwise distribute Licensed Components, subject to the following limitation: Licensee shall distribute the Licensed Components containing DFAST Technology only to CableLabs Technology Licensees and Have Made Parties. Licensee must separately maintain records of sales of Licensed Components, and Licensee shall, upon request provide the names and contact information of each purchaser to CableLabs.

2.5 Have Made Obligations. Licensee shall have the right under licenses granted under Sections 2.1-2.4 to have third parties ("Have Made Parties") make (including for the avoidance of doubt, design) Prototypes, Licensed Products, Licensed Components, and Test Tools, or subparts thereof for the sole account of Licensee, provided that with respect to

Licensed Products, Licensed Components, and Test Tools, or subparts thereof they (a) are to be sold, used, leased, or otherwise disposed of, by or for Licensee under the trademark, tradename, or other commercial indicia of Licensee or an entity to which Licensee is authorized hereunder to sell such Licensed Products, Licensed Components, or Test Tools and (b) are made by such Have Made Parties using designs or specifications supplied by or for Licensee. Licensee shall be fully responsible for such Have Made Parties' compliance with all terms of this Agreement as if Licensee itself were performing such manufacture. Have Made Parties must be (i) CableLabs Technology Licensees, (ii) Affiliates of Licensee, or (iii) bound in writing to an applicable non-disclosure agreement with Licensee on terms that are no less stringent than the terms set forth in Section 7 hereof. In addition, such Have Made Parties must be contractually bound to the Third Party Beneficiaries provisions set forth in Section 14.1 of this Agreement if such Have Made Party has access to Highly Confidential Information, or other information or materials from which Highly Confidential Information could reasonably be derived. Licensee agrees and acknowledges that the fact that it has contracted with a Have Made Party shall not relieve Licensee of any of its obligations under this Agreement. Other than on behalf of Licensee, and under the foregoing terms, Have Made Parties shall receive no license, sublicense, or implied license with respect to the CableLabs Technology or any copyrights in the OpenCable Specifications.

2.6 Use of CableLabs Mark. CableLabs hereby grants to Licensee a non-exclusive license to use (at Licensee's option) the "CableLabs Certified®" certification mark (the "**Mark**") on any Certified Host Device, on packaging or advertising for the same, and on Licensee's website, and Licensee shall use the Mark only in reference to Host Devices that have been Certified in accordance with the provisions of this Agreement. CableLabs may, from time to time, establish a fair, reasonable and nondiscriminatory royalty (not to exceed \$.10 per unit) to be paid for the use of the Mark on Licensed Products, taking into account in establishing such royalty CableLabs' not for profit status. Licensee shall not alter the Mark in any manner, including the size, typeface, proportions, colors, elements, or location of any of the text in relation to the other elements of the Mark. Licensee may not animate, morph, or otherwise distort the perspective or appearance of the Mark or translate elements of the Mark into another language or change them to another character set, without prior written approval of CableLabs. The Mark may be used in the form of a 1 inch by 1 inch label affixed to the Licensed Product or may be printed or engraved on the Licensed Product using "camera ready" artwork supplied by CableLabs. If Licensee's logo on the Licensed Product is smaller than one inch square, the Mark may be proportionally reduced so as not to be longer along either dimension than the longest dimension of Licensee's logo. Larger sizes of the Mark may be used on packaging or marketing materials for Licensed Products. Licensee shall not use the Mark on materials that disparage CableLabs, its affiliated companies, or its products or services; or that violate any state, federal, or foreign law or regulation. Licensee shall include the following notice on all marketing materials that refer to CableLabs or display products bearing the Mark:

"CableLabs Certified" is a certification mark of Cable Television Laboratories, Inc. and may not be used without authorization.

2.7 No Other Licenses Granted; Ownership. Except as provided herein, no license is granted by CableLabs, either directly or by implication, estoppel, or otherwise, and any rights not expressly granted to Licensee hereunder are reserved by CableLabs. Except for the limited license granted under Section 2, no license is granted for any commercial Host Device that does

not comply with the OpenCable Specifications, the Robustness Rules, the Compliance Rules and the Certification Criteria.

All Intellectual Property Rights (except for Derivative Works made by Licensee which shall be owned by Licensee) in the CableLabs Technology shall be and remain the sole property of CableLabs or such companies that have licensed the CableLabs Technology to CableLabs, and Licensee shall have no rights or interest in such CableLabs Technology other than the rights granted to Licensee under this Agreement. CableLabs retains all right, title and interest in and to the Licensed Know-How used in connection with the CableLabs Technology that are trade secrets or proprietary information of CableLabs or its licensors, members, or affiliates, or are otherwise owned or licensed by CableLabs.

3. Delivery of CableLabs Technology.

3.1 Delivery of CableLabs Technology. CableLabs agrees to deliver to Licensee one copy of the Licensed Know-How and the associated Documentation which shall include evaluation information only and not production information, for limited development purposes only in accordance with Section 2.1 hereof, within ten days of the receipt by CableLabs of the information required by Paragraphs 2 and 3 of Exhibit D, Activation Notice (provided that Licensee shall be required only to provide such information referenced in the Activation Notice and not the Activation Notice itself). Upon the request of Licensee, CableLabs shall supply Licensee with one or more additional copies of the Licensed Know How and such associated Documentation as may be required for Licensee's operations. Licensee shall not make further copies of any Licensed Know How or Documentation (except as allowed under Section 2.2 hereof) provided pursuant to this Section 3.1, and shall treat all such information strictly in accordance with the provisions of Section 7.1. CableLabs reserves the right to charge a commercially reasonable administrative fee in connection with such additional copies.

3.2 Activation. At any time after Licensee has executed the Digital Certificate Authorization Agreement for the applicable Host Device, Licensee may execute the Activation Notice attached hereto as Exhibit D in accordance with the procedures set out therein. Prior to Activation, except as permitted under Section 2.1, Licensee is not licensed to distribute any products or components hereunder, and the provisions of Sections 2.2, 2.3, 2.4, 5, 9.2(c) and Exhibits B and C shall only be applicable after Activation. CableLabs agrees to deliver to Licensee one copy of the Licensed Know-How and the associated Documentation containing full production information, within ten days of the receipt by CableLabs of the Activation Notice.

4. Change Management.

4.1 Specifications. The OpenCable Specifications may be amended from time to time by CableLabs, but only in accordance with the OpenCable Change Process. Changes may be made for the purpose of correcting any errors or omissions or clarifying, but not materially amending, altering or expanding the same ("Editorial Changes"); altering the existing requirements or adding new requirements ("Minor Changes"); and creating new Host Profiles and/or new variations of the OpenCable Specifications ("New Specifications") (collectively, "Changes"). New Specifications may include, by way of example and not of limitation, changes that would require new technical features not included in previous OpenCable Specifications, or that would materially increase the cost or complexity of Host Devices. In adopting any

Changes, CableLabs shall consider, among other things, the economic burden that Licensee will bear as a result of implementing such change, taking into account such factors as cost to implement, production cycles, backward compatibility and existing inventory of Licensee, the cumulative effects of Changes on software architecture, as well as consumer choice, interest in innovation, economic burden on the Cable Operator, and developments in technology. Any change in the Issued OpenCable Specifications that would effectively amend the Compliance Rules shall be subject to the terms of Section 4.4.

4.2 Participation in Change Process. Licensee shall be provided notice of and a reasonable opportunity to review and comment on any proposed changes to OpenCable Specifications. CableLabs represents and warrants that all OpenCable Specifications are subject to the OpenCable Change Process as more fully described in Exhibit E hereto. The OpenCable Change Process shall include the ability of Licensee to draft and submit ECRs, and for OpenCable NDA participants (including Licensee) to comment on ECOs, and have the opportunity to participate in OpenCable working groups. In addition, if Licensee disagrees with a decision to either issue an ECR or to dismiss an ECR, Licensee shall have the opportunity to discuss the matter with a senior member of CableLabs management, and CableLabs shall give due consideration to Licensee's concerns with regard to the proposed ECR. Parties to the OpenCable Change Process may also include video programming providers that provide copyrighted works for transmission to Host Devices and the copyright owners of such work (collectively, "**Content Providers**"). It is understood and agreed that all interested parties described above shall have executed a version of the OpenCable Confidential Information Access Agreement that is substantially in the same form as that executed by Licensee, before being afforded access to any proposed revisions.

4.3 Effect of Changes.

(a) **Existing Products.** Licensee may continue to manufacture, use, sell, or distribute any previously Certified Product (and may continue to seek Certification pursuant to the paper submission process described in Section 4.1.3 of the Certification Wave Guidelines), notwithstanding any Changes or sunseting of Certification. Changes or sunseting shall not trigger any obligation to re-Certify a previously Certified product, to Certify a product not previously subject to the Certification Criteria, nor to modify or re-label Certified Products.

(b) **Editorial Changes.** Editorial Changes shall become effective on the date specified in the ECN. Editorial Changes shall not interfere with the capabilities of previously Certified products.

(c) **Minor Changes.** Minor Changes shall become effective on a commercially reasonable date defined by the applicable ECR Working Group (as specified in the ECN) after reasonably considering the impact to vendors with products that may be affected by the Minor Change. The commercially reasonable effective date established by the applicable ECR Working Group may be altered as follows: (i) any Changes requiring a change in silicon, or the addition of a component where the lead time for acquiring the component is longer than ninety (90) days shall not become effective in less than twelve (12) months, unless otherwise agreed by Licensee or unless reasonably designated by CableLabs as being critical to preventing theft of service, harm to the network or breach of the Compliance Rules or Robustness Rules or to safety; and (ii) Licensees who have provided CableLabs with 120 days written notice of their

intent to bring products to CableLabs for Certification at the next Certification Wave will *not* be required to (but may choose to) implement such Minor Changes in such products for such Certification Wave, unless such Minor Changes have been reasonably designated by CableLabs as being critical to preventing theft of service, harm to the network or breach of the Compliance Rules or Robustness Rules or to safety. Minor Changes shall not interfere with the capabilities of previously Certified products.

(d) Updates to Issued Specifications. Minor Changes and Editorial Changes (in the form of ECNs) will be aggregated and added to existing Issued OpenCable Specifications from time to time.

(e) Subsequent Versions of the OCAP Specification. Licensee shall have the right to license and deploy in its products the same version of the tru2way Middleware at the same time as such version is commercially available for use and deployment by the Founders.

(f) New Specifications. New Specifications are effective on the date they are first published as Issued Specifications. New Specifications shall not automatically obsolete existing specifications.

(g) Sunsetting of Certification. CableLabs reserves the right to discontinue Certification (except pursuant to the paper submission process described in Section 4.1.3 of the Certification Wave Guidelines) of any Host Profile after December 31, 2004 as follows:

(i) if CableLabs is the only entity that Certifies products designed to the relevant Host Profile, after the earlier of (1) three years from the date the Issued Specification is published for that Host Profile, or (2) the lapse of one year during which no product designed to such Host Profile has been submitted to CableLabs for certification; provided that calculation of such one year period shall not commence until the associated PICS are made available to manufacturers who have signed the OpenCable Confidential Information Access Agreement; or

(ii) if there is an appropriately qualified third-party laboratory that Certifies products designed to the relevant Host Profile (an “**Independent Lab**”), after the earlier to occur of (1) 18 months from the date the Issued Specification is published for that Host Profile, or (2) the lapse of one year during which no product designed to such Host Profile has been submitted to CableLabs or an Independent Lab for certification; provided, that if such Independent Lab ceases to Certify products designed to the relevant Host Profile prior to date on which CableLabs would be permitted to discontinue certification under subsection (i) above, CableLabs shall resume Certification until the date specified by (i) above.

(iii) CableLabs shall use commercially reasonable efforts to cause any Independent Lab to continue to conduct certification of Host Profiles until the lapse of one year during which no product designed to such Host Profile has been submitted to such Independent Lab for certification. If CableLabs is unable to obtain such agreement from any Independent Lab, CableLabs shall resume certification until the date specified by (i) above.

(iv) Licensee may only obtain Certification for products designed to OpenCable Specifications effective on or after the date this Agreement was signed.

4.4 Dispute Resolution. In the event that Licensee reasonably, and in good faith, objects to Changes (including the effective date of such Changes), or the sunset of Certification, it shall provide written notice of such objection to CableLabs (the “**Objection Notice**”). The parties shall attempt in good faith to resolve the dispute within ten (10) days following CableLabs’ receipt of such Objection Notice. In the event that the parties are unable to resolve the dispute in such ten-day period, the matter shall be escalated to senior executives of each party, designated by each party, who shall attempt in good faith to resolve the dispute within ten (10) days following their designation and no more than thirty (30) days following CableLabs’ receipt of the Objection Notice.

4.5 Revision to Certification Criteria. When required by Changes described in this Section 4, CableLabs shall also revise the Certification Criteria, including the PICS, Interoperability Test Plan and the Acceptance Test Plan, to accommodate such Changes. Prior to any revision of the Certification Criteria, Licensee shall be given notice of, and the opportunity to comment on, such proposed revision, at least sixty days prior to the date the revised Certification Criteria take effect. CableLabs shall in good faith consider Licensee’s comments. It is understood and agreed that all interested parties described above shall have executed a version of the OpenCable Confidential Information Access Agreement that is substantially in the same form as that executed by Licensee, before being afforded access to any proposed revisions.

4.6 Revision to Compliance Rules. CableLabs may, from time to time, revise the Compliance Rules to ensure security against theft of service and copy protection. CableLabs shall give Licensee at least sixty days’ notice of any proposed changes to the Compliance Rules. In adopting such changes, CableLabs shall consider, among other things, the economic burden that Licensee will bear as a result of implementing such change, taking into account such factors as cost to implement, production cycles, backward compatibility and existing inventory of Licensee, as well as consumer choice, interest in innovation, and developments in technology. Licensee shall be required to comply with all changes to the Compliance Rules within twelve (12) months after notification of the changes has been sent as specified in this Section 4.6, or, in extraordinary cases, within such shorter or longer period as reasonably specified by CableLabs in accordance with this Section. In the event that Licensee disagrees with a change to the Compliance Rules, or has been denied a request to change the Compliance Rules (e.g., by submitting a new digital output technology), Licensee may use the Dispute Resolution process identified in Section 4.4 hereof.

4.7 Successor Technology. In the event that CableLabs undertakes to define specifications for a successor technology on Digital Cable Systems, and Licensee remains a current party to the OpenCable Contribution Agreement, then Licensee may participate in such undertaking under the terms of said OpenCable Contribution Agreement. The parties shall use commercially reasonable efforts to make such successor technology available under RAND or royalty-free terms. As used in this section, “Digital Cable System” means a cable system required to provide CableCARDS under 47 C.F.R. §76.1204(a)(1) which have one or more channels utilizing QAM modulation for transporting programs and services from its headend to receiving devices.

5. Testing and Certification.

5.1 Testing and Certification. Prior to commercially distributing a Host Device, Licensee shall participate in the CableLabs-sponsored OpenCable interoperability tests for the purpose of verifying that the proposed Host Device conforms in all material respects to CableLabs' Certification Criteria set forth in Exhibit A. Licensee's submission for Certification to CableLabs shall include (a) a written statement confirming that the submitted Host Device meets the Certification Criteria and (b) samples of the applicable Host Device for audit testing by CableLabs. CableLabs shall use best efforts in the utmost of good faith to make the Certification Criteria and the certification process objective, fair and non-discriminatory. CableLabs represents and warrants that all Host Devices, including those distributed by Cable Operators, shall be subject to the interoperability tests as described herein. Licensee acknowledges and agrees that any production Host Devices prior to completion of testing and Certification contemplated by this Section 5.1 shall be undertaken at Licensee's sole risk.

5.2 Flexible Implementations. Nothing in this Agreement shall preclude Licensee from including in a Host Device additional features or functionalities not specified in the OpenCable Specifications so long as (a) such addition of features and/or functionalities does not (i) cause physical harm to the network or disruption of service to any Host Device or CableCARD, (ii) impede or impair the delivery of any services offered over the cable system to cable subscribers, (iii) jeopardize the security of any services offered over the cable system or (iv) impede the legal rights of the Cable Operator to prevent theft of service; (b) the Host Device meets all applicable Compliance and Robustness Rules and (c) the Host Device is otherwise Certified. Such devices may include, but are not limited to, Host Devices with an integrated recording device that otherwise meet the requirements of this Agreement. It is further understood and agreed that nothing in this Agreement shall affect any product manufactured by Licensee other than Host Devices, and that this Agreement shall in no way impose any limit on the types of devices that may be manufactured by Licensee.

5.3 Limited Implementations. Nothing in this Agreement shall preclude Licensee from deleting the home digital network interface (i.e. the IEEE 1394 interface) from a Host Device (including, but limited to Host Devices built to the unidirectional Host Profiles) that otherwise complies with the OpenCable Specifications, so long as it is allowed for that Host Profile, and the Host Device meets all applicable Compliance and Robustness Rules.

6. Payments; Accounting Requirements.

6.1 License Fee. As consideration for the licenses granted hereunder, Licensee agrees to pay CableLabs a one-time, non-refundable license fee of \$5,000 (the "**License Fee**") within thirty days of the Effective Date. If Licensee has previously paid a fee to CableLabs for an evaluation license for the CableLabs Technology or has otherwise paid a license fee to CableLabs for the DFAST Technology, no additional License Fee shall be due.

6.2 Certification Fees. CableLabs may, from time to time, establish fees to be paid in connection with Certification of products hereunder. Such fees shall be fair, reasonable and non-discriminatory.

6.3 Applicable Taxes. The License Fee owed by Licensee to CableLabs is exclusive of, and Licensee shall pay, all sales, use, value added, excise, and other taxes (other than income taxes) that may be levied upon either party by taxing authorities in connection with this Agreement, except for taxes based on CableLabs' employees, and shall pay all income taxes that may be levied upon Licensee.

7. Confidentiality of CableLabs Technology.

7.1 Confidentiality of Licensed Know-How. As between CableLabs and Licensee all of the Licensed Know-How is confidential and proprietary to CableLabs or the companies that have licensed to CableLabs. Licensee shall not use or disclose Licensed Know-How in any manner whatsoever other than in connection with the rights granted in Section 2 hereof or as otherwise permitted by this Section 7.1. Licensee shall implement and maintain security measures in order to keep the Licensed Know-How confidential which are at least as rigorous as Licensee employs for its own confidential information. Subject to the requirements of this Section 7.1, Licensee may disclose Licensed Know-How that does not constitute Highly Confidential Information (as defined below) to its Affiliates, subcontractors, consultants, agents, employees, customers and representatives who have a need to know. Licensee shall implement and maintain security measures for reference source code implementations, shared secret keys, Diffie-Hellman system parameters, encryption and decryption keys, private keys and DFAST source and library files that contain DFAST constants (collectively, "**Highly Confidential Information**"), which are in accordance with commercial practices for managing keys, such measures to include, at a minimum, the following:

(a) Licensee shall transmit the Highly Confidential Information only to its Affiliates, subcontractors, consultants, agents, employees, customers and representatives who need to know the information, who are informed of the confidential nature of the information, and, in the case of Affiliates, agents, representatives, customers, subcontractors and consultants who have agreed in writing to abide by the terms and conditions of this Section 7.1. Licensee shall identify (by title) individuals with access to Highly Confidential Information to CableLabs upon request.

(b) Licensee shall maintain a secure location on its premises to be identified to CableLabs in which any and all Highly Confidential Information shall be stored. Such secure location shall be accessible only by authorized employees who shall be required to sign in and out each time such employees visit such secure location. When Highly Confidential Information is not in use, such information shall be stored in a locked safe at such secure location. Licensee may store Highly Confidential Information at more than one secure location with the prior approval of CableLabs, which approval shall not be unreasonably withheld.

(c) Licensee shall maintain a security log of periodic tests of security, shipments of Highly Confidential Information from one secure location to another (if applicable), and breaches of security at all secure locations. Licensee shall reasonably cooperate with CableLabs and its employees and agents to maintain the security of Highly Confidential Information, including by promptly reporting to CableLabs any thefts or Highly Confidential Information missing from Licensee's possession.

(d) CableLabs (or, upon request by Licensee, a mutually agreed third-party auditor) shall have the right to review, upon five (5) business days notice, or such earlier time as may be reasonable and required due to special circumstances, the implementation of all security measures at the secure location(s) required hereunder for the Highly Confidential Information no more frequently than once per year (unless CableLabs has a good faith belief that the Highly Confidential Information has been, or will be, compromised in any manner) at reasonable times as agreed between Licensee and CableLabs, subject to execution of a mutually agreed upon reasonable non-disclosure agreement prior to CableLabs' notice to Licensee that it intends to conduct or have a third-party auditor conduct an audit under this Section 7.1(d). Should Licensee prefer that such review be conducted by a third-party auditor, Licensee and CableLabs may agree upon one or more acceptable third-party auditors and a reasonable non-disclosure agreement to be executed by the third-party auditor, prior to CableLabs' notice to Licensee that it intends to conduct or have a third-party auditor conduct an audit under this Section 7.1(d). For avoidance of doubt, if CableLabs and Licensee have not agreed upon a non-disclosure agreement prior to conducting an audit under this Section 7.1(d), such audit shall proceed under a non-disclosure agreement substantially similar to CableLabs' Confidential Information Access Agreement (located at http://www.opencable.com/downloads/OC_access_agreement.pdf), conformed to reflect Licensee as the disclosing party, the auditors as the receiving party and the use of the information to be limited to the performance of the audit. CableLabs and Licensee hereby consent to use of the following third-party auditors: Verisign.

7.2 Notification of Unauthorized Use or Disclosure. Licensee shall notify CableLabs immediately upon discovery of any unauthorized use or disclosure of Licensed Know-How, and will cooperate with CableLabs to seek to regain possession of the disclosed Licensed Know-How and to prevent its further unauthorized use or disclosure.

7.3 Liability for Breach of Confidentiality. Licensee shall be responsible for any breach of Sections 7.1 and 7.2 by its Affiliates, subcontractors, consultants, agents, employees, customers (other than CableLabs members), representatives, former Affiliates, former agents, former employees, former customers (other than CableLabs members) and former representatives, provided that no obligation of confidentiality is imposed on information which (i) is already in or subsequently enters the public domain through no breach of Licensee's obligations hereunder and which CableLabs failed to remove from public availability or to enjoin such public disclosure within 90 days after the date such information is or becomes generally known as set forth above ; (ii) is known to Licensee or is in its possession without conduct which would constitute a breach of Licensee's obligations hereunder prior to receipt from CableLabs; (iii) is developed independently by Licensee by persons who have not had, either directly or indirectly, access to or knowledge of Licensed Know-How; or (iv) is lawfully received by Licensee from another party without a duty of confidentiality to CableLabs. Notwithstanding anything in Sections 7.1 and 7.2 to the contrary, Licensed Know-How of CableLabs may be disclosed by Licensee pursuant to the order or requirements of a court or governmental administrative agency or other governmental body of competent jurisdiction, provided that (x) CableLabs has been notified of such a disclosure request sufficiently in advance to afford CableLabs reasonable opportunity to obtain a protective order or otherwise prevent or limit the scope of such disclosure to the extent permitted by law and (y) Licensee cooperates in good faith with such efforts by CableLabs. The obligations under Sections 7.1 and 7.2 shall terminate three years after the last commercial use of the DFAST Technology by Licensee or any

CableLabs licensee of the DFAST Technology; provided that Sections 7.1(b) through 7.1(d) shall cease to apply when Licensee has returned all tangible embodiments of Licensed Know-How in its possession to CableLabs.

8. Term and Termination.

8.1 Term. The term of this Agreement shall be the life of U.S. Patent No. 4,860,353, and shall be extended automatically thereafter indefinitely on a year by year basis unless earlier terminated according to its terms; provided that under no circumstances shall the term of the license for the Licensed Patents granted pursuant to Section 2 of this Agreement exceed the patent term of the last of the Licensed Patents to expire.

8.2 Termination of Licenses for Cause. CableLabs may terminate the licenses granted hereunder for any specific model of Host Device that has not been Certified, due to a failure to meet the applicable Certification Criteria, or that materially fails to satisfy the Robustness Rules or the Compliance Rules that were in effect at the time the Host Device was Certified. However, CableLabs may only terminate the licenses pursuant to this Section 8.2 after CableLabs has (a) thoroughly evaluated the potential breach with respect to the relevant model of Host Device, (b) consulted with Licensee regarding the problem, (c) given written notice to Licensee of CableLabs' intent to terminate the license with respect to such model of Host Device, and (d) provided Licensee with a reasonable opportunity to cure the breach (where such breach is capable of being cured) and such breach remains uncured for sixty days following the date of such notice, or, if such breach cannot by its nature be cured within such period, if Licensee has not commenced, and thereafter at all times diligently pursues, commercially reasonable efforts to cure as soon as possible thereafter. In circumstances where Licensee's failure subjects Controlled Content to an unreasonable risk of unauthorized copying, the maximum period for the activities in clauses (a), (b), (c) and (d) of the preceding sentence shall be forty-five days and the cure period under clause (d) of the preceding sentence shall be thirty days. Termination of the licenses granted for any specific model of Host Device shall not affect the licenses granted for any other model.

8.3 Termination of Agreement for Cause. CableLabs may terminate this Agreement in the event that CableLabs provides notice of Licensee's material breach of any representation, warranty or covenant set forth in Section 2.2, 6.1, 7.1 or 9.2 hereto and (where such breach is capable of being cured) such breach remains uncured sixty days following the date of such notice.

8.4 Termination by Licensee. Licensee may terminate this Agreement at any time, whether before or after Activation by Licensee upon written notice to CableLabs.

8.5 Effect of Termination. Upon the termination of the licenses granted hereunder for any specific model of Host Device pursuant to Section 8.2, Licensee may no longer make, have made, use, sell, import or distribute such model of Host Device, use the CableLabs Technology therewith, nor use the Mark in connection with such model of Host Device, except that, if the termination did not result from Licensee's failure to satisfy the requirements of the Robustness Rules or the Compliance Rules, Licensee may sell or distribute any remaining Certified Host Devices provided that, with respect to such Certified Host Devices that remain in the possession or under the control of Licensee, the Mark may not be used. End user licenses properly granted

by Licensee in conjunction with the sale or distribution of a Certified Host Device by Licensee pursuant to Section 2.2 prior to the date of termination shall remain in full force and effect. Unless otherwise stated herein, no termination of this Agreement, whether by CableLabs or by Licensee, or termination of any license granted hereunder shall relieve either party of any obligation or liability accrued hereunder prior to such termination, or rescind or give rise to any right to rescind anything done by either party prior to the time such termination becomes effective nor shall the survival provisions of Section 14.13 be affected by such termination.

8.6 DFAST. At any time after Licensee executes a DFAST Agreement, it may, upon notice to Cablelabs, transfer to the DFAST Agreement any Unidirectional Digital Cable Products (as defined in the DFAST Agreement) that are then being designed or manufactured under this Agreement, without terminating this Agreement. In such event, the terms of the DFAST Agreement shall apply with respect to such products from the date of notice, and this Agreement (including provisions of this Agreement which by their terms survive expiration or termination of this Agreement) shall have no further force and effect with respect to such products. Without limiting the foregoing, Licensee's submission of a product for execution of the "Joint Test Suite" for certification under both the DFAST Agreement and this Agreement or its delivery of self-verification (as distinguished from self-certification, which is conducted under this Agreement) documentation shall be deemed "notice" for purposes of this Section 8.6.

9. Representations, Warranties, Covenants and Disclaimers.

9.1 CableLabs. CableLabs represents, warrants and covenants that:

(a) CableLabs owns all right and title to the CableLabs Technology, or otherwise has the right to grant the license thereof, and to the best of CableLabs' knowledge, free of any claim or other encumbrance of any third party. None of the CableLabs Technology is or ever has been declared invalid or unenforceable, or is the subject of a pending or threatened action for opposition, cancellation, declaration of invalidity, unenforceability or misappropriation or like claim, action or proceeding;

(b) Without investigation, it is not aware of any notice or claim, threatened or pending, that the use of the CableLabs Technology in accordance with the terms of this Agreement infringes any third party's Intellectual Property Rights. Otherwise, the CableLabs Technology is licensed on an "as is" basis;

(c) CableLabs has authorized the person who has signed this Agreement for CableLabs to execute and deliver this Agreement to Licensee on behalf of CableLabs; and

(d) This Agreement constitutes a valid and binding obligation of CableLabs; enforceable according to its terms.

9.2 Licensee. Licensee represents, warrants, and covenants that:

(a) Licensee has authorized the person who has signed this Agreement for Licensee to execute and deliver this Agreement to Licensee on behalf of Licensee;

(b) This Agreement constitutes a valid and binding obligation of Licensee, enforceable according to its terms; and

(c) As to each of the Host Devices made under this Agreement, Licensee covenants to CableLabs as follows:

(i) The Host Device, at the time manufactured, contains no integrated circuit, ROM, RAM, software or other device or functionality that:

(1) enables copying or recording of Controlled Content, other than as permitted by the Compliance Rules or

(2) interferes with or disables the ability of a Cable Operator to communicate with or disable a CableCARD or services being transmitted through a CableCARD.

(ii) At the time of manufacture, it will maintain control of content copies consistent with copy control instructions or the encryption mode indicator bits transmitted with digital signals as specified in the OpenCable Specifications.

(iii) At the time of manufacture, it is designed to effectively frustrate tampering and reverse engineering directed towards defeating copy protection requirements in accordance with the Robustness Rules.

(iv) At the time of manufacture, it will not transmit or decode Controlled Content received from the cable television transmission without proper authorization from the Cable Operator.

(v) As used in this section 9.2(c), “**at the time of manufacture**” shall mean at the time of manufacture of the Host Device and shall also include, but is not limited to, any subsequent modifications, upgrades, downloads, modules, plug-ins, or attachments to such Host Device made by or at the direction of Licensee or its Affiliates, or otherwise specifically promoted, marketed, distributed by or at the direction of Licensee or its Affiliates.

(vi) Licensee shall not service any licensed product that it determines to have been modified after manufacture to be non-Compliant.

9.3 Disclaimers. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION 9, EACH PARTY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, (A) ANY WARRANTY THAT THE CABLELABS TECHNOLOGY DOES NOT INFRINGE THE INTELLECTUAL PROPERTY RIGHTS OF ANY OTHER PERSON OR ENTITY, (B) ANY WARRANTY THAT ANY CLAIMS OF THE LICENSED PATENT ARE VALID OR ENFORCEABLE, (C) ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR (D) THAT THE RIGHTS AND LICENSES GRANTED TO LICENSEE HEREUNDER COMPRISE ALL THE RIGHTS AND LICENSES NECESSARY OR DESIRABLE TO PRACTICE, DEVELOP, MAKE OR SELL HOST DEVICES. THE CABLELABS TECHNOLOGY AND ENHANCEMENTS THERETO, AND ANY OTHER ITEMS, DELIVERABLES, OR INFORMATION SUPPLIED BY OR ON BEHALF OF CABLELABS ARE PROVIDED ON AN “AS IS” BASIS.

9.4 Technology Substitution in the Event of a Claim of Infringement. If CableLabs on the one hand or Licensee on the other hand receives notice that the DFAST Technology allegedly infringes a patent of a third party, then CableLabs may, at its sole option and expense, obtain for Licensee the right to use technology that is substantially equivalent to the DFAST Technology, complies with the OpenCable Specifications, or modifications to those specifications, and does not infringe such patent.

10. Limitation of Liability.

In no event shall either party be liable to the other or to any Third-Party Beneficiary (as defined in Section 14.1) for consequential, incidental, special, indirect, punitive or exemplary damages of any kind, including without limitation loss of profit, savings or revenue, or the claims of third parties, whether or not advised of the possibility of such loss, however caused and on any theory of liability, arising out of this Agreement or based on the making, using, selling or importing any product that implements the CableLabs Technology. In no event shall either party be liable to the other or to any Third-Party Beneficiary under any circumstances under this Agreement for any claims that, individually or in the aggregate with all other claims exceed the amounts paid under Section 5 above. Notwithstanding the foregoing, the limitation of liability amount set forth above shall be replaced with a limitation of \$1,000,000 if the claim giving rise to Licensee's liability arises out of Licensee's material breach of the Compliance Rules or Robustness Rules or of Section 7.1 regarding the security or integrity of the Licensed Know-How.

For purposes of this Agreement, a breach shall be "**material**" only if Licensee acted in a manner that is prohibited by this Agreement or failed to perform an obligation required under this Agreement, which act or failure has resulted in or would be likely to result in commercially significant harm to CableLabs, or constitutes a threat to the integrity or security of DFAST Technology, or exposes Controlled Content to unauthorized copying. In addition, the following is a non-exclusive list of circumstances in which there is no material breach of the applicable provisions: (1) if no Licensed Know-How was released to a third party not permitted hereunder to have such information or could reasonably have been expected to have been released to such third party as a result of the breach; (2) if Licensee maintains an internal program to assure compliance herewith (including a program to assure maintenance of inventory, samples, and confidentiality of information for purposes in addition to compliance with this Agreement), the breach was inadvertent or otherwise unintentional, and the breach did not have a material adverse effect on the integrity or security of the DFAST Technology; or (3) if Licensee brought the breach to CableLabs' attention in a timely manner as required by this Agreement and such breach did not have a material adverse effect on the integrity or security of DFAST Technology.

11. Infringement by Third Parties.

Each party shall promptly notify the other in writing of any apparent infringement or misappropriation of the DFAST Technology by any third party that is known to or comes to the attention of such party. The notification shall include an identification of the suspected product and manufacturer or distributor, as the case may be, and shall further include sufficient information of which such party is then aware to enable the other party to establish a showing of infringement.

12. Reporting.

Licensee shall provide CableLabs, a confidential, non-binding, aggregated production forecast of Host Devices made by Licensee hereunder (“Forecasts”). Such Forecasts will be aggregated with other similar licensees, and other licensees of the DFAST Technology (e.g., under the DFAST Agreement) so that Licensee’s individual information is not identifiable. This aggregated information will be used solely to inform Cable Operators of the potential number of Host Devices entering the marketplace; CableLabs shall not, and Cable Operators shall be bound not to, use it for any other purpose. Licensee agrees to provide such monthly forecasts for a rolling five-month period for the term of this Agreement, plus five months. CableLabs acknowledges that the Forecasts may fluctuate and do not create any binding obligations. Licensee is not required under this Agreement to provide any information regarding its production or sales other than these aggregated production forecasts.

As between CableLabs and Licensee, the Forecasts are confidential and proprietary to Licensee. CableLabs shall not use or disclose the Forecasts in any manner whatsoever other than in connection with distribution of aggregated information to the Cable Operators as noted above. CableLabs shall implement and maintain security measures in order to keep the Forecasts confidential which are at least as rigorous as CableLabs employs for its own confidential information. CableLabs may disclose Forecasts to its Affiliates, subcontractors, consultants, agents, employees, customers and representatives who have a need to know and an obligation to keep the Forecasts confidential substantially similar to that applying to Licensee under this Agreement for confidential information (not “Highly Confidential Information”). In no event may Licensee’s forecasts be disclosed or otherwise made available to any other manufacturer or vendor of products intended for use in connection with cable systems.

13. Publicity.

Following the execution of this Agreement, each party may disclose in media releases, public announcements and other public disclosures, including without limitation promotional or marketing materials, the execution of this Agreement and the fact that Licensee is licensing the CableLabs Technology for Prototypes and/or Certified Host Devices. CableLabs may post a signed copy of this Agreement to its website, so long as such copy is redacted to remove references to Licensee’s name and address and any other information that could reasonably reveal Licensee’s identity.

14. Miscellaneous.

14.1 **Grant of Rights to Third Party Beneficiaries.**

(a) Compliance by Licensee with the terms hereof is essential to maintain the value and integrity of the CableLabs Technology. As part of the consideration granted herein, upon Activation, Licensee agrees Content Providers and Cable Operators (collectively, “**Third-Party Beneficiaries**”) shall each be a third-party beneficiary of this Agreement, but only with respect to their right to bring a claim or action against Licensee and/or Have Made Parties to seek injunctive relief and actual damages against the manufacture, distribution, commercial use and sale of Licensee’s products that implement or purport to implement the OpenCable

Specifications that are in material breach of the Compliance Rules, or the Robustness Rules. In any such claim or action, reasonable attorneys' fees shall be awarded to the prevailing party.

(b) Such Third Party Beneficiaries may seek such actual damages (up to the aggregate limits contained in Section 10) only after (i) such Third Party Beneficiary has given to CableLabs written notice of the potential breach; (ii) CableLabs has thoroughly evaluated the potential breach with respect to the relevant Host Device; (iii) CableLabs has consulted with Licensee regarding the problem; (iv) CableLabs has provided Licensee with a reasonable opportunity to cure the breach (where such breach is capable of being cured) and such breach remains uncured for sixty (60) days following the date of such notice, or, if such breach cannot by its nature be cured within such period, if Licensee has not commenced, and thereafter at all times diligently pursued, commercially reasonable efforts to cure as soon as possible thereafter; and (v) CableLabs has informed all Cable Operators of such breach. Such Third Party Beneficiaries may seek injunctive relief only after providing CableLabs and the Licensee with notice and consultation reasonable under the circumstances with respect to such third party claim. Claims and actions under this Section 14.1 shall be made only for material breaches (as defined in Section 10) that are also willful and in bad faith.

14.2 Commercially Available Guide Data. Licensee acknowledges that certain Cable Operators make available commercially available guide data on selected video transport streams from time to time, but that such guide data is not owned or controlled by those Cable Operators or CableLabs, or made available by CableLabs under this Agreement. Licensees are directed to enter into the necessary agreements with the guide data provider in order to use the guide data.

14.3 Independent Contractors. The relationship established between the parties by this Agreement is that of independent contractors. Nothing in this Agreement shall be construed to constitute the parties as partners, joint venturers, co-owners, franchisers or otherwise as participants in a joint or common undertaking for any purpose whatsoever.

14.4 No Trademark Rights Granted. Except as expressly provided in this Agreement, nothing contained in this Agreement shall be construed as conferring any right to use in advertising, publicity, or other promotional activities any name, trade name, trademark or other designation of either party hereto (including any contraction, abbreviation or simulation of any of the foregoing).

14.5 No Patent Solicitation Required. Except as expressly provided herein, neither party shall be required hereunder to file any patent application, secure any patent or patent rights, provide copies of patent applications to the other party or disclose any inventions described or claimed in such patent applications.

14.6 Law and Jurisdiction. THIS AGREEMENT SHALL BE CONSTRUED, AND THE LEGAL RELATIONS BETWEEN THE PARTIES HERETO SHALL BE DETERMINED, IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK, UNITED STATES OF AMERICA, WITHOUT REGARD TO ITS CONFLICT OF LAWS RULES.

14.7 Compliance with Laws. In connection with this Agreement, each party shall comply with all applicable regulations and laws, including export, re-export and foreign policy

controls and restrictions that may be imposed by any government. Each party shall require its commercial customers with a contractual relationship that may export Host Devices to assume an equivalent obligation with regard to import and export controls.

14.8 No Assignment. Licensee shall not assign any of its rights or privileges under this Agreement without the prior written consent of CableLabs, such consent not to be unreasonably withheld or delayed. No consent shall be required for the assignment of this Agreement to any wholly-owned subsidiary of Licensee or for the assignment in connection with the merger or the sale of Licensee or Licensee's business unit provided that Licensee shall remain liable for its obligations hereunder. Any attempted assignment or grant in derogation of the foregoing shall be void.

14.9 Notice. 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 as follows with notice deemed given as indicated: (a) by personal delivery when delivered personally; (b) by overnight courier upon written notification of receipt; (c) by telecopy or facsimile transmission upon acknowledgment of receipt of electronic transmission; or (d) by certified or registered mail, return receipt requested, five days after deposit in the mail All notices must be sent to the address set forth below, or to such other address as the receiving party may have designated by written notice given to the other party:

(a) for **CableLabs**,
Attention: General Counsel
858 Coal Creek Circle
Louisville, CO 80027
fax: 303/661-9199; and

(b) for **Licensee**,

14.10 Amendments. No amendment or modification hereof shall be valid or binding upon the parties unless made in writing and signed by both parties.

14.11 Waiver. Any waiver by either party of any breach of this Agreement shall not constitute a waiver of any subsequent or other breach.

14.12 Severability. 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.

14.13 Headings. The headings of the several sections of this Agreement are for convenience and reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

14.14 Survival. The following sections of the Agreement shall survive any termination of the Agreement: Sections 1, 2.7, 6, 7, 8.5, 10, 12 and 14 (except for Section 14.1). In addition, except as they relate to Prototypes developed pursuant to Section 2.1, Sections 9.1, 9.2, 9.3 and Exhibits B and C shall survive any termination of this Agreement with respect to products that are both Certified and distributed under this Agreement. For the avoidance of doubt, if the DFAST Agreement for Basic Digital Cable Products (the “DFAST Agreement”) is entered into by Licensee, the provisions of the DFAST Agreement (and not his Agreement), shall apply to products built or distributed under such DFAST Agreement.

14.14 Entire Agreement. This Agreement embodies the entire understanding of the parties with respect to the DFAST Technology licensed hereunder and supercedes all prior oral or written agreements with respect to the subject matter hereof. Notwithstanding, the parties may enter into the DFAST Agreement and the DFAST Agreement may coexist separately with this Agreement, or, Licensee may terminate this Agreement and continue to build products under the DFAST Agreement as contemplated and covered under such DFAST Agreement, without any additional licensing fee. The parties acknowledge that additional agreements for additional technology are required to implement some of the Host Profiles contemplated hereunder, including, but not limited to licenses to OCAP, OCAP Conformance Test Package, OCAP ATE, OCAP code, digital certificates, and OCAP code verification certificates.

14.15 Most Favored Status. CableLabs shall make available to Licensee its substantial commitments or clarifications regarding the CableCARD-Host Interface License Agreement (the “CHILA”) made available to any and all manufacturers of Host Devices, by monthly notice to Licensee (which notice may be via posting to the CableLabs website at www.opencable.com) by no later than the final business day of each calendar month. CableLabs also commits that the benefit of any modifications, clarifications or interpretations of language, made by CableLabs or mandated by applicable governmental or judicial authority, in the standard CHILA shall be extended to Licensee in accordance with this Section 14.15. Where CableLabs agrees to make a change to a particular licensee’s CHILA, Licensee shall be given the option to upgrade to such revised agreement or to amend this Agreement to reflect the more favorable terms offered to such other licensee. Prior to such time as CableLabs makes a revised or upgraded standard CHILA available to all licensees that have already executed a CHILA, where CableLabs has agreed to include language in a particular CHILA that is more favorable than that in the then current version of the standard CHILA, CableLabs shall not enforce the language in this Agreement with respect to Licensee to the extent that such language is less favorable than that language found in such other licensee’s CHILA. CableLabs shall, promptly following the request of Licensee at any time, provide Licensee with the most recent executed version of CHILA (subject to Section 13 regarding redaction). It is understood and agreed that the DFAST Agreement sets forth a separate set of obligations that govern the relationship between the parties thereto, that this CHILA Agreement and the changes hereto shall not alter any provisions of any DFAST Agreement, and that changes to any DFAST Agreement shall not alter the provisions of this CHILA Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly signed and to be effective as of the Effective Date above.

Licensee

Cable Television Laboratories, Inc.

Signature: _____

Signature: _____

Printed Name: _____

Printed Name:

Title: _____

Title:

LIST OF EXHIBITS

- Exhibit A: Certification Criteria
- Exhibit B: Robustness Rules
- Exhibit C: Compliance Rules
- Exhibit D: Activation Notice
- Exhibit E: OpenCable Change Process

Exhibit A

CableLabs' Certification Criteria for Host Devices

In order to assure compliance with the Open Cable Specifications, protect the integrity of the security of cable television networks, and to promote interoperability, the license granted in Section 2.2 hereof is for Host Devices which meet the following requirements:

1. The Host Device is submitted for Certification, in accordance with the OpenCable Certification Wave Guidelines as published on the <www.opencable.com> website for the Host Profile in question.

2. The Host Device has passed the Interoperability Audit Acceptance Test Plan and PICS as published on the <www.opencable.com> website (and as referred to in the OpenCable Certification Wave Guidelines) for the Host Profile in question, as tested by CableLabs in a fair, objective, verifiable and non-discriminatory manner. If the Host Device does not pass the audit by CableLabs, the Licensee will be informed of the specific reasons for such failure, and shall be given an opportunity to correct in a timely fashion and re-request Certification in accordance with the OpenCable Certification Wave Guidelines.

Certification and Self-certification. Certification testing of IDCPs shall be at CableLabs using the IDCP Tests. Adopters who have demonstrated that they are consistently capable of Certifying IDCPs may obtain Self Certification status. Successful Certification of at least five (5) mutually agreed upon devices on different platforms in CableLabs Certification Waves indicates such capability.

Exhibit B

Robustness Rules

Note: The terms of this Exhibit B do not apply with respect to Prototypes or Licensed Components.

1. Construction.

1.1 Generally. The Licensed Products as shipped shall meet the Compliance Rules and shall be designed and manufactured in a manner to effectively frustrate attempts to modify such Licensed Products to defeat the Compliance Rules or functions of the OpenCable Specifications.

1.2 Defeating Functions. Licensed Products shall not include (i) switches, buttons, jumpers, specific traces that can be cut, or software equivalents of any of the foregoing, or (ii) service menus or functions (including remote-control functions), in each case by which the DFAST Technology, content protection technologies, analog protection systems, Reprotection, output restrictions, recording limitations, or other mandatory provisions of the OpenCable Specifications or the Compliance Rules can be defeated or by which Controlled Content can be exposed to unauthorized copying. For the purpose of this exhibit, "Reprotection" shall mean the application of an approved, protection technology, when required, to Controlled Content received from a CableCARD that is to be output from the Host Device, and the integrity of the system and methods by which such application is assured.

1.3 Keep Secrets. Licensed Products shall be designed and manufactured in a manner to effectively frustrate attempts to discover or reveal (i) the unique number, of a specified bit length, assigned to each Host Device, or the numbers used in the process for encryption or decryption of Controlled Content (collectively, "Keys") and (ii) the methods and cryptographic algorithms used to generate such Keys.

1.4 Documents and Robustness Certification Checklist.

1.4.1 Before releasing any Licensed Product, Licensee must perform tests and analyses to assure compliance with this Exhibit B. A Robustness Certification Checklist is attached as Exhibit B-1 for the purpose of assisting Licensee in performing tests covering certain important aspects of this Exhibit B. Inasmuch as the Robustness Certification Checklist does not address all elements required for the manufacture of a compliant product, Licensee is strongly advised to review carefully the OpenCable Core Functional Requirements for the implementation in question, the OpenCable Specifications, the Compliance Rules and this Exhibit B so as to evaluate thoroughly both its, testing procedures and the compliance of its Licensed Products.

1.4.2 Licensee specifically acknowledges and agrees that it must provide copies of the OpenCable CORE Functional Requirements for the Host Profile in question, OpenCable Specifications, the Compliance Rules, the Robustness Rules, and the Robustness Certification Checklist to its responsible supervisors of product design and manufacture in such manner and at such times as to effectively induce compliance with such materials and completion of the Robustness Certification Checklist.

2. Controlled Content Paths. Content shall not be available on outputs other than those specified in the Compliance Rules, and, within such Licensed Product, Controlled Content shall not be present on any user accessible buses (as defined below) in non-encrypted, compressed form. Similarly unencrypted Keys used to support any content encryption and/or decryption in the Licensed Product's data shall not be present on any user accessible buses. Notwithstanding the foregoing, compressed audio data may be output to an external Dolby Digital decoder in the clear via the S/PDIF connector. This section shall not apply to navigation data contained in the Program Association Tables (PAT) or the Program Map Tables (PMT). A "user accessible bus" means a data bus which is designed for end user upgrades or access such as PCI that has sockets or is otherwise user accessible, SmartCard, PCMCIA, or Cardbus, but not memory buses, CPU buses and similar portions of a device's internal architecture.

3. Methods of Making Functions Robust. Licensed Products shall use at least the following techniques to make robust the functions and protections specified in this Agreement:

(a) **Distributed Functions.** The portions of the Licensed Product that perform authentication and decryption and the MPEG (or similar) decoder shall be designed and manufactured in a manner associated and otherwise integrated with each other such that Controlled Content in any usable form flowing between these portions of the Licensed Product shall be secure to the level of protection described in Section 3(e) below from being intercepted or copied.

(b) **Software.** Any portion of the Licensed Product that implements a part of the OpenCable Specifications in software shall include all of the characteristics set forth in Sections 1 and 2 of this Exhibit B. For the purposes of this Exhibit B, "Software" shall mean the implementation of the functions as to which this Agreement requires a Licensed Product to be compliant through any computer program code consisting of instructions or data, other than such instructions or data that are included in Hardware. Such implementations shall:

(i) Comply with Section 1.3 by any reasonable method including but not limited to encryption, execution of a portion of the implementation in ring zero or supervisor mode, and/or embodiment in a secure physical implementation; and in every case of implementation in software, using effective techniques of obfuscation to disguise and hamper attempts to discover the approaches used;

(ii) Be designed to perform self-checking of the integrity of its component parts such that unauthorized modifications will be expected to result in a failure of the implementation to provide the authorized authentication and/or decryption function. For the purpose of this provision, a "modification" includes any change in, or disturbance or invasion of features or characteristics, or interruption of processing, relevant to Sections 1 and 2 of this Exhibit B. This provision requires at a minimum the use of code with a cyclic redundancy check that is further encrypted with a private key or a secure hashing algorithm;

(iii) Meet the level of protection outlined in Section 3(e) below.

(c) **Hardware.** Any portion of the Licensed Product that implements a part of the OpenCable Specifications in hardware shall include all of the characteristics set forth in

Sections 1 and 2 of this Exhibit B. For the purposes of these Robustness Rules, “Hardware” shall mean a physical device, including a component, that implements any of the content protection requirements as to which this Agreement requires that a Licensed Product be compliant and that (i) does not include instructions or data other than such instructions or data that are permanently embedded in such device or component; or (ii) includes instructions or data that are not permanently embedded in such device or component where such instructions or data have been customized for such Licensed Product or Licensed Component and such instructions or data are not accessible to the end user through the Licensed Product or Licensed Component. Such implementations shall:

(i) Comply with Section 1.3 by any reasonable method including but not limited to: embedding Keys, Key generation methods and the cryptographic algorithms in silicon circuitry or firmware that cannot reasonably be read, or the techniques described above for software;

(ii) Be designed such that attempts to reprogram, remove or replace hardware elements in a way that would compromise the security or content protection features of DFAST Technology, CableLabs Technology, the Agreement or in Licensed Products would pose a serious risk of damaging the Licensed Product so that it would no longer be able to receive, decrypt or decode Controlled Content. By way of example, a component which is soldered rather than socketed may be appropriate for this means;

(iii) Meet the level of protection outlined in Section 3(e) below.

For purposes of these Robustness Rules, “hardware” shall mean a physical device, including a component, that implements any of the content protection requirements as to which this Agreement requires that a Licensed Product be compliant and that (x) does not include instructions or data other than such instructions or data that are permanently embedded in such device or component; or (y) includes instructions or data that are not permanently embedded in such device or component where such instructions or data have been customized for such Licensed Product or Licensed Component and such instructions or data are not accessible to the end user through the Licensed Product or Licensed Component.

(d) **Hybrid.** The interfaces between hardware and software portions of a Licensed Product shall be designed so that they provide a similar level of protection which would be provided by a purely hardware or purely software implementation as described above.

(e) **Level of Protection.** The core encryption functions of the OpenCable Specifications (maintaining the confidentiality of Keys, Key generation methods and the cryptographic algorithms, conformance to the Compliance Rules and preventing Controlled Content that has been unencrypted from copying or unauthorized viewing) shall be implemented in accordance with the “Level 2” requirements of the United States Federal Information Processing Standards (see FIPS PUB 140-2 “Security Requirements for Cryptographic Modules,” May 25, 2001), and, at a minimum, in a way that they:

(i) Cannot be reasonably foreseen to be defeated or circumvented merely by using general purpose tools or equipment that are widely available at a reasonable price, such as screw drivers, jumpers, clips and soldering irons (“Widely

Available Tools”), or using specialized electronic tools or specialized software tools that are widely available at a reasonable price, such as EEPROM readers and writers, debuggers or de-compilers or similar software development tools (“Specialized Tools”), other than devices or technologies whether hardware or software that are designed and made available for the specific purpose of bypassing or circumventing the protection technologies required (“Circumvention Devices”); and

(ii) Can only with difficulty be defeated or circumvented using professional tools or equipment (excluding Circumvention Devices and professional tools or equipment that are made available only on the basis of a non-disclosure agreement), such as logic analyzers, chip disassembly systems, or in-circuit emulators or other tools, equipment, methods or techniques not included in the definition of Widely Available Tools and Specialized Tools in subsection (i) above.

(f) **Advance of Technology.** Although an implementation of a Licensed Product when designed and shipped may meet the above standards, subsequent circumstances may arise which had they existed at the time of design of a particular Licensed Product would have caused such product to fail to comply with this Exhibit B (“New Circumstances”). If Licensee has (a) actual Notice of New Circumstances, or (b) actual knowledge of New Circumstances (the occurrence of (a) or (b) hereinafter referred to as “Notice”), then within eighteen months after Notice Licensee shall cease distribution of such Licensed Product and shall only distribute Licensed Products that are compliant with this Exhibit B in view of the then-current circumstances.

4. Update Procedure.

CableLabs will meet with cable television system operators, Licensees and Content Providers on a regular basis to revise and update these rules to ensure that the Licensed Products remain secure against tampering and reverse engineering directed toward defeating the CableLabs Technology and any copy protection scheme incorporated therein.

EXHIBIT B-1

Robustness Checklist

Notice: This Checklist is intended as an aid to the correct implementation of the Robustness Rules for hardware and software implementations of the OpenCable Specifications in a Licensed Product. This Checklist does not address all aspects of the OpenCable Specifications and Compliance Rules necessary to create a product that is fully compliant. Failure to perform the tests and analysis necessary to comply fully with the OpenCable Specifications, Compliance Rules or Robustness Rules could result in a breach of the CableCARD Interface License Agreement and appropriate legal action taken by CableLabs or other parties under the License Agreement.

DATE: _____

MANUFACTURER: _____

PRODUCT NAME: _____

HARDWARE MODEL OR SOFTWARE VERSION: _____

NAME OF TEST ENGINEER COMPLETING CHECKLIST:

TEST ENGINEER: _____

COMPANY NAME: _____

COMPANY ADDRESS: _____

PHONE NUMBER: _____

FAX NUMBER: _____

GENERAL IMPLEMENTATION QUESTIONS

1. Has the Licensed Product been designed and manufactured so there are no switches, buttons, jumpers, or software equivalents of the foregoing, or specific traces that can be cut, by which the content protection technologies, analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable Specifications or Compliance Rules can be defeated or by which Controlled Content can be exposed to unauthorized copying?
2. Has the Licensed Product been designed and manufactured so there are no service menus and no functions (such as remote-control functions, switches, check boxes, or other means) that can intercept the flow of Controlled Content or expose it to unauthorized copying?
3. Has the Licensed Product been designed and manufactured so there are no service menus and no functions (such as remote-control functions, switches, check boxes, or other means) that can turn off any analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable Specifications or Compliance Rules?
4. Does the Licensed Product have service menus, service functions, or service utilities that can alter or expose the flow of Controlled Content within the device?

If Yes, please describe these service menus, service functions, or service utilities and the steps that are being taken to ensure that these service tools will not be used to expose or misdirect Controlled Content.

5. Does the Licensed Product have service menus, service function, or service utilities that can turn off any analog protection systems, output restrictions, recording limitations, or other mandatory provisions of the OpenCable Specifications or Compliance Rules?

If Yes, please describe these service menus, service functions, or service utilities and the steps that are being taken to ensure that these service tools will not be used to defeat the encryption features of DFAST (including compliance with the Compliance Rules and the OpenCable Specifications).

6. Does the Licensed Product have any user-accessible buses (as defined in Section 2 of the Robustness Rules)?

If so, is Controlled Content carried on this bus?

If so, then:

identify and describe the bus, and whether the Controlled Content is compressed or uncompressed. If such Data is compressed, then explain in detail how and by what means the data is being re-encrypted as required by Section 2 of the Robustness Rules.

7. Explain in detail how the Licensed Product protects the confidentiality of all keys.
8. Explain in detail how the Licensed Product protects the confidentiality of the confidential cryptographic algorithms used in DFAST.
9. If the Licensed Product delivers Controlled Content from one part of the product to another, whether among software modules, integrated circuits or otherwise or a combination thereof, explain how the portions of the product that perform authentication and decryption and the MPEG (or similar) decoder have been designed, associated and integrated with each other so that Controlled Content are secure from interception and copying as required in Section 3(a) of the Robustness Rules.
10. Are any DFAST functions implemented in Hardware?
If Yes, complete hardware implementation questions.
11. Are any DFAST functions implemented in Software?
If Yes, complete software implementation questions.

SOFTWARE IMPLEMENTATION QUESTIONS

12. In the Licensed Product, describe the method by which all Keys are stored in a protected manner.
13. Using the grep utility or equivalent, are you unable to discover any Keys in binary images of any persistent memory devices?
14. In the Licensed Product, describe the method used to obfuscate the confidential cryptographic algorithms and Keys used in DFAST and implemented in software.
15. Describe the method in the Licensed Product by which the intermediate cryptographic values (e.g., values created during the process of authentication between modules or devices within a Licensed Product) are created and held in a protected manner.
16. Describe the method being used to prevent commonly available debugging or decompiling tools (e.g., Softice) from being used to single-step, decompile, or examine the operation of the DFAST functions implemented in software.
17. Describe the method by which the Licensed Product self-checks the integrity of component parts in such manner that modifications will cause failure of authorization or decryption as described in Section 3(b)(ii) of the Robustness Rules. Describe what happens when integrity is violated.
18. To assure that integrity self-checking is being performed, perform a test to assure that the executable will fail to work once a binary editor is used to modify a random byte of the

executable image containing DFAST functions, and describe the method and results of the test.

HARDWARE IMPLEMENTATION QUESTIONS

19. In the Licensed Product, describe the method by which all Keys are stored in a protected manner and how their confidentiality is maintained.
20. Using the grep utility or equivalent, are you unable to discover any Keys in binary images of any persistent memory devices?
21. In the Licensed Product, describe how the confidential cryptographic algorithms and Keys used in DFAST have been implemented in silicon circuitry or firmware so that they cannot be read.
22. Describe the method in the Licensed Product by which the intermediate cryptographic values (e.g., values created during the process of authentication between modules or devices within a Licensed Product) are created and held in a protected manner.
23. Describe the means used to prevent attempts to replace, remove, or alter hardware elements or modules used to implement DFAST functions?
24. In the Licensed Product, does the removal or replacement of hardware elements or modules that would compromise the content protection features of DFAST (including the Compliance Rules, the OpenCable Specifications, and the Robustness Rules) damage the Licensed Product so as to render the Licensed Product unable to receive, decrypt, or decode Controlled Content?
25. Is the Licensed Product certified by NIST to FIPS Level 2?

Notice: This checklist does not supersede or supplant the OpenCable Specifications, Compliance Rules, or Robustness Rules. The Company and its Test Engineer are advised that there are elements of the OpenCable Specifications, the Robustness Rules and the Compliance Rules that are not reflected here but that must be complied with.

SIGNATURES:

Signature of Test Engineer with Personal Knowledge of Answers

Date

Printed Name of Test Engineer with Personal Knowledge of Answers

EXHIBIT C

Compliance Rules

Note: The terms of this Exhibit C do not apply with respect to Prototypes or Licensed Components.

Licensed Products, at the time of manufacture, must comply with the requirements set forth in this Exhibit and be constructed so as to resist attempts at circumvention of these requirements as specified in Exhibit B, Robustness Rules. For purposes of this Exhibit C, “**at the time of manufacture**” shall have the meaning given in Section 9.2 of the Agreement.

Note: Limited Application to Certain Unidirectional Terminals.

These Compliance Rules shall not apply to any unidirectional terminal Host Profiles in the OpenCable Host Core Functional Requirements specification that meets all of the following criteria:

- (a) complies with the terms of the Robustness Rules (other than to the extent the Robustness Rules relate to compliance with the Compliance Rules);
- (b) has no output other than a Standard Definition Analog Output (as defined below) and shall not output Controlled Content, or pass Controlled Content to any output, in Standard Definition Analog Form except in accordance with Section 2.2;
- (c) has no inherent or integrated copying, recording or storage capability; and
- (d) does not interfere with a Consensus Watermark as defined in Section 2.6.

1. Definitions

1.1 “**Consensus Watermark**” means a watermark that has been developed on a multi-industry basis pursuant to a broad consensus in an open, fair, voluntary process, and that has thereafter been identified in a notice by CableLabs to Licensee as the Consensus Watermark for purposes of this Agreement.

1.2 “**Constrained Image**” means the visual equivalent of not more than 520,000 Pixels per frame (e.g. an image with resolution of 540 vertical lines by 960 horizontal lines for a 16:9 aspect ratio). A Constrained Image can be output or displayed using video processing techniques such as line doubling or sharpening to improve the perceived quality of the image.

1.3 “**Constrained Image Trigger**” or “**CIT**” means the field or bits, as described in the CableCARD Interface Specifications hereto, used to trigger the output of a Constrained Image in the High Definition Analog Output of Licensed Products.

1.4 “**Controlled Content**” means content that has been transmitted from the headend with (a) the Encryption Mode Indicator (“EMI”) bits set to a value other than zero, zero (0,0), (b) the EMI bits set to a value of zero, zero (0,0), but with the RCT value set to one (1); or (c) the copy control information (CCI) or OCAP application otherwise indicates restrictions on access, copying, redistribution, or usage rights.

1.5 **“Digital Receiver Interface” or “DRI”** means a content transport and command and control protocol, implemented in accordance with an Issued OpenCable DRI Specification, that can be applied on any digital bus, including but not limited to Ethernet, Wi-Fi, USB, and 1394.

1.6 **“DTCP” means that method of encryption, decryption, key exchange and renewability** that is described in the specification entitled “5C Digital Transmission Content Protection Release 1.0.”

1.7 **“HDCP”** means that method of authentication, encryption, decryption, and renewability that is described in the specification entitled “High-Bandwidth Digital Content Protection System, Rev. 1.1” as supplemented (but not superseded) by the OpenCable Specifications, as may be amended from time to time.

1.8 **“High Definition Analog Form [or] Output”** means a format or output that is not digital, and has a resolution higher than Standard Definition Analog Form or Output.

1.9 **“RCD” or “Redistribution Control Descriptor”** means the field or bits as described in CEA-608-D.

1.10 **“RCT” or “Redistribution Control Information”** means the field or bits as described in CEA-805-D.

1.11 **“RCT” or “Redistribution Control Trigger”** means the field or bits, as described the CableCARD Interface Specifications, used to trigger the Encryption Plus Non-assertion (“EPN”) state in DTCP protected digital outputs in the Certified Host Devices when the RCT value is set to a value of one (1) in combination with the EMI bits set to a value of zero, zero (0,0), which signals the need for redistribution control to be asserted on Controlled Content without the need to assert numeric copy control.¹

1.12 **“Standard Definition Analog Form [or] Output”** means a format or output that is not digital, is NTSC RF, Composite, S-Video, YUV, Y,R-Y,B-Y or RGB and has no more than 483 interlace or progressive active scan lines.

1.13 **“VCPS”** means the Video Content Protection System for recording encrypted content on DVD+RW and DVD+R optical digital media protected by VCPS technology.

1.11 **“CPDO”** means the secure digital recording method as specified by EnCentrus Systems, Inc. in its document entitled EnCentrus Content Protected Digital Output Port System Description; Revision 1.2 dated January 2006.

¹ RCT may not be set to restrict redistribution except in content that could lawfully be marked Copy One Generation or Copy Never but is instead marked Copy Freely. The effective date for Licensed Products to detect and honor the RCT shall be July 1, 2009.

2. Outputs

2.1 **General.** Licensed Product shall not output content, or pass content received through the Service to any output, except as permitted in this Section 2. For purposes of this Exhibit, an output shall be deemed to include, but not be limited to, any transmissions to any internal copying, recording, or storage device, but shall not include internal non-persistent or transitory transmissions that otherwise satisfy these Compliance Rules and the Robustness Rules. For the purposes of this Exhibit C, the RCD bit as defined in CEA-608-D and the RCI as defined in CEA-805-D shall be set to “1” if the Redistribution Control Trigger bit is set to a value of one (1) in combination with the EMI bits set to a value of zero, zero (0,0).

2.2 **Standard Definition Analog Outputs.** Licensed Products with any Standard Definition Analog Outputs shall only output content received through the Service, or pass content received through the Service as permitted by this Section 2.2:

2.2.1 In any transmission through an NTSC RF, Composite, Y,R-Y,B-Y, or RGB format analog output (including an S-video output and including transmissions to any internal copying, recording or storage device) of a signal, Licensed Products shall generate copy control signals in response to the instructions provided in the APS bits of the Copy Control Instruction message, if any, and in accordance with the OpenCable Specifications (i.e. trigger bits for Automatic Gain Control and Colorstripe copy control systems, as referenced below). The technologies that satisfy this condition and are authorized hereunder are limited to the following:

(1) For NTSC analog outputs (including RF, Composite or S-Video), the specifications for the Automatic Gain Control and Colorstripe copy control systems (contained in the document entitled “Specifications of the Macrovision Copy Protection Process for STB/IRD Products” Revision 7.1.S1, October 1, 1999);

(2) For 480i (interlace scan), YUV or Y, R-Y, B-Y outputs, the appropriate specifications for the Automatic Gain Control copy control system, as identified in the OpenCable Specifications;

(3) For 480p progressive scan outputs, the appropriate specification for the Automatic Gain Control copy control system, as identified in the OpenCable Specifications.

(4) Except as provided in Section 2.2.2 for Standard Definition Analog outputs not specified above, or as provided in Section 2.3, Licensed Products shall not transmit content through such analog outputs until such time as this Exhibit is amended to permit same.

All Licensed Products shall generate and propagate CGMS-A signals for all SD analog outputs; but shall not be required to respect the CGMS-A trigger unless required by appropriate legislation or regulation.

2.2.2 **VGA.** A Licensed Product may output content, or pass content through a VGA interface to a monitor, in Standard Definition Analog Form, in Licensed Products manufactured prior to December 31, 2005. As used herein, “VGA” means a Video Graphics Array display system, typically implemented as a computer video output, that is 640 x 480 pixels.

2.3 **High Definition Analog Outputs.** Licensed Products with any High Definition Analog Outputs shall only output content received through the Service or pass content received through the Service as permitted by this section 2.3.

2.3.1 Licensed Product shall be able to constrain, when required by the CIT CCI bit, the resolution of content that is High Definition to be output through a connection capable of transmitting content in High Definition Analog Form, to a Constrained Image.

2.3.2 Licensed Product shall include one or more approved Digital Outputs as specified in Section 2.4 below.

2.3.3 All Licensed Products shall generate and propagate CGMS-A signals for all HD analog outputs; but shall not be required to respect the CGMS-A trigger unless required by appropriate legislation or regulation.

2.4 **Digital Outputs.** Licensed Product with any digital outputs shall only output content received through the Service, or pass content received through the Service as permitted by this section 2.4.

2.4.1 **1394 with DTCP.** Licensed Product may output Controlled Content, and pass Controlled Content to an output, in digital form over IEEE 1394 interfaces as specified by the OpenCable Specifications, where such output is protected by DTCP. Licensed Product must support DTCP “Full Authentication,” and may additionally support DTCP “Restricted Authentication.” When so outputting or passing such content to a DTCP-1394 output, the DTCP Source Function shall correctly map the copy control information (CCI) to the DTCP Encryption Mode Indicator (EMI), DTCP Analog Protection System (APS) signaling, DTCP Image Constraint Token (ICT), and DTCP Encryption Plus Non-assertion (EPN) signaling in accordance with the OpenCable Interface Specifications. Capitalized terms used in this Section, but not otherwise defined in this Exhibit C or the Agreement, shall have the meaning set forth in the DTCP Specification or the DTCP Adopter Agreement.

2.4.2 **DVI/HDMI with HDCP.** Licensed Product may output content received through the Service, and pass content received through the Service to an output, in digital form over DVI, including HDMI, interfaces as specified by the OpenCable Specifications, and where the output always has HDCP active and on. When so outputting or passing such content to a DVI/HDMI output, the HDCP Source Function shall pass content received through the Service to such output in digital form only when it has securely verified that the HDCP Source Function has signaled that it is engaged and able to deliver protected content, which means (i) HDCP protection is operational and always active on all DVI or HDMI outputs; and (ii) there is no HDCP device on such output whose Key Selection Vector is in a SRM. Capitalized terms used in this Section, but not otherwise defined in this Exhibit C or the Agreement, shall have the meaning set forth in the HDCP Specification or the HDCP License Agreement.

- 2.4.3 **DTCP-IP.** Licensed Product may output Controlled Content, and pass Controlled Content to an output in digital form where such output is protected by DTCP-IP. When so outputting or passing such content to a DTCP-IP output, the DTCP Source Function shall map the copy control information (CCI) to the DTCP Encryption Mode Indicator (EMI), DTCP Analog Protection System (APS) signaling, DTCP Image Constraint Token (ICT), and DTCP Encryption Plus Non-assertion (EPN) signaling in accordance with the OpenCable Interface Specifications. Capitalized terms used in this Section, but not otherwise defined in this Exhibit C or the Agreement, shall have the meaning set forth in the DTCP Specification or the DTCP Adopter Agreement.
- 2.4.4 **IPRM.** Licensed Product may output Controlled Content, and pass Controlled Content to an output in digital form where such output and content is protected by IP Rights Management (IPRM) system in accordance with the Motorola IPRM System Submission of New Digital Outputs and Content Protection Technologies; Revision 2.7 dated November 10, 2006, as amended, and the applicable license terms governing the implementation of IPRM as provided by Motorola, such terms including compliance with the Compliance and Robustness Rules herein.
- 2.4.5 **DRI with an Approved DRM.** Licensed Products that conform to the OCUR Specification may output content, and pass content, in digital form over the DRI. One or more of the approved Digital Rights Management (DRM) systems listed in this Section 2.4.3 must be included in the OCUR implementation. No other outputs, other than a single DRI-compliant output, may exist on the OCUR. Approved DRMs, and limitations, include the following DRMs, as amended by CableLabs from time to time:
- 2.4.3.1 **Microsoft Windows Media Digital Rights Management (WMDRM).** Content may be output over the DRI protected by Microsoft WMDRM in accordance with the DRI Content Protection Requirements set forth in the OCUR Specification, where connected to a device that runs Microsoft Windows Media Center Edition (a “MCE HMS”) and such MCE HMS complies with (1) the OEM Compliance Letter between CableLabs and the MCE HMS manufacturer, such compliant devices posted at www.opencable.com, and (2) the Redacted Agreement between Microsoft and CableLabs dated Dec 12, 2005.
- 2.4.3.2 **Real Helix DRM.** Content may be output over the DRI protected by Real Helix DRM in accordance with the DRI Content Protection Requirements set forth in the OCUR Specification, where connected to a device that runs Microsoft Windows Media Center Edition (a “MCE HMS”) and such MCE HMS complies with (1) the OEM Compliance Letter between CableLabs and the MCE HMS manufacturer, such compliant devices posted at www.opencable.com, (2) the Redacted Agreement between RealNetworks and CableLabs dated April 6, 2006; and (3) the Redacted Agreement between Microsoft and CableLabs dated Dec 12, 2005.

2.4.4 Other Digital Outputs. CableLabs shall approve or disapprove digital outputs and/or content protection technologies (or “delist” an approved technology) on a reasonable and nondiscriminatory basis within 180 days of submission by an Adopter of a request and all information necessary to evaluate such request. In the event of disapproval or delisting, CableLabs will indicate in writing the specific reasons for its action. CableLabs shall not withhold approval of any such output or content protection technology that provides effective protection to Controlled Content against unauthorized interception, retransmission or copying. In making that determination, CableLabs shall take into account (a) the effectiveness of the technology; (b) the license terms governing the secure implementation of the technology; and (c) other objective criteria. In the event that CableLabs disapproves or fails to act within the time specified above, an Adopter may petition the Federal Communications Commission concerning such denial, lack of approval, or delisting. The parties anticipate that the FCC shall determine in an expedited 90-day proceeding whether the proposed digital output and/or content protection technology provides effective protection to Controlled Content against unauthorized interception, retransmission or copying, taking into account, among other things, the factors utilized by CableLabs. CableLabs agrees to be bound by a final order of the FCC. Notwithstanding the foregoing, in the event that CableLabs is advised that four (4) member studios of the Motion Picture Association approve a digital output or content protection technology that provides effective protection to Controlled Content against unauthorized interception, retransmission or copying, such output or content protection technology shall be deemed approved by CableLabs pursuant to CHILA, and upon receipt of notice by CableLabs of such approval by the four studios, CableLabs shall amend the CHILA Compliance Rules to include such output and/or content protection technology.

2.5 SRM. When outputting or passing content through any output, Licensed Product shall process and carry all valid System Renewability Messages (“SRMs”) received via method specified in ATSC A/98. In the case of DTCP, the DTCP Source Function shall process and carry the SRM. Likewise, in the case of HDCP, the HDCP Source Function shall process and carry the SRM.

2.6 Watermark Non-Interference. Commencing eighteen months after the existence of a Consensus Watermark, Licensee shall, when selecting among technological implementations for product features for Licensed Products and Licensed Components designed after such date, take commercially reasonable care (taking into consideration the technical characteristics, costs of implementation, commercial terms and conditions, and impact on Controlled Content and the effectiveness or visibility of the Consensus Watermark) that Licensed Products and Licensed Components do not strip, obscure or interfere with such Consensus Watermark in Controlled Content that has been decrypted; (ii) shall not design or produce Licensed Products or Licensed Components the primary purpose of which is stripping, obscuring or interfering with such Consensus Watermark in Controlled Content that has been decrypted; and (iii) shall not knowingly market or distribute or knowingly cooperate in marketing or distributing Licensed Products or Licensed Components the primary purpose of which is stripping, obscuring or interfering with such Consensus Watermark in Controlled Content that has been decrypted.

Provided Licensee complies with the foregoing provisions of this Section 2.6, this Section 2.6 shall not prohibit a Licensed Product or Licensed Component from incorporating legitimate features (i.e., zooming, scaling, cropping, picture-in-picture, compression, recompression, image overlays, overlap of windows in a graphical user interface, audio mixing

and equalization, video mixing and keying, downsampling, upsampling, and line doubling, or conversion between widely-used formats for the transport, processing and display of audiovisual signals or data, such as between analog and digital formats and between PAL and NTSC or RGB and Y,Pb,Pr formats, as well as other features as may be added to the foregoing list from time to time by CableLabs by amendment to these Compliance Rules) that are not prohibited by law, and such features shall not be deemed to strip, interfere with or obscure the Consensus Watermark in Controlled Content.

3 Copying, Recording, and Storage of Controlled Content

- 3.1 **General.** Licensed Products, including, without limitation, Licensed Products with inherent or integrated copying, recording or storage capability shall not copy, record, or store Controlled Content, except as permitted in this section.
- 3.2 **Mere Buffer for Display.** Licensed Products may store Controlled Content temporarily for the sole purpose of enabling the immediate display of Controlled Content, provided that (a) such storage does not persist after the content has been displayed, and (b) the data is not stored in a way that supports copying, recording, or storage of such data for other purposes.
- 3.3 **Copy No More.** Licensed Products shall not copy, record or store Controlled Content that is designated in the EMI bits as having been copied but not to be copied further (“copy no more”), except as permitted in section 3.2 or 3.5.2.
- 3.4 **Copy Never.** Licensed Products, including, without limitation, such a device with integrated recording capability such as a so-called “personal video recorder,” shall not copy Controlled Content that is designated in the EMI bits as never to be copied (“copy never”) except as permitted in section 3.2 or by the following:
 - 3.4.1 Such a device may internally store such content, including for the purpose of pausing the program, when instructed by OCAP if the stored content is securely bound to the Licensed Product doing the recording so that it is not removable therefrom and is not itself subject to further temporary or other recording within the Licensed Product before it is rendered unusable; provided the device is made in compliance with specified robustness requirements to avoid circumvention of such restrictions. When internally storing such content, including for the purpose of implementing pause, as allowed in this section, the content shall be stored in a manner which is encrypted in a manner that provides no less security than 128-bit Advanced Encryption Standard (“AES”) or 112-bit triple DES.

Licensed Products shall be designed and manufactured to be able, when required by the OCAP application, to obliterate the stored content or render unusable the stored content after a stated period of time (as identified by the OCAP application), on a frame-by-frame, minute-by-minute, megabyte-by-megabyte basis.

3.5 Copy One Generation.

- 3.5.1 Licensed Products may make a copy of Controlled Content that is designated in the EMI bits as permissible to be copied for one generation (“Copy One Generation”), as provided in section 3.2 or the first sentence of 3.4.1 or provided that the copy (a) is scrambled, encrypted or uniquely bound to that device, in each case using a form of copy protection that is identified by an amendment to this section 3.5, if any, and (b) is remarked as not to be further copied (“copy no more”) in a manner that is identified by an amendment to this section 3.5, if any, and will be effective to prevent such further copies being made by devices capable of receiving a transmission of such remarked data through the outputs identified in section 2.4. In the absence of either such amendment to this section 3.5, no copy of such Controlled Content other than as permitted in sections 3.2 or the first sentence of 3.4.1 may be made, except as provided in Section 3.5.2.
- 3.5.2 A Licensed Product that makes a copy of content marked in the CCI as “Copy One Generation” in accordance with this Section 3.5 may move such content to a single removable recording medium, or to a single external recording device, only when (a) the external recording device indicates that it is authorized to perform this Move function in accordance with the requirements of this Section, and to copy such Controlled Content in accordance with the requirements of this Section 3.5; (b) such Controlled Content is marked for transmission by the originating Licensed Product as “Copy One Generation”; (c) the Controlled Content is output over a protected output in accordance with Sections 2.2, 2.3 or 2.4 of this Exhibit C; (d) before the Move is completed, the originating Licensed Product recording is rendered non-useable and the moved Controlled Content is marked “Copy No More” (e) the device to which the removable recording medium is moved is unable or rendered unable to output the Controlled Content except through outputs authorized by these Compliance Rules; and (f) the copy is stored (i) using an encryption protocol approved by CableLabs which uniquely associates such copy with a single device so that it cannot be played on another device or, if stored to removable media, so that no further usable copies may be made thereof or (ii) otherwise using methods referenced in Section 3.5.1. Multiple moves consistent with these requirements are not prohibited.
- 3.5.3 In accordance with Section 3.5.1, Licensed Products may make a copy of Controlled Content that is designated as Copy One Generation using VCPS in accordance with the Vidi System Description Version 1.0 dated March 2004 and the license terms governing the implementation of VCPS as provided in version 1.2 of the Video Content Protection System Agreement dated 1 September 2004.
- 3.5.4 In accordance with Section 3.5.1, Licensed Products may make a copy of Controlled Content that is designated as Copy One Generation providing such copy is protected using CPDO in accordance with the EnCentrus Content Protected Digital Output Port System Description; Revision 1.2 dated January 2006 and the draft license terms governing the implementation of CPDO as provided in CPDO License Agreement dated December 20, 2005, such terms including compliance with the Compliance and Robustness Rules herein.

3.6 A Licensed Product may use a user accessible digital interface to store Controlled Content on a storage device, if: (a) the Controlled Content is encrypted across the interface, and in storage, with an encryption algorithm that provides no less security than 128-bit Advanced Encryption Standard (“AES”) or 112-bit Triple DES Encryption Algorithm (“3DES”); (b) the Controlled Content is uniquely cryptographically associated with (i) the original Licensed Product, or (ii) the storage device itself, such that Controlled Content is unusable to any other product or device; (c) the interface and storage device, or the system architecture, provides protection from a "disk cloning attack"²; (d) no key information is stored on the storage device unless encrypted with security no less than AES (128 bit) or 3DES (112 bit); and (e) the move, storage and copying of Controlled Content otherwise meets the criteria set forth in the Robustness Rules and the Compliance Rules.

3.7 **No Waiver.** Licensee acknowledges that the provisions of this section 3 are not a waiver or license of any copyright interest or an admission of the existence or non-existence of a copyright interest.

² A “disk cloning attack” is characterized by the following example:

- A first licensed product (Host-1) correctly stores "Copy one generation" content on a hard drive (HD-1).
- A bit-for-bit copy (a "clone") of HD-1 is made (in violation of this license and federal copyright law) on a second hard drive (HD-Clone).
- Content on HD-1 is then “moved” to a second licensed product (Host-2, having HD-2) in accordance with CHILA Compliance Rules, and the content is correctly obliterated from HD-1.
- HD-1 in Host-1 is now replaced with HD-Clone, resulting in two usable copies (one on Host-1 with HD-Clone, and a second on Host-2 with HD-2).
- Further unauthorized copies may be made similarly by making multiple clone disks.

Examples of techniques used to prevent a disk cloning attacks include:

- Device maintains a database of stored content and associated usage rules, in the example above, even if a clone is made, this database would prevent the unauthorized copy being used.
- The content is not stored in entirety on one disk, content is stored scattered on two or more disks, thus a clone of one disk alone is not sufficient.
- Stored content is frequently time-stamped, and any content that has a time stamp older than the most recent time stamp is not permitted to be used.

EXHIBIT D

ACTIVATION NOTICE

Licensee having entered into a CableCARD Interface License Agreement (the “License Agreement”) with CableLabs hereby activates its rights under and in accordance with Section 3.2 of the License Agreement, subject to the following:

1. Licensee is a: ___ Host Device manufacturer
 ___ a component manufacturer
 ___ a manufacturer of test tools
 (*Check all categories that apply*)

2. CableLabs uses a robust, commercially available hybrid cryptographic system to protect the integrity of DFAST Technology transported via common carrier between CableLabs and Licensee. The protection is necessary to ensure the authenticity and confidentiality of the order CableLabs has chosen Network Associates’ PGP to protect this distribution.

It can be obtained from:

U.S. Contact:
McAfee Software
3965 Freedom Circle
Santa Clara, CA USA
95054
Tel: (408) 988-3832
Fax: (408) 970-9727
<http://www.nai.com/>

International Contact:
Network Associates International B.V.
Gatwickstraat 25
1043 GL Amsterdam
The Netherlands
Tel.: +31-(0) 20-586 6100
Fax.: +31-(0) 20-586 6101
<http://www.pgpinternational.com>

An example of the appropriate product is “PGP Desktop Security” available at <http://store.mcafee.com/>.

Licensee must obtain a copy of PGP and generate a public/private key pair of type Diffie-Hellman/ DSS with a size of 2048/1024. Prior to receiving the DFAST Technology, Licensee will provide its public key to CableLabs on a CD-ROM.

CableLabs will forward the DFAST Technology, encrypting the contents of the order using PGP with Licensee’s public key prior to writing it to CDROM media. When Licensee receives the CDROM containing the information from CableLabs, Licensee can decrypt the information using its private key prior to using the cryptographic materials. If for some reason a Licensee cannot use PGP, it should contact CableLabs to arrange an alternative delivery option.

3. CableLabs shall send the DFAST Technology (encrypted as set forth above) necessary to activate the Full License via overnight delivery service to the attention of _____ at the following address:

4. All capitalized terms not otherwise defined herein shall have the meanings set forth in the License Agreement.

LICENSEE:

(Name of company)

Authorized Signature

Name

Title

Date

Street Address

City, State, Zip or Postal Code, and Country

Phone Number

Fax Number

Exhibit E

OPENCABLE CHANGE PROCESS

Overview

As OpenCable™ specifications are ISSUED, they become subject to the formal CableLabs Change Process that is summarized below.

This process can be initiated by anyone with an interest in the specification at any time during the life of the issued specification. Engineering Change Requests (ECRs) should be submitted electronically to opencable-ec@cablelabs.com using the ECR form available at https://www.cablelabs.com/doczone/opencable/requirements/ecs/DocZoneFolder_view

Any IPR included in an ECR is governed under the OpenCable IPR Policy (located at <http://www.opencable.com/documents/>), which includes the right for CableLabs to incorporate such ECRs into relevant specifications, disclose such ECRs to members, vendors, and the public, and the commitment of the ECR Submitter to abide by the fair, reasonable, and non-discriminatory terms of the OpenCable IPR Policy. If Licensee is claiming any intellectual property rights in an ECR submission, such rights should be specifically identified so that such property may be treated appropriately.

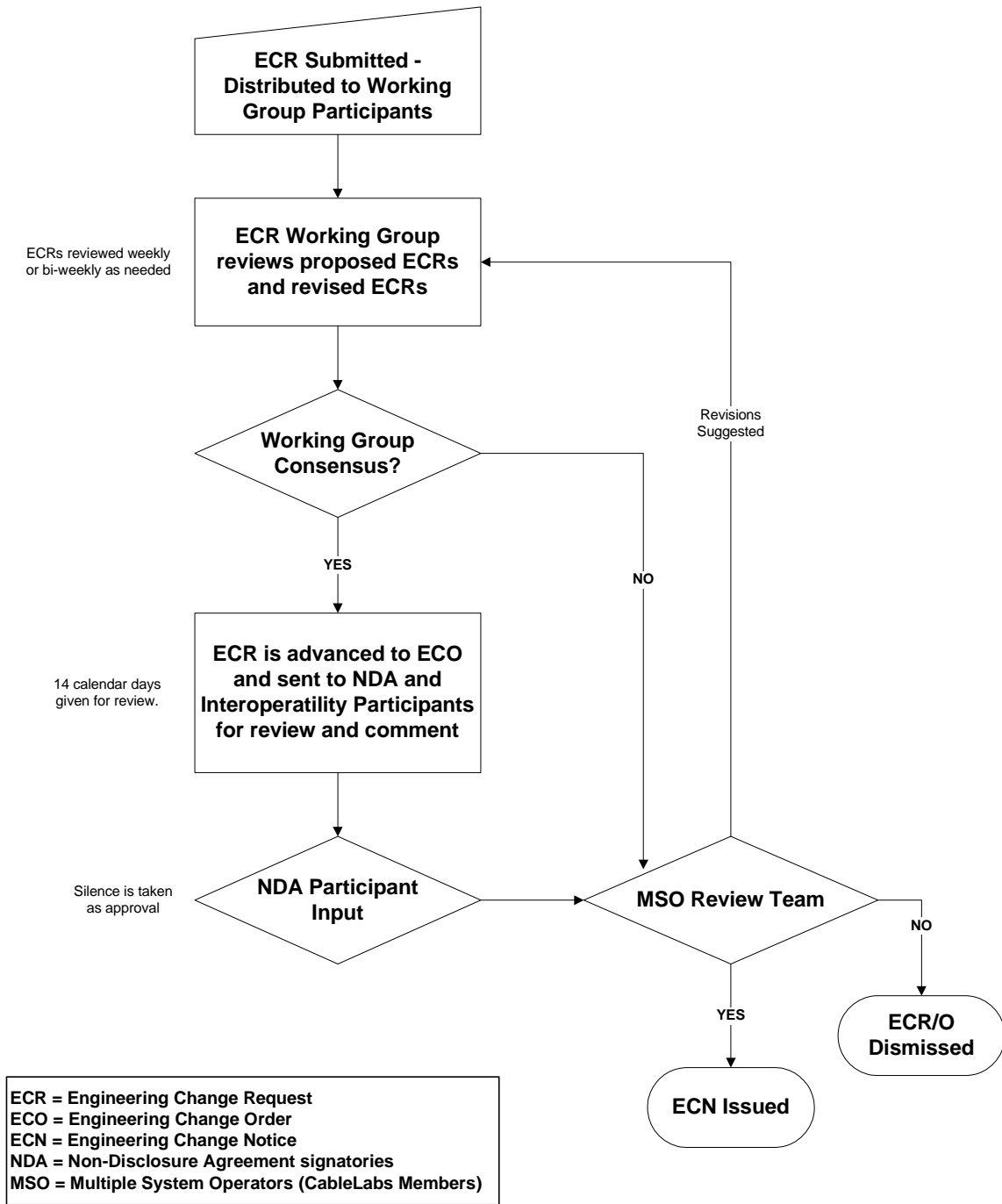
Due to the large numbers of vendors that have expressed interest in OpenCable documents, vendors should be aware that the CableLabs OpenCable staff will not be able to provide individual responses to each vendor's ECR. Receipt of ECR submissions will be confirmed by email, either directly or by copying the author on the submission of the ECR to the appropriate OpenCable Working Group. Please be assured that all ECRs will be duly considered. Final disposition of ECRs is at the sole discretion of the OpenCable MSO Technical Review Team.

Upon receipt of an ECR, it will be assigned to the appropriate OpenCable Working Group comprising vendors, MSOs, and CableLabs staff. Discussions of the Working Group may be held either via e-mail or teleconference. The goal of the Working Group discussions are to clarify any issues related to the ECR, identify impact on the specification and testing regime, make changes to the ECR or submit additional ECRs, and agree upon final wording for the ECO.

If a consensus is reached regarding the ECR, an Engineering Change Order (ECO) will be issued to all participants in the OpenCable Project that have executed the Confidential Information Access Agreement via email reflector (over 500 companies). In order to make this process successful, participants must monitor the OpenCable reflectors to ensure that the proposed changes, and discussions/subsequent changes are for the greater good of the industry and not for any one particular vendor company. Upon approval of the ECO by the OpenCable MSO Technical Team, an Engineering Change Notice (ECN) is issued.

The diagram and outline on the following pages provides an overview of the ECR, ECO, ECN process. This process is subject to change as reasonably determined by CableLabs.

OpenCable™ Engineering Change Process



ECR/ECO/ECN Review Process

ECR/ECO/ECN Review Process

- *Engineering Changes (ECs) will be logged and assigned a sequential number.*
- *The ECR will be distributed by email and posted on DocZone to the appropriate Working Group for review and clarification. The ECR Working Groups are made up of MSO representatives, vendors with a specific technical expertise and interest in the affected technology and a willingness to actively participate in the Working Group, and CableLabs OpenCable staff.*
- *Each ECR is reviewed by the appropriate Working Group until consensus is gained to advance it to ECO, or it is sent to the OpenCable MSO Technical Team for direction. Discussions of the Working Group may be held either via e-mail or teleconference. The goal of discussions are to clarify any issues related to the ECR, identify impact on the specification and testing regime, make changes to the ECR or submit additional ECRs, and agree upon final wording for the ECO. Final disposition of the ECR is at the sole discretion of the OpenCable MSO Technical Team.*
- *If approved, it becomes an Engineering Change Order (ECO).*
- *The ECO is posted on DocZone, goes to the full NDA Participant List and to the OpenCable MSO Technical Team for comment and consensus (2-weeks). The review period may be reasonably shortened or extended by CableLabs. Silence is taken as approval. Changes may be made to the ECO based upon the comments received. Final disposition is made by the OpenCable MSO Technical Team.*
- *Once approved, the ECO becomes an Engineering Change Notice (ECN).*
- *The ECN is posted on DocZone and becomes part of the Specification upon posting. Notice is given to the full OpenCable Participant List.*
- *Unless agreed otherwise implementers must conform to the ECN by the Effective Date listed in the ECN.*
- *Accumulated ECNs are periodically incorporated into the Specification, and a new version of the specification is published.*

ECR FORM Instructions

ECR's

- *Use Engineering Change Request Form (ECR) located at https://www.cablelabs.com/doczone/opencable/requirements/ecs/OC_ECR_Form.dot/attach/ECR_Form.dot.*
- *Can originate by anyone at anytime. Applies to Issued Specifications.*
- *One ECR can include all editorial comments for a given specification.*
- *One ECR must be submitted for each separate technical issue.*
- *All required information on the ECR Form must be supplied.*
- *Must be submitted electronically to opencable-ec@cablelabs.com.*

ECR Required Information

- *Full identity of person & company making submission*
- *Document Reference Number, Section Numbers*
- *Short Description of Proposed Change (title of the EC)*
- *Detailed Problem Statement*
- *Proposed Changes - How would you fix it (including redline to Specification)?*

Ramifications - What is the impact? It is the duty of the ECR submitter to identify any impacts to the PICS.

CableLabs®
OpenCable™ Engineering Change Request

EC TRACKING INFORMATION (To be completed by CableLabs only)

Engineering Change Identifier			
Affected Spec			
ECR Posting Date		Comment Period End Date	N/A for ECRs
ECO Date		Comment Period End Date	
ECN Date			
Effective Date/Cert Wave			
Severity (check one)	Priority -	High <input type="checkbox"/>	Normal <input type="checkbox"/> Low <input type="checkbox"/>

AUTHOR INFORMATION

Primary Author	
Company	
Address	
City, State Zip	
Country	
Phone	
Fax	
E-mail Address	
Additional Authors/Contributors	
Date sent to CableLabs	
Date of Revision Request -	
Brief Revision Description -	

SPECIFICATION CHANGE DETAILS

Affected Specification To obtain latest spec #, click here: http://www.opencable.com/specifications/ Please include the spec code – i.e. OC-SP-HOST-CFR-Ixx-yymmdd)	
Type of Change - Request contains technical changes Yes <input type="checkbox"/> No <input type="checkbox"/> Technical changes may require a vendor to change the design of the product. Editorial changes are points of clarification or clean-up but would not under any circumstances require a change to the product. <i>Note: If the ECR contains changes of both types, please identify the type of change in the text below prior to each change.</i>	

ONE-SENTENCE SUMMARY OF PROPOSED ENGINEERING CHANGE -

DETAILED PROBLEM DESCRIPTION -

PROPOSED SPECIFICATION CHANGES (include section number, title, and paragraph. This section is only for changes affecting text and graphics in specification, a separate section is provided below for changes to APIs/java code files in the OCAP Annexes.)

CHANGE #1 – PLEASE INDICATE WHETHER TECHNICAL OR EDITORIAL: _____

ORIGINAL SPEC TEXT:

NEW SPEC TEXT:

CHANGE #2 – PLEASE INDICATE WHETHER TECHNICAL OR EDITORIAL: _____

ORIGINAL SPEC TEXT:

NEW SPEC TEXT:

PROPOSED OCAP API/JAVA SOURCE CODE CHANGES (include API/java file name, cut and paste old code and new code, make sure you have checked the code to ensure it compiles correctly) -

CHANGE #1 – PLEASE INDICATE WHETHER TECHNICAL OR EDITORIAL: _____

ORIGINAL JAVA CODE (source code available on LiveLink at <http://livelink.cablelabs.com/Livelink/livelink.exe?func=ll&objId=1593714&objAction=browse&sort=name>):

NEW JAVA CODE:

CHANGE #2 – PLEASE INDICATE WHETHER TECHNICAL OR EDITORIAL: _____

ORIGINAL JAVA CODE:

NEW JAVA CODE:

PICS CHANGE DETAILS (required before advancing to ECO)	
PICS document affected	
Device affected (Host/POD)	

PROPOSED PICS CHANGES

Change #1

ORIGINAL TEST CASE TEXT:

NEW TEST CASE TEXT:

End of Request