

**DIGITAL CERTIFICATE SUBSCRIBER AGREEMENT  
(for VTN Certificates)  
for VTN Implementations Built in Compliance with the  
Open Automated Demand Response Alliance Specifications**

This Digital Certificate Subscriber Agreement (“Agreement”), is made effective as of \_\_\_\_\_ (the “Effective Date”) by and between Kyrio, Inc., a trade name of NetworkFX, Inc., a wholly-owned subsidiary of Cable Television Laboratories, Inc., (“Kyrio™”) a Delaware corporation with offices at 858 Coal Creek Circle, Louisville, Colorado 80027-9750, PHONE: 303-661-3438; FAX: 303-664-8156 and the party identified below (“Subscriber”).

Organization Name: (Full Legal Name of Entity executing this Agreement)	Legal Contact:
Main Corporate Headquarters Address: (city, state or province, postal code, country)	Title:
	Phone:
	Fax:
	E-mail:

Kyrio maintains and operates a Public Key Infrastructure (PKI) on behalf of the Open Automated Demand and Response Alliance (“OpenADR Alliance”) for issuing Digital Certificates that may be embedded into Certified Virtual Top Node (VTN) implementations built to OpenADR Alliance specifications and in conformance to the OpenADR Alliance Certificate Policy (the “Specifications”).

Kyrio, on behalf of OpenADR Alliance, hereby grants to Subscriber authorization to obtain and embed RSA or ECC Digital Certificates into Certified VTN implementations built to Specifications in accordance with the terms and conditions of this Agreement. **Please check the appropriate box for the type of certificates you wish to obtain.**

**RSA VTN Certificates**  
*(Complete Exhibits A and B)*

**ECC VTN Certificates**  
*(Complete Exhibits A and C)*

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

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

<b>KYRIO, INC.</b>	<b>SUBSCRIBER NAME:</b>
By:	Signature:
Name:	Name:
Title:	Title:

## Agreement

### **1.0 Definitions**

- 1.1. “Certificate Manager” means a service manager identified by Kyrio that manages certain aspects of the OpenADR Alliance PKI, such as, but not limited to, hosting the PKI Root Certification Authority (CA). In the event Kyrio does not identify the Certificate Manager, the Certificate Manager shall be the entity that hosts the CA from which Subscriber receives its digital certificates.
- 1.2. “Certified” means a VTN implementation that has been tested by OpenADR Alliance as compliant with the Specifications.
- 1.3. “VTN Certificate” means a Digital Certificate installed in a VTN implementation to authenticate the VTN to OpenADR Alliance Virtual End Node (VEN) implementations.
- 1.4. “Compliant” means that the Certified VTN implementation is, in OpenADR Alliance’s ultimate and reasonable determination, materially constructed to the Specifications.
- 1.5. “Digital Certificate” means those VTN implementation digital certificates as described in the Specifications.
- 1.6. Elliptic Curve Cryptography “ECC” is an approach to PKI based on the algebraic structure of elliptic curves over finite fields. Subscribers can select to use ECC or RSA based certificates.
- 1.7. “Public Key Infrastructure” (PKI) means the architecture, organization, techniques, practices, and procedures that collectively support the implementation and operation of a digital certificate-based public key cryptographic system.
- 1.8. “RSA” is an algorithm for PKI based on the presumed difficulty of factoring large integers. Subscribers can select to use RSA or ECC based certificates.
- 1.9. “Wrongful Use” means Subscriber has knowingly or with gross negligence embedded a Digital Certificate in a VTN implementation or any other product or application that is not Compliant.

### **2.0 Digital Certificate Authorization**

- 2.1. Upon Certification of a VTN implementation by OpenADR Alliance, and receipt of a complete and executed Agreement, payment of appropriate fees (see Section 5.0), the Subscriber’s information (see Exhibit A), the Naming Documents (see Exhibit B or C based on the selection of using RSA or ECC certificates), and verification of Subscriber’s identity for security purposes, Kyrio, as authorized agent of OpenADR Alliance, authorizes Subscriber to receive Digital Certificates issued from one of the OpenADR Alliance VTN CAs (RSA or ECC).

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

- 3.1. **Production Digital Certificates.** Subscriber may, upon payment and authorization, as specified in this Agreement, download and use OpenADR Alliance production Digital Certificates.
- 3.2. **Embedding of Digital Certificates.** Subscriber shall not embed or otherwise use the Digital Certificates in any VTN implementation that is not Compliant. Subscriber shall not embed or otherwise use any Digital Certificate associated with a private key that Subscriber knows or should have known was stolen, intercepted or otherwise compromised in any way.

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- 3.3. **Security of Digital Certificate Private Keys.** Subscriber shall safeguard the Digital Certificate private keys to ensure that the private keys are not lost, stolen, embedded in a product other than a VTN implementation, or otherwise used in a manner that may compromise, or actually does compromise, the OpenADR Alliance PKI, as OpenADR Alliance may determine in its sole discretion.
  - 3.4. **Automated Request/Receipt of Digital Certificates.** Within thirty (30) days after receipt of the Annual Maintenance Fee, Kyrio shall cause the Certificate Manager to send to Subscriber certain secure software and an administrator token for securely obtaining Digital Certificates in an automated fashion. Subscriber shall install and use the software and administrator token to submit requests for, and receive, Digital Certificates.
  - 3.5. **No Other Rights.** OpenADR Alliance retains all right, title, and interest in and to its trademarks, the OpenADR Alliance Roots, intermediate certification authorities and Digital Certificates. Kyrio owns and grants no rights, title or interest in any trademark, trade name, service mark, business name or goodwill of Kyrio.

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

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

#### **5.0 Fees**

- 5.1. **Fees.** Subscriber shall pay to Kyrio, in advance. (Please contact [info@kyrio.com](mailto:info@kyrio.com) for fee information). Kyrio may, upon thirty (30) days prior notice, modify the Fees payable for the following year, provided that such change shall not exceed an amount commensurate with any increase in Kyrio 's costs (including, but not limited to, the cost of inflation). All payments to Kyrio shall be in U.S. dollars.

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- 5.2. **Applicable Taxes.** The Fees paid by Subscriber hereunder are exclusive of, and Subscriber shall pay, all sales, use, value added, excise, income tax, withholding tax, and any other taxes, fees or charges (other than Kyrio or OpenADR Alliance income taxes or other such taxes directly related to their businesses, such as payroll taxes) that may be levied upon either party by taxing authorities other than the United States in connection with this Agreement and shall pay all income taxes that may be levied upon Subscriber.

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

- 6.1. Subscriber warrants that it is a current member of OpenADR Alliance and the Subscriber's VTN implementation is built to the OpenADR Alliance Specifications.
- 6.2. **Disclaimer of Warranties.** TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE DIGITAL CERTIFICATES, USE OF WHICH IS AUTHORIZED HEREUNDER, ARE PROVIDED "AS IS" AND KYRIO, THE CERTIFICATE MANAGER, AND OPENADR ALLIANCE DISCLAIM ALL REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, ACCURACY, SECURITY, OR NON-INFRINGEMENT.
- 6.3. **Indemnification.** In addition to the requirement set for in the OpenADR Alliance Certificate Policy, Subscriber shall indemnify and hold harmless Kyrio, OpenADR Alliance, the Certificate Manager and their respective, directors, employees, and agents, for any claim arising from or related to Subscriber's use and implementation of the Digital Certificates, including, without limitation, Wrongful Use. Such indemnification obligations shall be subject to: (i) Kyrio, OpenADR Alliance, and/or the Certificate Manager notifying Subscriber, in writing of any such claim and (ii) Subscriber having the sole control of the defense and all negotiations for any settlement or compromise of such claim, provided, however, that Kyrio, OpenADR Alliance, and/or the Certificate Manager may participate in such defense using counsel of its own choice and at its sole expense.
- 6.4. **Limitation of Liability.** TO THE MAXIMUM EXTENT PERMITTED BY LAW, WITH THE EXCEPTION OF SUBSCRIBER'S GROSS NEGLIGENCE, WILLFUL ACTS OR "WRONGFUL USE", IN NO EVENT SHALL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT FOR ANY SPECIAL, INDIRECT, CONSEQUENTIAL, OR PUNITIVE DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES WHICH REFLECT LOST BUSINESS, PROFITS OR REVENUE OBTAINED OR LOST, OR THE COSTS OF RECONSTRUCTING DATA OR REBUILDING SERVER IMPLEMENTATIONS, WHETHER DAMAGES OF THIS NATURE WERE FORESEEABLE OR NOT, AND EVEN IF THAT PARTY HAD BEEN ADVISED THAT DAMAGES OF THIS NATURE WERE POSSIBLE. IN NO EVENT SHALL EITHER PARTY BE LIABLE UNDER THIS AGREEMENT TO THE OTHER PARTY FOR ANY AMOUNT EXCEEDING THE FEES ACTUALLY RECEIVED BY KYRIO FROM SUBSCRIBER.
- 6.5. **Subscriber Liability for Subscriber Supplied Information.** Subscriber is solely liable for the resulting Digital Certificates created from the information Subscriber provides in the exhibits attached hereto and incorporated by this reference. Failure to completely and correctly complete the exhibits will result in incorrect Digital Certificates which may require Subscriber to purchase additional Digital Certificates.

## **7.0 General**

- 7.1. **Notices.** Any notices, required or permitted to be made or given to either party pursuant to this Agreement shall be in writing and shall be delivered to the address set forth on the first page or in Exhibit A, or to such other address as the receiving party may have designated by written notice given to

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the other party. Legal notices shall be sent to the person listed as the Legal Contact. Technical notices shall be sent to the name listed as the Technical Contact.

- 7.2. **Export.** Subscriber shall not export or re-export (directly or, knowingly indirectly) any Digital Certificates, documentation, or other technical data without complying with the U.S. Export Administration Act and the associated regulations.
- 7.3. **Audit.** Kyrio or its duly authorized representatives shall be permitted, upon reasonable notice, and subject to appropriate non-disclosure terms, to inspect all records pertaining to the Digital Certificates, including, without limitation, records related or pertaining to the security, usage, and distribution of the Digital Certificates. The inspections may be made notwithstanding termination of this Agreement while any outstanding claim remains unsettled in the view of either party. In the event Kyrio needs to conduct an audit due to a discrepancy discovered in a prior audit, Kyrio may charge Subscriber for reasonable airfare, meals and lodging for such subsequent audit.
- 7.4. **Irreparable Harm.** Subscriber acknowledges and agrees that due to the unique and sensitive nature of the use of the Digital Certificates authorized hereunder, including any private keys therein, there can be no adequate remedy at law for breach of Subscriber's obligations hereunder, that such breach or unauthorized use or release of the Digital Certificates will cause material damage and result in irreparable harm. Therefore, upon any such breach or any threat thereof, Kyrio shall be entitled to appropriate equitable relief in addition to whatever remedies it might have at law.
- 7.5. **Waiver.** Any waiver by either party hereto of any breach of this Agreement shall not constitute a waiver of any subsequent or other breach.
- 7.6. **Survival.** Sections 1, 4.4, 4.5, 6, 7.2, 7.3, 7.6, 7.8, 7.9 and 7.10 shall survive any termination of the Agreement.
- 7.7. **Assignment.** Subscriber may not assign this Agreement without the express, prior written approval of Kyrio.
- 7.8. **Third Party Beneficiaries.** OpenADR Alliance and the Certificate Manager are the sole third party beneficiaries of this Agreement.
- 7.9. **Entire Agreement/Severability/Amendments.** This Agreement embodies the entire understanding of the parties with respect to the subject matter hereof and merges all prior discussions between them, and neither of the parties shall be bound by any conditions, definitions, warranties, understandings or representations with respect to the subject matter hereof other than as expressly provided herein. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be in any way affected or impaired thereby. No amendment or modification hereof shall be valid or binding upon the parties unless made in writing and signed by both parties hereto.
- 7.10. **Governing Law; Forum.** This Agreement shall be construed in accordance with the law of the state of Colorado, without regard to its conflict of laws rules. The Parties hereby agree to exclusive jurisdiction and venue in the federal/state courts located in the city and county of Denver, Colorado.

**EXHIBIT A**  
**SUBSCRIBER'S INFORMATION**

**Notes:**

- 1) Fields marked with (\*) are compulsory for the specified section.
- 2) When entering phone or fax numbers ensure that you **include country and area codes**.
- 3) **Organization name** is a compulsory field and it is recommended it be the **legally registered business name**.
  - a. Use of special characters such as () & \* % \$ # @ ! + = ^ is not permitted.

**CORPORATE INFORMATION:**

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

**SUBSCRIBER'S CORPORATE CONTACT:**

This person must work for the organization requesting this service and is an authorized representative of the organization. This individual will authorize the other account contacts including administrators who will request Certificates from Kyrio. This person may periodically receive email regarding issues or events occurring with this service.

First Name*:	Last Name*:
Title*:	E-mail*:
Phone*:	Fax:

**PRIMARY ADMINISTRATOR CONTACT:**

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

Same as the Corporate Contact?                      YES                      NO

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

**SECOND ADMINISTRATOR CONTACT:**

This person is authorized to back up the primary administrator contact. They are also authorized to request and receive certificates. An administrator certificate will be delivered to this person at this address. This will generally be the manufacturing location where production certificates are installed.

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

**SUBSCRIBER’S TECHNICAL CONTACT**

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

First Name*:	Last Name*:
Title*:	E-mail*:
Phone*:	Fax:

**SUBSCRIBER’S LEGAL CONTACT**

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

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

**SUBSCRIBER’S BILLING CONTACT:**

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

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



**EXHIBIT B  
RSA VTN CERTIFICATE NAMING APPLICATION**

**NAMING DOCUMENT FOR RSA VTN CERTIFICATES**

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

**Requestor Information:**

Organization Name:	
Requestor Name:	E-mail:
Date of Application:	Phone:

**Certificate Format:** To fill in form fields below place cursor in field, press Ctrl A and begin typing.

To Be Completed by Subscriber				
Subject DN	c=			
	o=			
	ou=	OpenADR Alliance RSA VTN Certificate		
	cn=	<DNS Name (to be entered via the CRA)>		
For Kyrio and CA Use Only				
Version	v3			
Serial number	Unique Positive Integer assigned by the CA			
Issuer DN	c=US o=OpenADR Alliance ou=RSA VTN CA0001 cn=OpenADR Alliance RSA VTN CA			
notBefore	yymmdd000000Z (Key Ceremony Date)			
notAfter	yymmdd235959Z (up to 2 years)			
Public Key Algorithm	Sha256WithRSAEncryption (1 2 840 113549 1 1 11)			
Keysize	2048-bits			
Parameters	NULL			
Standard Extensions	OID	Include	Criticality	Value
keyUsage	{id-ce 15}	X	TRUE	
digitalSignature				Set
keyEncipherment				Set
subjectAltName	{id-ce 17}	X	FALSE	
dNSName				<DNS Name>
certificatePolicies	{id-ce 32}	X	FALSE	
certPolicyID				1.3.6.1.4.1.41519.1.1
policyQualifiers				Not Set
authorityKeyIdentifier	{id-ce 35}	X	FALSE	
keyIdentifier				Calculated per Method 1

**Approval**

**Signature**

**Date**

Requester Name: \_\_\_\_\_



**EXHIBIT C**  
**ECC VTN CERTIFICATE NAMING APPLICATION**

**NAMING DOCUMENT FOR ECC VTN CERTIFICATES**

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

**Requestor Information:**

Organization Name:	
Requestor Name:	E-mail:
Date of Application:	Phone:

**Certificate Format:** To fill in form fields below place cursor in field, press Ctrl A and begin typing.

To Be Completed by Subscriber				
Subject DN	c=			
	o=			
	ou=	OpenADR Alliance ECC VTN Certificate		
	cn=	<DNS Name (to be entered via the CRA)>		
For Kyrio and CA Use Only				
Version	v3			
Serial number	Unique Positive Integer assigned by the CA			
Issuer DN	c=US o=OpenADR Alliance ou=ECC VTN CA0001 cn=OpenADR Alliance ECC VTN CA			
notBefore	yymmdd000000Z (Key Ceremony Date)			
notAfter	yymmdd235959Z (up to 2 years)			
Public Key Algorithm	ECDSAWithSHA256 (1.2.840.10045.4.3.2)			
ECC Curve	ECC P-256 (secp256r1-1.20.840.10045.3.1.7)			
Standard Extensions	OID	Include	Criticality	Value
keyUsage	{id-ce 15}	X	TRUE	
digitalSignature				Set
keyAgreement				Set
subjectAltName	{id-ce 17}	X	FALSE	
dNS Name				<DNS Name>
certificatePolicies	{id-ce 32}	X	FALSE	
certPolicyID				1.3.6.1.4.1.41519.1.1
policyQualifiers				Not Set
authorityKeyIdentifier	{id-ce 35}	X	FALSE	
keyIdentifier				Calculated per Method 1

**Approval**

**Signature**

**Date**

Requester Name: \_\_\_\_\_