The ATM Forum
Technical Committee

Low Speed Circuit Emulation Service (LSCES) Implementation Conformance Statement Proforma

AF-VTOA-0132.000

October, 1999

Addendum to af-vtoa-0119.000

This addendum adds the following informative Appendix I to af-vtoa-0119.000, Low Speed Circuit Emulation Service (LSCES). This new Appendix contains the Implementation Conformance Statement (ICS) Proforma, which is to be used by an implementor to describe compliance with af-vtoa-0119.000.
This Addendum does not make any other modification to that specification and is not intended to change any of the requirements detailed in it. In case of apparent conflict between the statements in the base specification and the annotations of "M" (mandatory) and "O" (optional) in this ICS, the text of the base specification takes precedence.

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Appendix I: Implementation Conformance Statement Proforma for Low Speed Circuit Emulation Service

This Appendix does not form an integral part of the Specification.

I.1. Introduction

In order to evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented. Such a statement is called an Implementation Conformance Statement (ICS).

I.1.1 Scope

This Appendix provides the ICS proforma for the Low Speed Circuit Emulation Services, as specified in the body of this specification. The format of this Appendix is in compliance with the relevant requirements and guidelines given in ITU-T X.290 and X.296. In most cases, statements contained in notes in the specification, which were intended as information, are not included in the ICS.

I.1.2 Normative References

[1]   X.290 (1995), OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - General concepts | ISO/IEC 9646-1:1994, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts

[2]   X.291 (1995), OSI conformance testing methodology and framework for protocol Recommendations for ITU-T applications - Abstract test suite specification | ISO/IEC 9646-2:1994, Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification

[3]   af-vtoa-0119.000, Low Speed Circuit Emulation Services, May 1999

I.1.3 Definitions

This Appendix uses the following terms defined in X.290:
- Implementation Conformance Statement (ICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, and information object ICS.
- ICS proforma: A document, in the form of a questionnaire, which, when completed for an implementation or system, becomes an ICS.

I.1.4 Acronyms

C   Conditional
ICS   Implementation Conformance Statement
IUT   Implementation under test
M   Mandatory requirements
N/A   Not applicable, because the conditions for status are not met
O   Optional (may be selected to suit the implementation, provided that any requirements applicable to the options are observed)
O.n   Optional, but support is required for at least one of the options in the group labeled with the same numeral "n".
SUT   System under test

I.1.5 Conformance

The supplier of an implementation which is claimed to conform to the ATM Forum Specification for Low Speed Circuit Emulation Service is required to complete a copy of the ICS proforma provided in this Annex and is required to provide the information necessary to identify both the supplier and the implementation.

I.2. Identification of the Implementation

Implementation Under Test (IUT) Identification

`IUT Name:`
_____

`IUT Version:`
_____

System Under Test (SUT) Identification

`SUT Name:`
_____

`Hardware Configuration:`
_____

_____

_____

`Operating System:`
_____

Product Supplier

`Name:` _____

`Address:`
_____

_____

`Telephone Number:`
_____

`Facsimile Number:`
_____

`E-mail Address:`
_____

`Additional Information:`
_____

Client

`Name:` _____

`Address:`
_____

_____

```
Telephone Number:
```
_____

```
Facsimile Number:
```
_____

```
E-mail Address:
```
_____

```
Additional Information:
```
_____

ICS Contact Person

```
Name:
```
_____

```
Address:
```
_____

_____

```
Telephone Number:
```
_____

```
Facsimile Number:
```
_____

```
E-mail Address:
```
_____

```
Additional Information:
```
_____

ICS/System Conformance Statement

```
Provide the relationship of the ICS with the System Conformance
Statement for the system:
```

_____

_____

_____

Identification of the implementation

This ICS proforma applies to the following:

ATM Forum Low Speed Circuit Emulation Service, af-vtoa-0132.000, (May, 1999)

I.3. ICS Proforma

I.3.1 Global statement of conformance

The implementation described in this ICS meets all of the mandatory requirements of the reference specification.

[ ] YES
[ ] NO

Note: Answering "No" indicates non-conformance to the specified implementation. Non-supported mandatory capabilities are to be identified in the following tables, with an explanation by the implementor explaining why the implementation is non-conforming.

I.3.2 Instructions for Completing the ICS Proforma

The ICS Proforma is a fixed-format questionnaire. Answers to the questionnaire should be provided in the rightmost columns, either by simply indicating a choice (such as Yes or No), or by entering a value or a set of range of values. Not applicable (N/A) should be checked for those entries that do not apply due to the "conditions for status" not being met.

A supplier may also provide additional information, categorized as exceptional or supplementary information. These additional information should be provided as items labeled X.$<i>$ for exceptional information, or S.$<i>$ for supplemental information, respectively, for cross reference purposes, where $<i>$ is any unambiguous identification for the item. The exception and supplementary information are not mandatory and the ICS is complete without such information. The presence of optional supplementary or exception information should not affect test execution, and will in no way affect interoperability verification. The column labeled "Reference" gives a pointer to sections of the specification for which the ICS Proforma is being written.

I.3.3   Introduction

Item	Does the Implementation…	Status	Conditions for status	Reference	Support
Reference Model					
INR-1	support the use of SVCs to transport traffic over AAL1?	O.1		1.2	Yes__No__
INR-2	support the use of PVCs to transport traffic over AAL1?	O.1		1.2	Yes__No__
INR-3	support the role of a DTE?	O.2		1.1	Yes__No__
INR-4	support the role of a DCE?	O.2		1.1	Yes__No__
	O.1 At least one of these must be supported. O.2 At least one of these must be supported.				

I.3.4   Interfaces Supported

Item	Does the Implementation…	Status	Conditions for status	Reference	Support
INS-1a	support V.35 interfaces?	O.3		2.1	Yes__No__
INS-1b	support EIA-449 interfaces?	O.3		2.1	Yes__No__
INS-1c	support TIA/EIA-530 interfaces?	O.3		2.1	Yes__No__
INS-2	support ATM interfaces?	M		2.4.1	Yes__No__
	(If yes, list ATM physical layer interfaces supported.)			2.4.1	1. 2. 3.
INS-3	support UNI 3.1 for IWF-ATM network communication?	O.4	INS-2	4.0	N/A__Yes__No__
INS-4	support UNI 4.0 for IWF-ATM network communication?	O.4	INS-2	4.0	N/A__Yes__No__
	O.3 At least one of these must be supported O.4 At least one of these must be supported if SVCs are supported				

I.3.5　Capabilities Supported

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
Signalling					
CSI-1	support initiation of SVCs by setting RTS high?	O	INR-1	5.1	N/A__Yes__No__
CSI-2	support CES 2.0 signaling when a DS-1 service rate is used?	O	INR-1	4.0	N/A__Yes__No__
CSI-3	support CES 2.0 signaling when a E1 service rate is used?	O	INR-1	4.0	N/A__Yes__No__
CSI-4	support synchronous timing?	O.5		2.1.2	Yes__No__
CSI-5	support SRTS timing?	O.5		2.1.2	Yes__No__
CSI-6	support Adaptive timing?	O.5		2.1.2	Yes__No__
	O.5　At least one of these must be supported				
Jitter					
CJO-1	provide signal quality for V.35 that meets ITU-T H.14 for signal quality?	M	INS-1a	2.1.3	N/A__Yes__No__
CJO-2	provide signal quality for EIA-449 that meets EIA-334-B?	M	INS-1b	2.1.3	N/A__Yes__No__
CJO-3	provide signal quality for EIA/TIA-530A that meets EIA-334-B?	M	INS-1c	2.1.3	N/A__Yes__No__
Electrical					
CEE-1	meet the electrical requirements of ITU-T V.28 and appendix 2 of ITU-T V.35 when providing V.35 interfaces?	M	INS-1a	2.1.6	N/A__Yes__No__
CEE-2	meet the electrical requirements of EIA/TIA-422-B and EIA-423-A when providing EIA-449 interfaces?	M	INS-1b	2.1.6	N/A__Yes__No__
CEE-3	meet the electrical requirements of EIA/TIA-422-B and EIA-423-A when providing EIA/TIA-530A interfaces?	M	INS-1c	2.1.6	N/A__Yes__No__
Service Side Rates					
SSR-1	support the rate of 1200 bit/s?	M	INS-1a, INS-1b, or INS-1c	2.1	N/A__Yes__No__
SSR-2	support the rate of 2400 bit/s?	M	INS-1a, INS-1b, or INS-1c	2.1	N/A__Yes__No__
SSR-3	support the rate of 4800 bit/s?	M	INS-1a, INS-1b, or INS-1c	2.1	N/A__Yes__No__

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
SSR-4	support the rate of 9600 bit/s?	M	INS-1a, INS-1b, or INS-1c	2.1	N/A__Yes__No__
SSR-5	support any other rates?	O	INS-1a, INS-1b, or INS-1c	2.1	N/A__Yes__No__
	(If yes, list other rates supported.)				1. 2. 3.
Data Transfer Service Type					
DTS-1	Does the IWF use the Unstructured Data Transfer mode defined in ITU-T I.363.1	M		2.2.1	Yes__No__

I.3.6   Alarms and Error Conditions

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
Loss of Signal (LOS) at the IWF Service Interface					
LOS-1	detect the Loss of Signal (LOS) at the service interface?	M		2.1.4	Yes__No__
LOS-2	detect LOS when operating as a DTE and a receive data signal is not present?	O	INR-3 and LOS-1	2.1.4	N/A__Yes__No__
LOS-3	detect LOS when operating as a DTE and receive clock signal is not present?	O	INR-3 and LOS-1	2.1.4	N/A__Yes__No__
LOS-4	detect LOS when operating as a DTE and DCE ready is not set?	O	INR-3 and LOS-1	2.1.4	N/A__Yes__No__
LOS-5	detect LOS when operating as a DTE and Clear To Send (CTS) is not set?	O	INR-3 and LOS-1	2.1.4	N/A__Yes__No__
LOS-6	detect LOS when operating as a DCE and a transmit data signal is not present?	O	INR-4 and LOS-1	2.1.4	N/A__Yes__No__
LOS-7	detect LOS when operating as a DCE and transmit clock signal is not present?	O	INR-4 and LOS-1	2.1.4	N/A__Yes__No__
LOS-8	detect LOS when operating as a DCE and DTE ready is not set?	O	INR-4 and LOS-1	2.1.4	N/A__Yes__No__
LOS-9	detect LOS when operating as a DCE and Ready To Send is not set?	O	INR-4 and LOS-1	2.1.4	N/A__Yes__No__
LOS-10	send an "all-ones" when a LOS is detected?	M	LOS-1	2.1.4	N/A__Yes__No__
Lost and Mis-Inserted Cells					
LMI-1	detect lost or mis-inserted cells?	M		2.3.3	Yes__No__
LMI-1	insert dummy cells when lost cells are detected?	M	LMI-1	2.3.3	Yes__No__
LMI-2	drop cells that are determined to be mis-inserted?	M	LMI-1	2.3.3	Yes__No__

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
LMI-3	after a persistent buffer starvation condition of 5 +/-.5 seconds, trigger a Loss of Cells fault?	M	LMI-1	2.3.4	Yes__No__
LMI-4	RTS lead get set low and data from DCE dropped when IWF is DTE and Loss of Cells fault occurs?	M	LMI-1	2.3.4	Yes__No__
LMI-5	CTS lead get set low and data from DTE get dropped when the IWF is DCE and Loss of Cells fault occurs?	M	LMI-1	2.3.4	Yes__No__
LMI-6	drop a specific number of bits when a buffer overflow occurs? How many bits?	M		2.3.4	_____

I.3.7   ATM Signalling Procedures

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
Signalling of SVCs					
ASS-1	support passive SVCs?	O	INR-1	5.1	N/A__Yes__No__
ASS-2	support active SVCs?	O	INR-1	5.1	N/A__Yes__No__
ASS-3	support SVCs initiated by some event (such as RTS being set high)?	O	INR-1	5.1	N/A__Yes__No__
ASS-4	accept the call with the smaller address in the event of a call collision?	M	INR-1	5.2	N/A__Yes__No__
ASS-5	retry the call automatically in the event that a call fails to connect?	M	INR-1	5.3	N/A__Yes__No__
ASS-6	apply a random retry interval?	O	ASS-5	5.3	N/A__Yes__No__

I.3.8   Service Side Interface Support

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
Signaling Leads					
SSI-1	support the leads shown in Table 1 for each supported interface?	M		2.4.2	Yes__No__

I.3.9 Service and Performance Considerations

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
Partial Cell fill					
SPC-1	support partial cell fill?	O	CSI-5	2.2.2	Yes__No__

I.3.10 Signalling

Item	Does the Implementation …	Status	Conditions for status	Reference	Support
SIG-1	support the address formats given in af-ra-0106.000 ?	M		4.1	Yes__No__
SIG-2	provide a means to configure the data rate of the service interface and the timing configuration ?	M		4.2	Yes__No__
SIG-3	include the forward and backward peak cell rate in the traffic descriptor ?	M		4.2.1	Yes__No__
SIG-4	calculate the forward and backward peak cell rate as described in 3.1 ?	O	SIG-3	3.1	N/A__Yes__No__
SIG-5	code the Broadband Bearer Capability IE as shown in Table 4-1 ?	M		4.2.2 and Table 4-1	Yes__No__
SIG-6	code the QoS as shown in Table 4-2 ?	M		4.2.3 and Table 4-1	Yes__No__
SIG-7	code the AAL Parameters as shown in Table 4-3 ?	M		4.2.4 and Table 4-1	Yes__No__
SIG-8	release the call with cause 93 if the received parameters are not supported ?	M		4.2.4	Yes__No__
SIG-9	code the Broadband Low Layer IE as shown in Table 4-4 ?	M		4.2.5 and Table 4-4	Yes__No__