

## **Anhang A - Verzeichnis ATM-bezogener Standards der wichtigsten internationalen Gremien**

### **Standards der ITU:**

E.164	Adressing
G.702	Digital Hierarchy Bit Rates
G.703	Physical/electrical Characteristics of Hierarchical Digital Interfaces
G.704	Synchronous Frame Structure used at Primary and Secondary Hierarchical Levels
G.706	Frame Alignment and Cyclic Redundancy Check (CRC) Procedures relating to Basic Frame Structures defined in Recommendation G.704
G.707	Synchronous Digital Hierarchy Bit Rates
G.708	Network-Node Interface for the Synchronous Digital Hierarchy
G.709	Synchronous Multiplexing Structure
I.113	Vocabulary of Terms for Broadband Aspects of ISDN
I.121	Broadband Aspects of ISDN
I.150	B-ISDN ATM Functional Characteristics
I.211	B-ISDN Service Aspects
I.311	B-ISDN General Network Aspects
I.321	B-ISDN Protocol Reference Model and ist Application
I.327	B-ISDN Network Functional Architecture
I.350	Quality of Service (QoS) for Bearer Service and Tele-Service
I.356	B-ISDN ATM Layer Cell Transfer Performance
I.361	B-ISDN ATM Layer Specification
I.362	B-ISDN ATM Adaptation Layer (AAL) Functional Description
I.363	B-ISDN ATM Adaptation Layer (AAL) Specification
I.364	Support of Broadband connectionless data service on B-ISDN
I.371	Traffic and Congestion control in B-ISDN
I.413	B-ISDN User-Network Interface
I.414	Overview of Recommendations on Layer 1 for ISDN and B-ISDN customer accesses
I.430	Layer 1 Specification at the Basic Rate
I.431	Layer 1 Specification at the Primary Rate User-Network Interface
I.432	B-ISDN User-Network Interface Physical Layer Specification
I.441	ISDN User-Network Interface Data Link Layer Specification
I.600	Application of Maintenance Principles to ISDN Subscriber Access and Subscriber Installation
I.610	OAM Principles of B-ISDN Access
M.20	Maintenance Philosophy for Telecommunications Network
M.30	Principles for a Telecommunication Management Network
M.36	Principles for the Maintenance of ISDNs
Q.2010	General Introduction to Signalling in B-ISDN
Q.2100	B-ISDN Signalling AAL, overview
Q.2110	B-ISDN SAAL-Service-Specific Connection Oriented Protocol (SSCOP)

Q.2120	B-ISDN Meta Signalling
Q.2130	B-ISDN SAAL-Service Specific Coordination Function (SSCF)
Q.2140	B-ISDN SSCF at NNI
Q.2610	B-ISDN Usage of Cause and Location in B-ISDN User Part and DSS2
Q.2650	Zusammenarbeit zwischen DSS2 und ISUP
Q.2660	B-ISDN Internetworking Between Broadband ISDN User Part (B-ISUP) and Narrowband ISDN User Part (N-ISUP)
Q.2730	B-ISDN B-ISUP Supplementary Services
Q.2761	B-ISDN B-ISUP Functional Description
Q.2762	B-ISDN B-ISUP General Functions of Messages and Signals
Q.2763	B-ISDN B-ISUP Formats and Codes
Q.2764	B-ISDN B-ISUP Basic Call Procedures
Q.2931	Signalling in B-ISDN

### **Standards der IETF**

RFC 1483	Multiprotocol Encapsulation over ATM Adaptation Layer 5
RFC 1577	Classical IP and ARP over ATM
RFC 1626	Default IP MTU for use over ATM AAL 5
RFC 1680	IPnG Support ATM Services
RFC 1755	ATM Signalling Support for IP over ATM

### **Standards der ETSI**

DETS 300-298-1	Basic characteristics and functional specification of ATM
ETS 300 337	Generic frame structures for the transport of various signals (including ATM cells)
ETS 300 349	ATM AAL specification - type 3/4
ETS 300 405	MAN Interconnection of MAN Switching Systems
ETS 300 428	ATM AAL specification - type 5
ETS 300 436-1	ATM AAL Service Specific Connection Oriented Protocol (SSCOP)
ETS 300 437-1	Signalling ATM Adaptation Layer (SAAL) Service Specific Coordination Function (SSCF) for support of signalling at the UNI
ETS 300 438-1	Signalling ATM Adaptation Layer (SAAL) Service Specific Coordination Function (SSCF) for support of signalling at the NNI
ETR 117	ATM Signalling AAL requirements
ETR 122	CBDS over ATM
TCRTR 005	Transport of ATM cells over various transmission systems including cell based systems
TCRTR 014	Harmonisation of transport network architecture and protocol reference model for the transport of ATM cells

## User Network Interface

ETS 300 299

ETS 300 300

## ATM Layer

ETS 300 298-1

ETS 300 298-2

## Ressource Management/Traffic Control

ETS 300 301

## ATM Adaptation Layer

DE/NA-52617 (AAL 1)

DE/NA-52618 (AAL 3/4)

DE/NA-52619 (AAL 5)

DE/NA-52620

## Operating and Maintenance

DE/NA-52209

DTR/NA-52204

DE/NA-52806

## User Network Interface signalling

DE/SPS-5024 (Basic Calls)

DE/SPS-5034 (Supplementary service)

## Signalling AAL

DE/SPS-5026-1

DE/SPS-5026-2

**Spezifikationen des ATM-Forum**

Technische Arbeitsgruppe	Spezifikationen
<b>B-ICI</b>	<ul style="list-style-type: none"> <li>■ B-ICI 1.0</li> <li>■ B-ICI 1.1</li> <li>■ B-ICI 2.0 (delta spec to B-ICI 1.1)</li> <li>■ B-ICI 2.0 (integrated specification)</li> </ul>
<b>Data Exchange Interface</b>	■ Data Exchange Interface Version 1.0
<b>ILMI</b>	■ Integrated Layer Management Interface 4.0
<b>LAN Emulation</b>	<ul style="list-style-type: none"> <li>■ LAN Emulation over ATM 1.0</li> <li>■ LAN Emulation Client Management Specification</li> <li>■ LANE 1.0 Addendum</li> </ul>

	<ul style="list-style-type: none"> <li>■ LANE Servers Management Spec v1.0</li> </ul>
<b>Network Management</b>	<ul style="list-style-type: none"> <li>■ Customer Network Management (CNM) for ATM Public Network Service</li> <li>■ M4 Interface Requirements and Logical MIB</li> <li>■ CMIP Specification for the M4 Interface</li> <li>■ M4 Public Network view</li> </ul>
<b>Physical Layer</b>	<ul style="list-style-type: none"> <li>■ ATM Physical Medium Dependent Interface Specification for 155 Mbit/s over Twisted Pair Cable</li> <li>■ DS1 Physical Layer Specification</li> <li>■ Utopia Level 1 v2.01</li> <li>■ Mid-range Physical Layer Specification for Category 3 UTP</li> <li>■ 6,312 kbit/s UNI Specification</li> <li>■ E3 UNI</li> <li>■ Utopia Level 2 v1.0</li> <li>■ Physical Interface Specification for 25,6 Mbit/s over Twisted Pair</li> <li>■ A Cell-based Transmission Convergence Sublayer for Clear Channel Interfaces</li> <li>■ 622,08 Mbit/s Physical Layer</li> <li>■ 155,52 Mbit/s Physical Layer Specification for Category 3 UTP</li> <li>■ 120 Ohm Addendum to ATM PMD Interface Spec for 155 Mbit/s over TP</li> <li>■ DS3 Physical Layer Interface Spec</li> <li>■ 155 Mbit/s over MMF Short Wave Length Lasers, Addendum to UNI 3.1</li> <li>■ WIRE (PMD to TC layers)</li> <li>■ E1</li> </ul>
<b>P-NNI</b>	<ul style="list-style-type: none"> <li>■ Interim Inter Switch Signaling Protocol (IISP)</li> <li>■ P-NNI V1.0</li> <li>■ P-NNI V1.0 Addendum</li> </ul>
<b>Service Aspects and Applications</b>	<ul style="list-style-type: none"> <li>■ Frame UNI</li> <li>■ Circuit Emulation</li> <li>■ Native ATM Services: Semantic Description</li> <li>■ Audio/Visual Multimedia Services (AMS): Video on Demand Specification</li> </ul>
<b>Signaling</b>	<ul style="list-style-type: none"> <li>■ (see UNI 3.1)</li> <li>■ UNI Signaling 4.0</li> </ul>
<b>Testing</b>	<ul style="list-style-type: none"> <li>■ Introduction to ATM Forum Test Specifications</li> <li>■ PICS Proforma for DS3 Physical Layer Interface</li> <li>■ PICS Proforma for the SONET STS-3c Physical Layer Interface</li> <li>■ PICS Proforma for the 100 Mbit/s Multimode Fibre Physical Layer Interface</li> <li>■ PICS Proforma for the ATM Layer (UNI 3.0)</li> <li>■ Conformance Abstract Test Suite for the ATM Layer for Intermediate Systems (UNI 3.0)</li> <li>■ Interoperability Test Suite for the ATM Layer (UNI 3.0)</li> <li>■ Interoperability Test Suites for Physical Layer: DS-3, STS-3c, 100 Mbit/s MMF (TAXI)</li> <li>■ PICS for DS-1 Physical Layer</li> <li>■ Conformance Abstract Test Suite for the ATM Layer (End Systems) UNI 3.0</li> <li>■ PICS for AAL 5</li> <li>■ PICS Proforma for the 51,84 Mbit/s Mid-range PHY Layer Interface</li> <li>■ Conformance Abstract Test Suite for the ATM Layer of Intermediate Systems (UNI 3.1)</li> </ul>

	<ul style="list-style-type: none"> <li>■ PICS for the 25,6 Mbit/s over Twisted Pair Cable (UTP-3) Physical Layer</li> <li>■ Conformance Abstract Test Suite for the AAL Sublayer</li> <li>■ PICS for ATM Layer (UNI 3.1)</li> <li>■ Conformance Abstract Test Suite for the UNI 3.1 ATM Layer of End Systems</li> <li>■ Conformance Abstract Test Suite of the SSCOP for UNI 3.1</li> </ul>
<b>Traffic Management</b>	■ see UNI 3.1
<b>User Network Interface</b>	<ul style="list-style-type: none"> <li>■ ATM UNI v2.0</li> <li>■ ATM UNI v3.0</li> <li>■ ATM UNI v3.1</li> <li>■ ATM UNI v4.0</li> <li>■ ILMI MIB for UNI 3.0</li> <li>■ ILMI MIB for UNI 3.1</li> <li>■ Traffic Management 4.0</li> </ul>

**Tab. A.1.:** Abgeschlossene Standards [Internet]

Technische Arbeitsgruppe	Spezifikation (in Bearbeitung)	mgl. Abschluß
<b>B-ICI</b>	<ul style="list-style-type: none"> <li>■ B-ICI 2.0 Addendum or 2.1</li> <li>■ B-ICI 3.0</li> </ul>	10/96
<b>LAN Emulation</b>	<ul style="list-style-type: none"> <li>■ LANE v2.0 LUNI Interface</li> <li>■ LANE v2.0 Server-to-Server Interface</li> </ul>	4/97 4/97
<b>MPOA</b>	■ MPOA v1.0	3/97
<b>Network Management</b>	<ul style="list-style-type: none"> <li>■ M4 SNMP MIB Network Element</li> <li>■ M3 (CNM) Update</li> <li>■ M4 Public Network View SNMP &amp; CMIP MIB</li> <li>■ M5 Carrier Interface</li> <li>■ M4 NE View</li> <li>■ CES Interworking Requirements, Logical and CMIP MIB</li> <li>■ M4 Network View</li> <li>■ M4 Network View Requirements and Logical MIB Addendum</li> <li>■ ATM Access Function Specification</li> </ul>	2/97 2/97 12/96 12/96 12/96 12/96 12/96 12/96 6/97
<b>Physical Layer</b>	<ul style="list-style-type: none"> <li>■ Inverse ATM Mux</li> <li>■ 155 Mbit/s over Plastic Optical Fiber (POF) Baseline Text</li> </ul>	12/96 -
<b>P-NNI</b>	<ul style="list-style-type: none"> <li>■ Integrated PNNI</li> <li>■ Public/Private ATM Interworking</li> <li>■ PNNI Augmented Routing (PAR)</li> <li>■ PNNI Errata</li> <li>■ PNNI ABR Addendum</li> <li>■ PNNI 2.0</li> </ul>	- - 12/97 12/97 12/96 12/97
<b>RBB (Residential Broadband)</b>	■ RBB Specification	12/96
<b>Security</b>	■ Security 1.0	8/97
<b>Service Aspects &amp; Applications</b>	<ul style="list-style-type: none"> <li>■ Directory Services</li> <li>■ AMS 1.0 Addendum</li> <li>■ API Semantic Doc 2.0</li> <li>■ AMS 2.0: VBR MPEG-2 over ATM</li> <li>■ AMS 2.0: Multimedia Desktop</li> <li>■ AMS 2.0: Interworking</li> <li>■ FUNI 1.1</li> </ul>	12/96 2/97 - - - - 2/97

<b>Signaling</b>	<ul style="list-style-type: none"> <li>■ Future work planning underway</li> <li>■ Signaling ABR Addendum</li> </ul>	- 12/96
<b>Testing</b>	<ul style="list-style-type: none"> <li>■ PICS for Signaling UNI 3.1)</li> <li>■ Conformance Abstract Test Suite for Signaling (UNI 3.1) for the User Side</li> <li>■ Conformance Abstract Test Suite for Signaling (UNI 3.1) for the Network Side</li> <li>■ PICS for the 155 Mbit/s over Twisted Pair Cable (UTP-5/STP-5) Physical Layer</li> <li>■ PICS for PNNI 1.0</li> <li>■ Performance Testing Specification</li> <li>■ SIS for LANE 1.0</li> <li>■ PICS for direct mapped DS3</li> </ul>	- 4/97 2/97 11/96 12/96 - - 2/97
<b>Traffic Management</b>	<ul style="list-style-type: none"> <li>■ Traffic Management ABR Addendum</li> </ul>	12/96
<b>Voice and Telephony over ATM</b>	<ul style="list-style-type: none"> <li>■ Circuit Emulation 2.0</li> <li>■ Landline Trunking</li> <li>■ Desktop Baseline Text</li> </ul>	12/96 1/97 1/97
<b>Wireless ATM</b>	<ul style="list-style-type: none"> <li>■ Radio Access Layer and Media Access Control Requirements Definition</li> <li>■ Mobility Management</li> <li>■ Location Management</li> <li>■ WATM Spec 1.0</li> </ul>	4/97 4/97 6/97 12/98

**Tab. A.2.:** In der Bearbeitung befindliche Standards

[Internet]