



**Normen & Standards  
Industrie 4.0  
ITU-T Standards**

Dokumentennr.	Ausgabe	Titel	Herausgeber
ITU-T A Supplement 2 *			
ITU-T A Supplement 2 *	2000-06	Guidelines on interoperability experiments	ITU Internationale Fernmeldeunion
ITU-T Series A Supplement 2			
ITU-T A Supplement 3 *	2012-07	IETF and ITU-T collaboration guidelines	ITU Internationale Fernmeldeunion
ITU-T F.747.1 * ITU-T F.747.1	2012-06	Capabilities of ubiquitous sensor networks for supporting the requirements of smart metering services	ITU Internationale Fernmeldeunion
ITU-T F.747.7 * ITU-T F.747.7	2014-10	Requirements for network-based location information conversion for location-based applications and services	ITU Internationale Fernmeldeunion
ITU-T F.748.0 * ITU-T F.748.0	2014-10	Common requirements for Internet of things (IoT) applications	ITU Internationale Fernmeldeunion
ITU-T F.748.1 * ITU-T F.748.1	2014-10	Requirements and common characteristics of the IoT identifier for the IoT service	ITU Internationale Fernmeldeunion
ITU-T G Supplement 44 *	2007-06	Test plan to verify B-PON interoperability	ITU Internationale Fernmeldeunion
ITU-T G Supplement 46	2009-05	G-PON interoperability test plan between optical line terminations and optical network units	ITU Internationale Fernmeldeunion
ITU-T G Supplement 49 *	2011-02	Rogue optical network unit (ONU) considerations	ITU Internationale Fernmeldeunion
ITU-T G.665 * ITU-T G.665	2005-01	Generic characteristics of Raman amplifiers and Raman amplified subsystems	ITU Internationale Fernmeldeunion
ITU-T G.998.1 * ITU-T G.998.1	2005-01	ATM-based multi-pair bonding	ITU Internationale Fernmeldeunion

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ITU-T G.998.1 AMD 1 * ITU-T G.998.1 (2005) AMD 1	2013-08	ATM-based multi-pair bonding; Amendment 1	ITU Internationale Fernmeldeunion
ITU-T G.999.1 * ITU-T G.999.1	2009-10	Interface between the link layer and the physical layer for digital subscriber line (DSL) transceivers	ITU Internationale Fernmeldeunion
ITU-T G.999.1 Corrigendum 1 * ITU-T G.999.1 Corrigendum 1	2010-04	LINK layer to PHY layer interface; Corrigendum 1	ITU Internationale Fernmeldeunion
ITU-T G.999.1 AMD 1 * ITU-T G.999.1 AMD 1	2014-04	Extension for flow control on the PHY-to-LINK data stream over gamma reference point	ITU Internationale Fernmeldeunion
ITU-T H.751 * ITU-T H.751	2013-03	Metadata for rights information interoperability in IPTV services	ITU Internationale Fernmeldeunion
ITU-T H.760 * ITU-T H.760	2009-03	Overview of multimedia application frameworks for IPTV services	ITU Internationale Fernmeldeunion
ITU-T H.761 * ITU-T H.761	2011-06	Nested context language (NCL) and Ginga-NCL	ITU Internationale Fernmeldeunion
ITU-T H.762 * ITU-T H.762	2011-05	Lightweight interactive multimedia environment (LIME) for IPTV services	ITU Internationale Fernmeldeunion
ITU-T H.763.1 * ITU-T H.763.1	2010-09	Cascading style sheets for IPTV services	ITU Internationale Fernmeldeunion
ITU-T H.764 * ITU-T H.764	2012-06	IPTV services enhanced script language	ITU Internationale Fernmeldeunion
ITU-T J.287 * ITU-T J.287	2014-01	Automation system to compression system communications application program interface	ITU Internationale Fernmeldeunion
ITU-T L.92 * ITU-T L.92	2012-10	Disaster management for outside plant facilities	ITU Internationale Fernmeldeunion
ITU-T L.1321 * ITU-T L.1321	2015-03	Reference operational model and interface for improving energy efficiency of ICT network hosts	ITU Internationale Fernmeldeunion
ITU-T M.1400 * ITU-T M.1400	2015-04	Designations for interconnections among operators' networks	ITU Internationale Fernmeldeunion

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ITU-T M.1401 * ITU-T M.1401	2006-07	Formalization of interconnection designations among operators' telecommunication networks	ITU Internationale Fernmeldeunion
ITU-T M.3060/Y.2401 * ITU-T M.3060/Y.2401	2006-03	Principles for the Management of Next Generation Networks	ITU Internationale Fernmeldeunion
ITU-T M.3160 * ITU-T M.3160	2008-11	Generic, protocol-neutral management information model	ITU Internationale Fernmeldeunion
ITU-T Q Supplement 64 * ITU-T Q Supplement 64	2014-02	Physical realization of next generation networks	ITU Internationale Fernmeldeunion
ITU-T Q Supplement 66 * ITU-T Q Supplement 66	2014-07	Supplement on scenarios and requirements in terms of services and deployments for IMT and IMS in developing countries	ITU Internationale Fernmeldeunion
ITU-T Q.3904 * ITU-T Q.3904	2010-06	Testing principles for IMS model networks, and identification of relevant conformance, interoperability and functionality tests	ITU Internationale Fernmeldeunion
ITU-T Q.3913 * ITU-T Q.3913	2014-08	Set of parameters for monitoring Internet of things devices	ITU Internationale Fernmeldeunion
ITU-T X Supplement 4 * ITU-T X.290 Series Supplement 4 * ITU-T X Supplement 4 * ITU-T X.Sup4 * ITU-T X.Sup4	2008-09	ITU-T X.290-series - Supplement on generic approach to interoperability testing	ITU Internationale Fernmeldeunion

Dokumentennr.	Ausgabe	Titel	Herausgeber
ITU-T X Supplement 5 * ITU-T X.290 Series Supplement 5 * ITU-T X Supplement 5 * ITU-T X.Sup5 * ITU-T X.Sup5 * ITU-T X.Supplement 5	2008-09	ITU-T X.290 series - Supplement on interoperability testing framework and methodology	ITU Internationale Fernmeldeunion
ITU-T X Supplement 15 * ITU-T X Supplement15	2012-09	ITU-T X.800-X.849 series - Supplement on guidance for creating a national IP-based public network security centre for developing countries	ITU Internationale Fernmeldeunion
ITU-T X.200 * ITU-T X.200	1994-07	Information technology - Open Systems Interconnection - Basic Reference Model: The basic model	ITU Internationale Fernmeldeunion
ITU-T X.210 * ITU-T X.210	1993-11	Information technology - Open Systems Interconnection - Basic Reference Model: Conventions for the definition of OSI services	ITU Internationale Fernmeldeunion
ITU-T X.212 * ITU-T X.212	1995-11	Information technology - Open Systems Interconnection - Data Link service definition	ITU Internationale Fernmeldeunion
ITU-T X.213 * ITU-T X.213	2001-10	Information technology - Open Systems Interconnection - Network service definition	ITU Internationale Fernmeldeunion
ITU-T X.282 * ITU-T X.282	1999-06	Elements of management information related to the OSI Data Link layer	ITU Internationale Fernmeldeunion
ITU-T X.650 * ITU-T X.650	1996-10	Information technology - Open Systems Interconnection - Basic Reference Model: Naming and addressing	ITU Internationale Fernmeldeunion
ITU-T X.731 AMD 2 * ITU-T X.731 (1992) AMD 2	2001-01	Amendment to support LIFECYCLE state	ITU Internationale Fernmeldeunion
ITU-T X.800 AMD 1 * ITU-T X.800 (1991) AMD 1	1996-10	Layer Two Security Service and Mechanisms for LANs	ITU Internationale Fernmeldeunion

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ITU-T X.901 * ITU-T X.901	1997-08	Information technology - Open Distributed Processing - Reference Model: Overview	ITU Internationale Fernmeldeunion
ITU-T X.902 * ITU-T X.902	2009-10	Information technology - Open Distributed Processing - Reference model: Foundations	ITU Internationale Fernmeldeunion
ITU-T X.903 * ITU-T X.903	2009-10	Information technology - Open Distributed Processing - Reference model: Architecture	ITU Internationale Fernmeldeunion
ITU-T X.904 * ITU-T X.904	1997-12	Information technology - Open Distributed Processing - Reference Model: Architectural Semantics	ITU Internationale Fernmeldeunion
ITU-T X.906 * ITU-T X.906	2014-10	Information technology - Open distributed processing - Use of UML for ODP system specifications	ITU Internationale Fernmeldeunion
ITU-T X.910 * ITU-T X.910	1998-09	Information technology - Open Distributed Processing - Naming framework	ITU Internationale Fernmeldeunion
ITU-T X.911 * ITU-T X.911	2014-09	Information technology - Open distributed processing - Reference model - Enterprise language	ITU Internationale Fernmeldeunion
ITU-T X.920 * ITU-T X.920	1997-12	Information technology - Open Distributed Processing - Interface Definition Language	ITU Internationale Fernmeldeunion
ITU-T X.930 * ITU-T X.930	1998-09	Information technology - Open Distributed Processing - Interface references and binding	ITU Internationale Fernmeldeunion
ITU-T X.950 * ITU-T X.950	1997-08	Information technology - Open Distributed Processing - Trading Function: Specification	ITU Internationale Fernmeldeunion
ITU-T X.952 * ITU-T X.952	1997-12	Information technology - Open Distributed Processing - Trading function: Provision of trading function using OSI Directory service	ITU Internationale Fernmeldeunion
ITU-T X.952 Corrigendum 1 * ITU-T X.952 (1997) Corrigendum 1	2005-07	X.952 (1997) Corrigendum 1	ITU Internationale Fernmeldeunion
ITU-T X.1088 * ITU-T X.1088	2008-05	Telebiometrics digital key framework (TDK) - A framework for biometric digital key generation and protection	ITU Internationale Fernmeldeunion
ITU-T X.1195 * ITU-T X.1195	2011-02	Service and content protection interoperability scheme	ITU Internationale Fernmeldeunion
ITU-T X.1209 * ITU-T X.1209	2010-12	Capabilities and their context scenarios for cybersecurity information sharing and exchange	ITU Internationale Fernmeldeunion

Dokumentennr.	Ausgabe	Titel	Herausgeber
ITU-T X.1210 * ITU-T X.1210	2014-01	Overview of source-based security troubleshooting mechanisms for Internet protocol-based networks	ITU Internationale Fernmeldeunion
ITU-T X.1211 * ITU-T X.1211	2014-09	Techniques for preventing web-based attacks	ITU Internationale Fernmeldeunion
ITU-T X.1250 * ITU-T X.1250	2009-09	Baseline capabilities for enhanced global identity management and interoperability	ITU Internationale Fernmeldeunion
ITU-T X.1251 * ITU-T X.1251	2009-09	A framework for user control of digital identity	ITU Internationale Fernmeldeunion
ITU-T Y Supplement 19 * ITU-T Y Supplement 19	2012-06	ITU-T Y.2200-series - Supplement on the risk analysis service in next generation networks	ITU Internationale Fernmeldeunion
ITU-T Y.1418 * ITU-T Y.1418	2008-02	Pseudowire layer network	ITU Internationale Fernmeldeunion
ITU-T Y.2001 * ITU-T Y.2001	2004-12	General overview of NGN	ITU Internationale Fernmeldeunion
ITU-T Y.2006 * ITU-T Y.2006	2008-02	Description of capability set 1 of NGN release 1	ITU Internationale Fernmeldeunion
ITU-T Y.2007 * ITU-T Y.2007	2010-01	NGN capability set 2	ITU Internationale Fernmeldeunion
ITU-T Y.2011 * ITU-T Y.2011	2004-10	General principles and general reference model for Next Generation Networks	ITU Internationale Fernmeldeunion
ITU-T Y.2012 * ITU-T Y.2012	2010-04	Functional requirements and architecture of next generation networks	ITU Internationale Fernmeldeunion
ITU-T Y.2012 Supplement 1 * ITU-T Y. Sup2 * ITU-T Y.2012 Supplement 2 * ITU-T Y.2012 Supplement 1 * ITU-T Y.2012 (2006) Supplement 1	2006-07	ITU-T Y.2012 - Supplement on session/border control (S/BC) functions	ITU Internationale Fernmeldeunion

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ITU-T Y.2023 *ITU-T Y.2023	2012-04	Functional requirements and architecture for the next generation network multimedia communication centre service	ITU Internationale Fernmeldeunion
ITU-T Y.2024 *ITU-T Y.2024	2012-07	Functional requirements and architecture of the web service component in next generation networks	ITU Internationale Fernmeldeunion
ITU-T Y.2025 *ITU-T Y.2025	2012-07	Functional architecture of the next generation network service integration and delivery environment	ITU Internationale Fernmeldeunion
ITU-T Y.2026 *ITU-T Y.2026	2012-07	Functional requirements and architecture of the next generation network for support of ubiquitous sensor network applications and services	ITU Internationale Fernmeldeunion
ITU-T Y.2027 *ITU-T Y.2027	2012-07	Functional architecture of multi-connection	ITU Internationale Fernmeldeunion
ITU-T Y.2051 *ITU-T Y.2051	2008-02	General overview of IPv6-based NGN	ITU Internationale Fernmeldeunion
ITU-T Y.2060 *ITU-T Y.2060	2012-06	Overview of the Internet of things	ITU Internationale Fernmeldeunion
ITU-T Y.2063 *ITU-T Y.2063	2012-07	Framework of the web of things	ITU Internationale Fernmeldeunion
ITU-T Y.2066 *ITU-T Y.2066	2014-06	Common requirements of the Internet of things	ITU Internationale Fernmeldeunion
ITU-T Y.2067 *ITU-T Y.2067	2014-06	Common requirements and capabilities of a gateway for Internet of things applications	ITU Internationale Fernmeldeunion
ITU-T Y.2069 *ITU-T Y.2069	2012-07	Terms and definitions for the Internet of things	ITU Internationale Fernmeldeunion
ITU-T Y.2074 *ITU-T Y.2074	2015-01	Requirements for Internet of things devices and operation of Internet of things applications during disasters	ITU Internationale Fernmeldeunion
ITU-T Y.2122 *ITU-T Y.2122	2009-06	Flow aggregate information exchange functions in NGN	ITU Internationale Fernmeldeunion
ITU-T Y.2122 AMD 1 * ITU-T Y.2122 (2009) AMD 1 * ITU-T Y.2122 (2009) AMD 1	2011-11	Flow aggregate information exchange functions in NGN - Amendment 1: Information model	ITU Internationale Fernmeldeunion
ITU-T Y.2251 *ITU-T Y.2251	2011-03	Multi-connection requirements	ITU Internationale Fernmeldeunion

Dokumentennr.	Ausgabe	Titel	Herausgeber
ITU-T Y.2252 * ITU-T Y.2252	2012-07	Identification and configuration of resources for multi-connection	ITU Internationale Fernmeldeunion
ITU-T Y.2704 * ITU-T Y.2704	2010-01	Security mechanisms and procedures for NGN	ITU Internationale Fernmeldeunion
ITU-T Y.2808 * ITU-T Y.2808	2009-06	Fixed mobile convergence with a common IMS session control domain	ITU Internationale Fernmeldeunion
ITU-T Y.2901 * ITU-T Y.2901	2006-12	The carrier grade open environment reference model	ITU Internationale Fernmeldeunion
ITU-T Y.2902 * ITU-T Y.2902	2008-11	Carrier grade open environment components	ITU Internationale Fernmeldeunion
ITU-T Z.165.1 * ITU-T Z.165.1	2014-11	Testing and Test Control Notation version 3: TTCN-3 language extensions: Extended TRI	ITU Internationale Fernmeldeunion
ITU-T Z.352 * ITU-T Z.352	1993-03	Data oriented human-machine interface specification technique - Scope, approach and reference model	ITU Internationale Fernmeldeunion
ITU-T Z.360 * ITU-T Z.360	1997-05	Graphic GDMO: A graphic notation for the Guidelines for the Definition of Managed Objects	ITU Internationale Fernmeldeunion
ITU-T X.222	1995-04	Use of X.25 LAPB compatible data link procedures to provide the OSI connection-mode data link service	ITU Studienkommission 7 - Datennetze und Kommunikation offener Systeme
ITU-T X.222 AMD 1	1996-10	Use of X.25 LAPB-compatible data link procedures to provide the OSI connection-mode data link service; Amendment 1: Frame relay mapping	ITU Studienkommission 7 - Datennetze und Kommunikation offener Systeme
ITU-T X.800 * CCITT X.800	1991-03	Security architecture for Open Systems Interconnection for CCITT applications	ITU Studienkommission 7 - Datennetze und Kommunikation offener Systeme
ITU-T Z.361	1999-02	Design guidelines for Human-Computer Interfaces (HCI) for the management of telecommunications networks	ITU Studienkommission 10 - Anwendungssprachen für die Telekommunikation