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SERIES Y: GLOBAL INFORMATION INFRASTRUCTURE
AND INTERNET PROTOCOL ASPECTS

Internet protocol aspects – Architecture, access, network
capabilities and resource management

IP access network architecture

ITU-T Recommendation Y.1231

(Formerly CCITT Recommendation)

GLOBAL INFORMATION INFRASTRUCTURE AND INTERNET PROTOCOL ASPECTS

GLOBAL INFORMATION INFRASTRUCTURE

General	Y.100–Y.199
Services, applications and middleware	Y.200–Y.299
Network aspects	Y.300–Y.399
Interfaces and protocols	Y.400–Y.499
Numbering, addressing and naming	Y.500–Y.599
Operation, administration and maintenance	Y.600–Y.699
Security	Y.700–Y.799
Performances	Y.800–Y.899

INTERNET PROTOCOL ASPECTS

General	Y.1000–Y.1099
Services and applications	Y.1100–Y.1199
Architecture, access, network capabilities and resource management	Y.1200–Y.1299
Transport	Y.1300–Y.1399
Interworking	Y.1400–Y.1499
Quality of service and network performance	Y.1500–Y.1599
Signalling	Y.1600–Y.1699
Operation, administration and maintenance	Y.1700–Y.1799
Charging	Y.1800–Y.1899

For further details, please refer to the list of ITU-T Recommendations.

IP access network architecture

Summary

This Recommendation provides the definitions of terminology regarding IP access, and the high-level IP network architecture and models for the IP services. It describes the access types and interfaces to be supported by the IP access network, the IP access network capabilities and requirements, and the IP access network functional models and possible arrangements.

Source

ITU-T Recommendation Y.1231 was prepared by ITU-T Study Group 13 (2001-2004) and approved under the WTSA Resolution 1 procedure on 24 November 2000.

FOREWORD

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In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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CONTENTS

	Page
1 Scope	1
2 References	1
2.1 Normative references.....	1
2.2 Informative references.....	2
3 Definitions and abbreviations.....	2
3.1 Definitions	2
3.2 Abbreviations	2
4 Architectural model of IP access networks	4
4.1 General network architecture of IP network.....	4
4.2 IP access network reference model	5
5 Examples of functional models of IP Access Network.....	6
5.1 Use of PPP	6
5.1.1 PPP tunnelling aggregation	7
5.1.2 PPP terminated aggregation	8
5.2 Use of Ethernet	9
6 Examples of access types and interfaces in IP access network.....	10
7 Examples of functional requirements for IP Access	10
Appendix I – Examples of IP mapping mechanisms.....	10
I.1 IP over PPP over ATM.....	10
I.2 IP over ATM.....	11
I.3 IP over Frame Relay	11
I.4 IP over PPP over PHY	11
I.5 IP over Ethernet.....	12
I.6 IP over PPP over Ethernet	12
Appendix II – An example of functional model of CATV access.....	13

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1 Scope

This Recommendation defines the functional IP Access Network architecture and the functions and requirements above the transport access functions defined in ITU-T Y.1001. The functional requirements for the Access Network Transport are defined for the handling and transport of digital bearer signals defined in ITU-T G.902.

This Recommendation describes:

- the definitions of terminology regarding IP access;
- the high-level IP network architecture and models for the IP services;
- the access types and interfaces to be supported by the IP access network;
- the IP access network capabilities and requirements; and
- the IP access network functional models and possible arrangements.

The functional view of IP access network is independent of the access network transport functions described in ITU-T Y.1001.

2 References

The following ITU-T Recommendations and other references contain provisions which, through references in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; all users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published.

NOTE – A reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

2.1 Normative references

- [1] ITU-T Q.922 (1992), *ISDN data link layer specification for frame mode bearer services*.
- [2] ITU-T I.363.5 (1996), *B-ISDN ATM Adaptation Layer specification: Type 5 AAL*.
- [3] ITU-T I.414 (1997), *Overview of Recommendations on Layer 1 for ISDN and B-ISDN customer accesses*.
- [4] ITU-T G.902 (1995), *Framework Recommendation on functional Access Networks (AN) – Architecture and functions, access types, management and service node aspects*.
- [5] ITU-T Y.1001 (2000), *IP framework – A framework of convergence of telecommunications network and IP network technologies*.
- [6] ITU-T Y.1401 (2000), *General requirements for interworking with Internet Protocol (IP)-based networks*.
- [7] ISO/IEC 8802-2:1998, *Information technology – Telecommunications and information exchange between systems – Local and metropolitan area networks – Specific requirements – Part 2: Logical link control*.