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**Information technology —
Telecommunications and information
exchange between systems — Managed
P2P: Framework**

*Technologies de l'information — Télécommunications et échange
d'informations entre systèmes — Réseaux pair-à-pair géré: Cadre
général*

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Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols (and abbreviated terms).....	2
5 Concept of Peer-to-Peer networking	3
5.1 Characteristics of P2P network	3
5.2 Classification of P2P network	4
6 Problem statement	5
6.1 Problems in the network-side	6
6.2 Problems in the service-side.....	6
6.3 Problems in the user-side	6
7 Requirements of Managed P2P.....	7
7.1 Traffic Management.....	7
7.2 Cooperation Management	9
7.3 Contents Management.....	10
7.4 Service Management.....	11
7.5 Resource Management	12
7.6 P2P User Management.....	13
7.7 Distribution Management	14
7.8 P2P Network Management.....	15
8 MP2P framework.....	18
8.1 Domains	18
8.2 Entities.....	19
8.3 High-level information flows	21
Annex A (informative) There are various types of P2P-based service and applications. This annex describes some major P2P-based applications and use cases for managed P2P	33
Bibliography.....	42

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

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Introduction

Peer-to-Peer (P2P) is distributed network architecture composed of participants (peer) sharing resources without intervention from the central coordination instances. Due to the advantages of scalability and performance, P2P has emerged as viable service architecture for the large-scale Internet applications such as file distribution, multimedia streaming, etc. By combining the resources of each user devices, P2P network can be automatically self-organized and be adapted to changes in peer populations while providing stable services for content sharing and personal communications. However, the unmanaged characteristics of P2P have caused various technical and social problems such as inefficient use of network, copyright issue, etc.

This technical report suggests approaches to solve such problems by defining manageability and enhanced capability to the P2P through the definition of managed P2P (MP2P). This technical report identifies problems of the P2P, identifies requirements for MP2P, and provides framework for MP2P.

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Information technology — Telecommunications and information exchange between systems — Managed P2P: Framework

1 Scope

This Technical Report:

- classifies problems of P2P networking;
- defines taxonomy and concept of managed P2P;
- specifies requirements to support managed P2P;
- specifies framework for managed P2P;
- specifies information flows to support various features of managed P2P.

This Technical Report does not define new P2P protocol or P2P-based applications. This Technical Report does not define manageability features for interoperation with conventional P2P-based applications. The goal of this Technical Report is to define a framework to provide manageability to the conventional P2P-based application.

2 Normative references

None.