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Foreword

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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.

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