

# ETSI TR 101 569 V1.1.1 (2012-12)



## **Access, Terminals, Transmission and Multiplexing (ATTM); Integrated Broadband Cable and Television Networks; Cable Network Transition to IPv6**

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## Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Access, Terminals, Transmission and Multiplexing (ATTM).

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## Introduction

The present document accommodates an urgent need in the industry to assess the current status of Cable Equipment standards that are implemented and deployed in the components that comprise integrated broadband cable and television networks with regard to their readiness for IPv6. Considering the depletion of IPv4 addresses, transition to IPv6 is required in order to enable continued growth of the customer base connected to Cable Networks and ensure service continuity for existing and new customers. High-quality connectivity to all kinds of IP-based services and networks is essential in today's business and private life.

A plethora of transition technologies have been proposed in IETF, other standardization organizations and by manufacturers of IP technology to allow coexistence of IPv4 and IPv6 hosts, access and core networks as well as services. Each of these technology options is specified, implemented and deployed in various forms and stages. The present document analyses the transition technologies, provides technical summaries and derives recommendations for one or more technologies depending on demographic and Cable Network architecture requirements. The results of the technical analysis can be used for further standardization of Cable Network transition to IPv6.

# 1 Scope

The present document assesses the current status of Cable Equipment standards that are implemented and deployed in the components that comprise integrated broadband cable and television networks and the approaches for their transition to IPv6. Since the time-to-market is a factor considering the depletion of IPv4 addresses, the present document accommodates an urgent need in the industry and provides the fundamental analysis for further standardization work.

The present document assesses the IPv6 transition technologies to support basic customer services, voice and data.

# 2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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## 2.1 Normative references

The following referenced documents are necessary for the application of the present document.

Not applicable.

## 2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] ETSI TR 102 881 (V1.1.1): "Access, Terminals, Transmission and Multiplexing (ATTM); Cable Network Handbook", June 2010.
- [i.2] ETSI TS 103 161 (all parts) (V1.1.1): "Access, Terminals, Transmission and Multiplexing (ATTM); Integrated Broadband Cable and Television Networks; IPCablecom 1.5".
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- [i.6] IEEE 802.11a: "IEEE Standard for Telecommunications and Information Exchange between Systems - LAN/MAN Specific Requirements - Part 11: Wireless Medium Access Control (MAC) and physical layer (PHY) specifications: High Speed Physical Layer in the 5 GHz band", 1999.
- [i.7] IEEE 802.11b: "IEEE Standard for Information Technology - Telecommunications and information exchange between systems - Local and Metropolitan networks - Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Higher Speed Physical Layer (PHY) Extension in the 2.4 GHz band", 1999.