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**Access, Terminals, Transmission and Multiplexing (ATTM);
Integrated Broadband Cable and Television Networks;
IPCablecom 1.5;
Part 19: IPCablecom Audio Server Protocol Specification -
MGCP option**

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Foreword

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

The present document is part 19 of a multi-part IPCablecom 1.5 deliverable covering the Digital Broadband Cable Access to the Public Telecommunications Network; IP Multimedia Time Critical Services, as identified below:

- Part 1: "Overview";
- Part 2: "Architectural framework for the delivery of time critical services over Cable Television Networks using Cable Modems";
- Part 3: "Audio Codec Requirements for the Provision of Bi-Directional Audio Service over Cable Television Networks using Cable Modems";
- Part 4: "Network Call Signalling Protocol";
- Part 5: "Dynamic Quality of Service for the Provision of Real Time Services over Cable Television Networks using Cable Modems";
- Part 6: "Event Message Specification";
- Part 7: "Media Terminal Adapter (MTA) Management Information Base (MIB)";
- Part 8: "Network Call Signalling (NCS) MIB Requirements";
- Part 9: "Security";
- Part 10: "Management Information Base (MIB) Framework";
- Part 11: "Media terminal adapter (MTA) device provisioning";
- Part 12: "Management Event Mechanism";
- Part 13: "Trunking Gateway Control Protocol - MGCP option";
- Part 14: "Embedded MTA Analog Interface and Powering Specification";
- Part 15: "Analog Trunking for PBX Specification";
- Part 16: "Signalling for Call Management Server";
- Part 17: "CMS Subscriber Provisioning Specification";
- Part 18: "Media Terminal Adapter Extension MIB";
- Part 19: "IPcablecom Audio Server Protocol Specification - MGCP option";**
- Part 20: "Management Event MIB Specification";

Part 21: "Signalling Extension MIB Specification".

NOTE 1: Additional parts may be proposed and will be added to the list in future versions.

NOTE 2: The choice of a multi-part format for this deliverable is to facilitate maintenance and future enhancements.

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1 Scope

The present document describes the architecture and protocols that are required for playing announcements in Voice-over-IP (VoIP) IPcablecom networks. Announcements are typically needed for calls that do not complete. Additionally, they may be used to provide enhanced information services to the caller. Different carrier service feature sets require different announcement sets and announcement formats.

Announcements can be as basic as fixed-content announcements (e.g. all circuits busy) or as complex as those provided by intelligent Interactive Voice Response (IVR) systems. The IPcablecom service model requires that all announcements be provisioned and signalled in a standard manner for all supported call features and use case scenarios.

The present document defines a set of signalling protocols that are used to provide announcement services within a cable network. For one of these protocols - the IPcablecom Network Call Signalling (NCS) protocol [i.3] - the present document defines two new event packages:

- a Base Audio Package;
- an Advanced Audio Package.

NOTE: There may be cases where audio server implementations are based on protocols other than that specified in the present document. If other protocols are implemented, those implementations will adhere to IPcablecom-specified architectural and functional requirements, such as security and Quality of Service (QoS), and the required features/capabilities to support interoperability. A variety of such protocols exists, including protocols such as INAP, ITU-T Recommendation H.248 [i.9] and others.

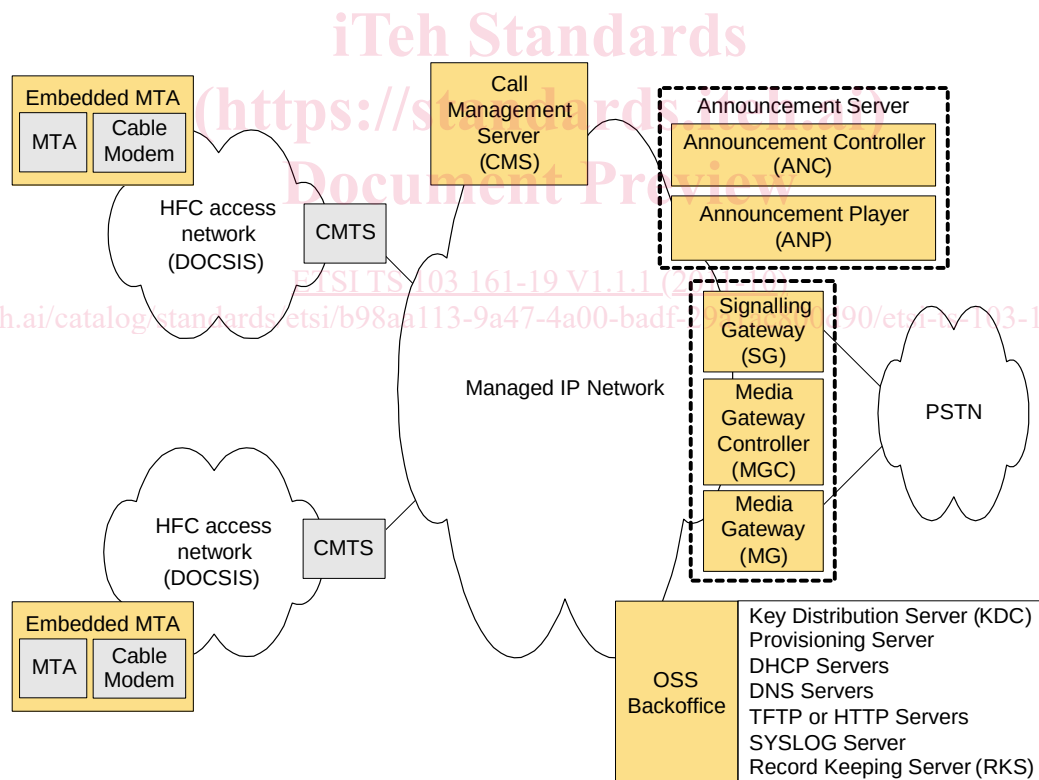


Figure 1: IPcablecom Network Component Reference Model

Announcement Servers, also known as Audio Servers are network components that manage and play informational tones and messages in response to events that occur in the network. Most announcements are media streams that originate from servers in the network. Some simple tones and short announcements can also reside at the MTA and in the MG.