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INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS
AND NEXT-GENERATION NETWORKS

Internet protocol aspects – IPTV over NGN

Terms and definitions for IPTV

Recommendation ITU-T Y.1991



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Recommendation ITU-T Y.1991

Terms and definitions for IPTV

Summary

Recommendation ITU-T Y.1991 contains terms and definitions and a framework relevant to providing a general understanding of IPTV. The primary purpose of this Recommendation is to provide a context for the use of certain terms and definitions to avoid misunderstandings in IPTV and IPTV-related activities.

History

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Recommendation ITU-T Y.1991

Terms and definitions for IPTV

1 Scope

This Recommendation contains terms and definitions and a framework relevant to providing a general understanding of IPTV. This Recommendation is not simply a compendium of terms and definitions. The primary purpose of this Recommendation is to provide a context for the use of certain terms and definitions to avoid misunderstandings in IPTV and IPTV-related activities. Thus, the definitions are arranged in a specific order and certain necessary relationships are illustrated. This Recommendation uses terms and definitions, which are considered particularly suitable and applicable to IPTV work and that have already been defined in published ITU-T Recommendations.

2 References

None.

3 Terms and definitions

Not applicable.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviation:

IPTV Internet Protocol Television

5 Conventions

There are no specific conventions in this Recommendation.

6 IPTV definition

6.1 IPTV [b-ITU-T Y.1901]: Multimedia services such as television/video/audio/text/graphics/data delivered over IP-based networks managed to support the required level of QoS/QoE, security, interactivity and reliability.

7 Terms used in Recommendations related to requirements to support IPTV services

7.1 accessibility feature [b-ITU-T Y.1901]: An additional content component that is intended to assist people hindered in their ability to perceive an aspect of the main content. Examples: captions for the hard of hearing, subtitles in various languages, sign-language interpretation video and descriptive audio.

7.2 acquisition [b-ITU-T Y.1901]: The process of obtaining content by the end-user.

NOTE – For content with accessibility features, this means that the content will be available in a form that can be used by the end-user.

7.3 application provider [b-ITU-T Y-Sup.5]: The entity providing IPTV-related user applications.

7.4 aspect ratio [b-ITU-T Y.1901]: The ratio of the width to the height of a rectangular area, such as the defined display area.

7.5 audio description [b-ITU-T Y.1901]: This service provides a commentary describing the visual events pertinent to the content and augments the dialog in the content.

NOTE – Audio description is primarily intended to assist users who are unable to see the video content clearly. The narrative passages fit between the dialogue and other significant audio content so as not to interfere with it. Ideally, the user can control the volume and spatial positioning of the audio or derive it from a separate output.

7.6 broadcast [b-ITU-T M.60]: One-way transmission from one point to two or more other points.

7.7 captions [b-ITU-T Y.1901]: Captions provide a real-time on-screen transcript of the dialogue as well as any sound effects.

NOTE – This service can be provided by means of either textual or graphical supplementary content. The captions and the dialogue are usually in the same language. The service is primarily to assist users having difficulty hearing the sound. Ideally, users may have some control over the position and size of the presentation. Different speakers are distinguished, usually by different colours.

7.8 channel [b-ITU-T Y.1901]: Content formatted as a selectable set of data and transported as part of a data stream.

7.9 channel changing [b-ITU-T Y.1901]: The act of changing from one channel to another.

7.10 client personal video recorder (cPVR) [b-ITU-T Y.1901]: Same as PVR except that the recording device is located at the end-user's premises.

7.11 content aggregator [b-ITU-T Y-Sup.5]: A player in the IPTV service delivery chain whose role is to aggregate content, e.g., forming a TV bouquet composed of several TV channels.

7.12 content segment [b-ITU-T Y.1901]: A continuous portion of a piece of content, for example, a single topic in a news programme.

7.13 delivery network gateway (DNG) [b-ITU-T Y.1901]: A device implementing the DNGF.

NOTE – DNG also is commonly referred to as the residential gateway (RG).

7.14 delivery network gateway functions (DNGF) [b-ITU-T Y.1901]: Set of functions that mediate between the network and service provider domains and the IPTV terminal function (ITF).

NOTE – A device implementing the DNGF is commonly referred to as the residential gateway (RG) or delivery network gateway (DNG).

7.15 end system [b-ITU-T Y.1901]: A single or set of consumer devices that support IPTV services (e.g., delivery network gateway, display).

7.16 IPTV terminal device [b-ITU-T Y.1901]: A terminal device which has ITF functionality, e.g., a STB.

7.17 IPTV terminal function (ITF) [b-ITU-T Y.1901]: The end-user function(s) associated with: a) receiving and responding to network control channel messages regarding session set-up, maintenance, and tear-down; and b) receiving the content of an IP transport from the network and rendering.

7.18 linear TV [b-ITU-T Y.1901]: A television service in which a continuous stream flows in real time from the service provider to the terminal device and where the user cannot control the temporal order in which contents are viewed.

7.19 metadata [b-ITU-T Y.1901]: Structured, encoded data that describe characteristics of information-bearing entities to aid in the identification, discovery, assessment, and management of the described entities.

NOTE – EPG metadata has many applications and may vary in depth from merely identifying the content package title or information to populate an EPG to providing a complete index of different scenes in a movie or providing business rules detailing how the content package may be displayed, copied, or sold.

7.20 middleware [b-ITU-T Y.1901]: A layer of software between applications and resources, which consists of a set of service enablers that allow multiple functionalities running on one or more devices in an IPTV system to interact across a network.

7.21 mobility [b-ITU-T Q.1706]: The ability for the user or other mobile entities to communicate and access services irrespective of changes of the location or technical environment.

7.22 multi-channel audio [b-ITU-T Y.1901]: Audio signal with more than two channels.

7.23 network personal video recorder (nPVR) [b-ITU-T Y.1901]: Same as PVR except that the recording device is located at the service provider premises.

7.24 package [b-ITU-T Y.1901]: A collection of content components that in some combination (either all or a subset) together provide an end-user experience and are intended to be used together.

NOTE – A package can be instantiated with or without audiovisual content depending on scenarios, in which audiovisual content and package can be tightly associated or can be loosely coupled enough to be handled (generation, delivery, consumption) independently.

7.25 pay per view (PPV) [b-ITU-T Y.1901]: A TV service where a particular program event (e.g., a hockey match) can be bought separately from any package or subscription. The transmission of the program event is made at the same time to everyone who has ordered it.

7.26 personal video recorder (PVR) [b-ITU-T Y.1901]: An end-user controlled device that records, stores and plays back multimedia content. PVR is also known as personal digital recorder (PDR).

7.27 picture-in-picture [b-ITU-T Y.1901]: One program is displayed on the full-seized IPTV TD screen, one or more other programs are simultaneously displayed in inset windows.

7.28 place shifting [b-ITU-T Y.1901]: A function which allows subscribers to see the content without place limitations.

7.29 push VoD [b-ITU-T Y.1901]: A TV service where multimedia content is packaged and delivered at the discretion of the service provider to the end-user's storage system.

7.30 random access point [b-ITU-T Y.1901]: A point in the content from which playback can begin.

NOTE – For example, in MPEG encoding, this would be an I-frame, as opposed to a P-frame or B-frame.

7.31 re-transmission broadcast service [b-ITU-T Y.1901]: A service in which content is provided from various broadcasting environments including, but not limited to, terrestrial, satellite and cable, and re-transmitted into IP network simultaneously or otherwise.

7.32 service [b-ITU-T Y.1901]: A set of functionalities enabled by a provider for end-users.

NOTE – Example provisioned functionalities include IP connectivity with managed quality of service, video-on-demand.

7.33 service provider [b-ITU-T M.1400]: A general reference to an operator that provides telecommunication services to customers and other users either on a tariff or contract basis. A service provider may or may not operate a network. A service provider may or may not be a customer of another service provider.

NOTE – Typically, the service provider acquires or licenses content from content providers and packages this into a service that is consumed by the end-user.

7.34 sign language interpretation [b-ITU-T Y.1901]: A video service showing an interpreter who uses hand gestures and facial expression to convey the main audio content and dialogue to sign language and lip readers.