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**SERIES F: NON-TELEPHONE TELECOMMUNICATION
SERVICES**

Audiovisual services

Requirements and service description for visual surveillance

Recommendation ITU-T F.743

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Recommendation ITU-T F.743

Requirements and service description for visual surveillance

Summary

The purpose of Recommendation ITU-T F.743 is to define a visual surveillance service based on IP networks. The visual surveillance service provides the display and storage of the video captured by multiple remote cameras over an IP network for multiple users. It also provides other functionalities such as remote control and alarming. This Recommendation provides the service description, a brief functional model, application scenarios and requirements for the visual surveillance service. The requirements for the visual surveillance service are derived from the scenarios of different applications that a visual surveillance service can support. Therefore, the service requirements meet the needs of different kinds of users and enables interoperability among visual surveillance systems of different telecom operators and units of different vendors.

History

Edition	Recommendation	Approval	Study Group
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Alarming, camera, IP, remote control, visual surveillance.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Recommendation ITU-T F.743

Requirements and service description for visual surveillance

1 Scope

This Recommendation describes the visual surveillance system framework, service scenarios and specific service requirements which pertain to visual surveillance. It fits within the framework of multimedia services defined by [ITU-T F.700], [ITU-T F.701] and [ITU-T F.702].

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T F.700] Recommendation ITU-T F.700 (2000), *Framework Recommendation for multimedia services*.

[ITU-T F.701] Recommendation ITU-T F.701 (2000), *Guideline Recommendation for identifying multimedia service requirements*.

[ITU-T F.702] Recommendation ITU-T F.702 (1996), *Multimedia conference services*.

3 Definitions

3.1 Terms defined elsewhere

None.

3.2 Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1 closed user group: An aggregation of some users within which each user can do some special operations with others, such as sharing resources.

3.2.2 customer unit: A device located at the customer part of a visual surveillance system and used to present multimedia information (such as audio, video, image, alarm signals, etc.) to the end user.

3.2.3 premises unit: A device located at the remote part of a visual surveillance system and used to capture multimedia information (such as audio, video, image, alarm signal, etc.) from a surveilled object.

3.2.4 surveilled object: The target (such as site, human, and related environment) which is surveilled.

3.2.5 unique media ID: An identifier that identifies or names a media resource in a visual surveillance system.

3.2.6 visual surveillance: A telecommunication service focusing on video (but including audio) application technology, which is used to remotely capture multimedia (such as audio, video, image,

alarm signals, etc.) and present them to the end user in a friendly manner, based on a managed broadband network with quality, security and reliability ensured.

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

CU	Customer Unit
DRM	Digital Rights Management
EPG	Electronic Programme Guide
GIS	Geographic Information System
GPS	Global Positioning System
IM	Instant Messaging
PC	Personal Computer
PSTN	Public Switched Telephone Network
PTZ	Pan/Tilt/Zoom
PU	Premises Unit
QoE	Quality of Experience
QoS	Quality of Service
SMS	Short Message Service
VoD	Video on Demand
VS	Visual Surveillance

5 Conventions

In this Recommendation:

- The keywords "**is required to**" indicate a requirement which must be strictly followed and from which no deviation is permitted if conformance to this Recommendation is to be claimed.
- The keywords "**is recommended**" indicate a requirement which is recommended but which is not absolutely required. Thus this requirement need not be present to claim conformance.
- The keywords "**can optionally**" indicate an optional requirement which is permissible, without implying any sense of being recommended. This term is not intended to imply that the vendor's implementation must provide the option and the feature can be optionally enabled by the network operator/service provider. Rather, it means the vendor may optionally provide the feature and still claim conformance to this Recommendation.

6 Prose description

Visual surveillance can provide real-time surveilled video from one or more cameras possibly located in large, complex and spatially distributed regions; hence, users can monitor and analyze remote sites. Further, the surveilled video can be recorded for replaying.

Visual surveillance systems connect users and premises units with cameras and other assistant functions by various access networks. Surveilled media flow can be delivered to any specified user terminal. Users can get surveilled video in any place whenever accessible.