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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Broadband, triple-play and advanced multimedia services – Ubiquitous sensor network applications and Internet of Things

Multimedia information access triggered by tag-based identification – Registration procedures for identifiers

Recommendation ITU-T H.642.2

ITU-T H-SERIES RECOMMENDATIONS

AUDIOVISUAL AND MULTIMEDIA SYSTEMS

For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T H.642.2

Multimedia information access triggered by tag-based identification – Registration procedures for identifiers

Summary

Recommendation ITU-T H.642.2 describes registration procedures for the identifier scheme defined in Recommendation ITU-T H.642.1. It also designates the Registration Authority (RA) in charge of implementing these procedures.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T H.642.2	2012-06-29	16

Keywords

Identification scheme, identifier, registration authority.

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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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

Table of Contents

Recommendation ITU-T H.642.2

Multimedia information access triggered by tag-based identification – Registration procedures for identifiers

1   Scope

This Recommendation defines registration procedures of the identification scheme defined by [ITU-T H.642.1] for the first level code (1LC) value of 0001_2. The identification scheme consists of a first level code (1LC), a second level code (2LC), class and elements such as a third level code (3LC), and a fourth level code (4LC). A 2LC is pre-assigned to ITU Member States, and then a 3LC is allocated by the registrant of the 2LC, which is called the second level registration authority (RA). The mechanism is meant for the distributed RA hierarchy.

Therefore, this Recommendation specifies as follows:

–   registration procedures for the 2LC and 3LC;

–   responsibilities of the second level RA; and

–   procedures for the operation of the second level RA.

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.771]   Recommendation ITU-T F.771 (2008), *Service description and requirements for multimedia information access triggered by tag-based identification*.

[ITU-T H.621]   Recommendation ITU-T H.621 (2008), *Architecture of a system for multimedia information access triggered by tag-based identification*.

[ITU-T H.642.1]   Recommendation ITU-T H.642.1 (2012), *Multimedia information access triggered by tag-based identification – Identification scheme*.

[ITU-T H.642.3]   Recommendation ITU-T H.642.3 | ISO/IEC 29177 (2012), *Information technology – Automatic identification and data capture technique – Identifier resolution protocol for multimedia information access triggered by tag-based identification*.

[ISO 3166-1]   ISO 3166-1:2006 *Codes for the representation of names of countries and their subdivisions – Part 1: Country codes*, plus its Cor.1 (2007).

3   Definitions

3.1   Terms defined elsewhere

This Recommendation uses the following terms defined elsewhere:

3.1.1   class [ITU-T H.642.1]: Part of an identifier that defines the layout and interpretation of the following bit string inside the identifier, especially the length of the third level code (3LC) and fourth level code (4LC).

3.1.2   country name [ISO 3166-1]: Name of a country, dependency, or other area of particular geopolitical interest.

3.1.3   first level code (1LC) [ITU-T H.642.1]: Part of the identifier that represents the identifier sub-blocks.

3.1.4   fourth level code (4LC) [ITU-T H.642.1]: Part of the identifier that serializes individual multimedia information and services.

3.1.5   ITU-T H.642 identification scheme [ITU-T H.642.1]: Name given to the identification scheme defined in [ITU-T H.642.1].

3.1.6   second level code (2LC) [ITU-T H.642.1]: Part of the identifier assigned to ITU Member States.

3.1.7   third level code (3LC) [ITU-T H.642.1]: Part of the identifier assigned to a registration authority (RA) that handles the allocation of the subspace to other organizations.

3.2   Terms defined in this Recommendation

This Recommendation defines the following terms:

3.2.1   numeric-3 code element: The numeric code found in column 6 of the table in clause 9 of [ISO 3166-1].

3.2.2   second level RA: The organization to which a second level code (2LC) is assigned and that manages the allocation of third level codes (3LCs) under class from 1 to 14.

4   Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

1LC   First Level Code

2LC   Second Level Code

3LC   Third Level Code

4LC   Fourth Level Code

RA   Registration Authority

5   Conventions

None.

6   Registration authority for a second level code

The second level code (2LC) is assigned to ITU Member States and its value is taken from the values assigned to countries in [ISO 3166-1]. Each ITU Member State receives four 2LCs using the formula:

$$C*4, C*4+1, C*4+2, C*4+3,$$

where C is the numeric-3 code (without leading zeroes) element defined in [ISO 3166-1] for the specific country name.

Therefore, a registration authority (RA) is not needed for a 2LC.

6.1   Selection

The selection of the party to run the second level RA at a given 2LC shall be managed by the administration of each Member State, or a delegated organization from the administration.

6.2 Announcement

When an organization is selected to run a second level RA at a pre-assigned 2LC (see clause 6.1), the following information shall be sent to the Director of TSB (Telecommunication Standardization Bureau), so that interoperability between different second level RAs can be maintained:

a)   the assigned 2LC value from the pre-assigned 2LCs;

b)   name of the initial organization to operate the second level RA;

c)   address of the initial organization;

d)   date of the initial assignment;

e)   date of the last transfer of assignment, if allowed (updatable);

f)   name of the current organization (updatable);

g)   address of the current organization (updatable);

h)   the name, title, postal/e-mail address, telephone/facsimile number of a contact person within the organization (updatable);

i)   date of the last update (updatable).

6.3 Change of information

The information provided in clause 6.2 for organization identified by a 2LC may change from time to time. The Director of TSB shall be notified of all such changes in a timely manner (within 30 days of such change).

6.4 Publication

The Director of TSB shall post the information concerning the selection of second level RAs at a pre-assigned 2LC (clause 6.2) on the ITU website and publish regular updates in the Operational Bulletin of the International Telecommunication Union.

7 Second level RA

7.1 Responsibilities

The responsibilities of the second level RA are as follows:

a)   to receive applications for third level code (3LC) (the required content of the application is specified in clause 7.3.1);

b)   to process applications within 30 days of receipt of the application form;

c)   if the application is accepted according to the criteria of clause 7.2, to allocate the 3LC and to send a registration announcement to the applicant;

d)   if the application is not accepted, to send a notice of rejection;

e)   to maintain a publicly available register of allocated 3LCs (see clause 7.3.4);

f)   to provide the necessary resources to operate a resolution server, based on Recommendation ITU-T H.642.3 and future protocols that are derived from it, and new protocols that may emerge.

The permitted fee structure shall be on a cost-recovery basis.

7.2 Criteria for acceptance

7.2.1 Time-scale

The application for 3LC shall identify the time-scale within which the 3LC is to be used for multimedia information access, triggered by tag-based identification. The application shall be rejected if the time-scale exceeds 12 months, and can be voided if it is not in use within that time-scale.

7.2.2 Size

Based on the request and estimated usage of codes, the second level RA can suggest that the applicant apply for a subspace under a particular class.

7.2.3 Nature of service

The service for which the allocation of a 3LC is requested shall be services which require interchange between multiple applications in an open environment in the long run.

7.3 Detailed procedures for the operation of the second level RA

7.3.1 Registration application for a 3LC

The application shall include at least the following information:

a) name of the organization submitting the application;

b) name, postal mail address, and e-mail address; optionally, telephone and fax numbers for the contact point within the requesting organization;

c) full identification of the person submitting the application (including their role in the organization);

d) time-scale for application of the allocated 3LC;

e) estimated usage (number of codes) in code subspace under 3LC.

7.3.2 Registration announcement

The second-level RA shall send a registration announcement to an applicant when the assignment of a 3LC has been agreed. The registration announcement shall include at least the following information:

a) the name of the organization submitting the application;

b) the name, postal/electronic mail address and telephone/facsimile number for the contact point within the requesting organization;

c) the full identification of the person submitting the application (including their role in the organization);

d) the 3LC value and the class value assigned.

7.3.3 Notice for rejection

Any applications for a 3LC shall be rejected by the second level RA when it contains incomplete or incomprehensible information, or if the conditions of criteria of acceptance are not satisfied.

The second level RA shall send a notice of rejection to an applicant when the assignment of a 3LC has been rejected. The notice of rejection shall include at least the following information:

a) the name of the organization submitting the application;

b) the name, postal/electronic mail address and telephone/facsimile number for the contact point within the requesting organization;

c)   full identification of the person submitting the application (including their role in the organization);

d)   the reason for rejection, which *inter alia* may be:

–   the absence of a proper fee;

–   incomplete or incomprehensible information in application;

–   the justification for inclusion in the register (as defined in this standard) is not adequate.

7.3.4   Content of the register

At a minimum, the register shall contain:

a)   the assigned 3LC and the class under which the 3LC is used;

b)   name of the initial applicant;

c)   address of the initial applicant;

d)   date of the original assignment;

e)   date of the last transfer of assignment, if allowed (updatable);

f)   name of the current owner (updatable);

g)   address of the current owner (updatable);

h)   if the owner is an organization, the name, title, postal/e-mail address (with the email address protected against robot harvesting), and telephone/facsimile number of a contact person within the organization (updatable);

i)   date of last update (updatable).

7.3.5   Change of registration information

The registered organization identified by a 3LC shall not significantly change from the original application, but supporting information, such as the information provided in clause 7.3.1, may change from time to time. The second level RA shall be notified of all such changes, and shall update the register, maintaining an audit trail of earlier information.

7.3.6   Appeals process

In response to a notice of rejection of a 3LC application, the applicant can submit to a second level RA a supplement to its original application that responds to the reason(s) for rejection.

7.4   Transfer of register entries held by the second level RA

The register entries held by the second level RA shall be made available to any subsequently appointed second level RA.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	Overall network operation, telephone service, service operation and human factors
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	**Audiovisual and multimedia systems**
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems