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Testing for NGN networks

Testing and model network architecture for tag-based identification systems and functions

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Testing and model network architecture for tag-based identification systems and functions

Summary

There are a variety of applications and services which are utilizing identification of objects and providing identification services to intended users. But every identification application and service cannot be considered as tag-based identification applications and services which incorporate three mandatory functional elements: identifier, identification (ID) tag and ID terminal. Tag-based identification systems and functions are required to be developed to deploy tag-based identification applications and services. Typical tag-based identification systems are ID terminals, identifier resolution systems, object identifier (OID) resolution systems, application-specific OID resolution systems and service broker. The tag-based identification functions running at the tag-based identification systems are incorporating various standards of which implementations are required to be verified for conformance and interoperability. This Recommendation identifies target systems and functions to be tested and specifies a model network of testing for their conformance and interoperability.

Keywords

Identifier; Tag-based identification; RFID; Bar code; ID tag; ID terminal; and Identifier resolution

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Testing and model network architecture for tag-based identification systems and functions

1 Scope

A set of standards and relevant implementations are necessary to enable tag-based identification applications and services over the NGN and other communication networks. The implementations are recommended to be verified according to given standards to evaluate their conformance and interoperability.

This Recommendation specifies a testing and model network architecture that describes target systems, target functions and system configurations in terms of model network, general procedures and testing requirements.

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.

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|----------------|--|
| [ITU-T F.771] | Recommendation ITU-T F.771 (2008), <i>Service description and requirements for multimedia information access triggered by tag-based identification</i> |
| [ITU-T H.621] | Recommendation ITU-T H.621 (2008), <i>Architecture of a system for multimedia information access triggered by tag-based identification</i> |
| [ITU-T X.672] | Recommendation ITU-T X.672 (2010) ISO/IEC 29168-1:2011, <i>Information technology — Open Systems Interconnection — Object Identifier resolution system</i> |
| [ITU-T Y.2016] | Recommendation ITU-T Y.2016 (2009), <i>Functional requirements and architecture of the NGN for applications and services using tag-based identification</i> |
| [ITU-T Y.2213] | Recommendation ITU-T Y.2213 (2008), <i>NGN service requirements and capabilities for network aspects of applications and services using tag-based identification</i> |

3 Definitions

3.1 Terms defined elsewhere

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