TECHNICAL REPORT

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Information technology — Future Network — Problem statement and requirements —

Part 5: Security

Technologies de l'information — Réseaux du futur — Énoncé du problème et exigences —

Partie 5: Sécurité

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, SC 6, *Telecommunications and information exchange between systems*.

ISO/IEC TR 29181 consists of the following parts, under the general title *Future Network — Problem statement and requirements*:

— *Part 1: Overall aspects*

— *Part 2: Naming and addressing*

— *Part 3: Switching and routing*

— *Part 4: Mobility*

— *Part 5: Security*

— *Part 6: Media transport*

— *Part 7: Service composition*

Additional parts, dealing with quality of service and networking of everything are planned.

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Introduction

This part of ISO/IEC TR 29181 (Future Network: Problem Statement and Requirements) describes the problems of the current network and the requirements for Future Network in the security perspective. The general description on the problem statement and requirements for Future Network is given in the ISO/IEC TR 29181-1. In addition, this part of ISO/IEC TR 29181-5 establishes the problem statement and requirements for Future Network in the viewpoint of architecture and functionality for security support.

In general, network security includes information security and the network's own security. Network security is concerned with hardware, software, basic communication protocol, network frame structure, communication mechanism factors of the network, and involving a wide range of many things. This part of ISO/IEC TR 29181 will focus on changing the security mechanism of network security from the perspective of the future.

This part of ISO/IEC TR 29181 can be applicable to the overall design of Future Network architecture.

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Information technology — Future Network — Problem statement and requirements —

Part 5: Security

1 Scope

This part of ISO/IEC TR 29181 describes the problem statements of current network and the requirements for Future Network in the security perspective. This part of ISO/IEC TR 29181 mainly specifies

— problems of the current network in security environment, and

— requirements for security support in Future Network.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
Future Network
FN
network of the future which is made on clean-slate design approach as well as incremental design approach; it should provide futuristic capabilities and services beyond the limitations of the current network including the Internet

[SOURCE: ISO/IEC/TR 29181-1:2012, 3.1]

2.2
Net Space
new dimensional time-space system created by humans with communication, computer and other information technology, which provides new space for human information activities (including information gathering, processing, storing, transmission etc.) and is becoming an ever important part of the survival and development environment for human society

Note 1 to entry: Net Space is derived and expended from network.

Note 2 to entry: It is becoming an ever important part of the survival and development environment for human society.

2.3
FN Space
FN
main space for information activities of human society and finally developed to the virtual world corresponding to and closely interacted with the physical world

Note 1 to entry: FN Space will be the development and improvement of Net Space.

Note 2 to entry:

3 Abbreviations

FN Future Network

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