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SERIES Y: GLOBAL INFORMATION
INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS
AND NEXT-GENERATION NETWORKS, INTERNET OF
THINGS AND SMART CITIES

Internet of things and smart cities and communities –
General

SERIES F: NON-TELEPHONE TELECOMMUNICATION
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Machine socialization: Overview and reference model

Recommendation ITU-T Y.4001/F.748.2



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GLOBAL INFORMATION INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS AND NEXT-GENERATION NETWORKS, INTERNET OF THINGS AND SMART CITIES

GLOBAL INFORMATION INFRASTRUCTURE

General	Y.100–Y.199
Services, applications and middleware	Y.200–Y.299
Network aspects	Y.300–Y.399
Interfaces and protocols	Y.400–Y.499
Numbering, addressing and naming	Y.500–Y.599
Operation, administration and maintenance	Y.600–Y.699
Security	Y.700–Y.799
Performances	Y.800–Y.899

INTERNET PROTOCOL ASPECTS

General	Y.1000–Y.1099
Services and applications	Y.1100–Y.1199
Architecture, access, network capabilities and resource management	Y.1200–Y.1299
Transport	Y.1300–Y.1399
Interworking	Y.1400–Y.1499
Quality of service and network performance	Y.1500–Y.1599
Signalling	Y.1600–Y.1699
Operation, administration and maintenance	Y.1700–Y.1799
Charging	Y.1800–Y.1899
IPTV over NGN	Y.1900–Y.1999

NEXT GENERATION NETWORKS

Frameworks and functional architecture models	Y.2000–Y.2099
Quality of Service and performance	Y.2100–Y.2199
Service aspects: Service capabilities and service architecture	Y.2200–Y.2249
Service aspects: Interoperability of services and networks in NGN	Y.2250–Y.2299
Enhancements to NGN	Y.2300–Y.2399
Network management	Y.2400–Y.2499
Network control architectures and protocols	Y.2500–Y.2599
Packet-based Networks	Y.2600–Y.2699
Security	Y.2700–Y.2799
Generalized mobility	Y.2800–Y.2899
Carrier grade open environment	Y.2900–Y.2999

FUTURE NETWORKS

Y.3000–Y.3499

CLOUD COMPUTING

Y.3500–Y.3999

INTERNET OF THINGS AND SMART CITIES AND COMMUNITIES

General	Y.4000–Y.4049
Definitions and terminologies	Y.4050–Y.4099
Requirements and use cases	Y.4100–Y.4249
Infrastructure, connectivity and networks	Y.4250–Y.4399
Frameworks, architectures and protocols	Y.4400–Y.4549
Services, applications, computation and data processing	Y.4550–Y.4699
Management, control and performance	Y.4700–Y.4799
Identification and security	Y.4800–Y.4899

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

Recommendation ITU-T Y.4001/F.748.2

Machine socialization: Overview and reference model

Summary

Recommendation ITU-T Y.4001/F.748.2 describes machine socialization, which enables machines to cooperate with one another via their relations with other machines. In machine socialization, machines can be identified, can communicate and can capture data using machine identifiers, features of machine capabilities and machine owners, etc. Machines can be socialized with the information of identified machines through the establishment of relations. This Recommendation provides an overview, requirements and a reference model for machine socialization.

History

Edition	Recommendation	Approval	Study Group	Unique ID*
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Internet of things (IoT), machine socialization, social Internet of things, socialization, social web of things.

* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

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Table of Contents

	Page
1 Scope.....	1
2 References.....	1
3 Definitions	1
3.1 Terms defined elsewhere	1
3.2 Terms defined in this Recommendation.....	1
4 Abbreviations and acronyms	2
5 Conventions	2
6 Overview of machine socialization	2
6.1 General overview of machine socialization	2
6.2 Relations for socialization	3
6.3 Socialization under the same ownership of machines	5
6.4 Socialization under different ownerships of machines.....	5
6.5 General procedures of machine socialization.....	5
7 Requirements for machine socialization.....	6
7.1 Standardized description of a machine.....	6
7.2 Service discovery.....	6
7.3 Standardized expression of relation.....	6
7.4 Dynamic update of relation	7
7.5 Multiple ways of establishing a relation.....	7
7.6 Caching of relation information	7
7.7 Fault recovery for a relation	7
7.8 Resilience of relation.....	7
7.9 Negotiation of QoS.....	7
7.10 Verification of ownership of a machine	7
8 Reference models of machine socialization	7
8.1 Service model of machine socialization	7
8.2 Functional model of machine socialization.....	8

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Introduction

Social relations existed between people before the appearance of social network services as known today. However, these social relations were constrained by time, location, space, etc.

A social networking service is a platform that enables the building of social networks or social relations among people who share interests, activities, backgrounds or real-life connections. Unlike traditional social networks or social relations, social network services make it possible to connect people who share interests and activities across political, economic, and geographic borders, etc. In addition, social network services make it easy to create, maintain, strengthen and extend social networks or social relations.

The most important factor in the use of social network services is the possibility of being able to cooperate with other people including crowd activities by sharing and exchanging information.

According to the definition of the Internet of things (IoT), things or machines collect data (either environmental or non-environmental) and transfer this data to the information world through communication networks. Though things or machines are interconnected with one another, the important point of the IoT is in providing the capability for communication and data (either environmental or non-environmental) capture to things or machines. Without collaboration or cooperation between things or machines, they may remain isolated and constrained from a capability point of view.

Because humans have an always-on networking capability, a social network service becomes a great way to share and exchange information. Using this capability, it is easy for humans to acquire information on the experience, knowledge and capability of other humans without the barriers associated with time, space, etc.

Consequently, it can be easily understood that all networked things or machines will:

- produce numerous items of meaningful information or more specifically, captured data, occasionally pre-processed by things or machines;
- evolve intellectually and then converse with one another, in other words, they will be socialized.

To enable things to communicate what they do or need, follow one another, discuss with one another, collaborate, create events and do things together demands the socialization of machines to a level corresponding to that of social relations among humans.