

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# X.1314

**Corrigendum 1**  
(10/2015)

SERIES X: DATA NETWORKS, OPEN SYSTEM  
COMMUNICATIONS AND SECURITY

Secure applications and services – Ubiquitous sensor  
network security

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Security requirements and framework of ubiquitous  
networking

**Corrigendum 1**

Recommendation ITU-T X.1314 (2014) –  
Corrigendum 1

ITU-T X-SERIES RECOMMENDATIONS  
DATA NETWORKS, OPEN SYSTEM COMMUNICATIONS AND SECURITY

PUBLIC DATA NETWORKS	X.1–X.199
OPEN SYSTEMS INTERCONNECTION	X.200–X.299
INTERWORKING BETWEEN NETWORKS	X.300–X.399
MESSAGE HANDLING SYSTEMS	X.400–X.499
DIRECTORY	X.500–X.599
OSI NETWORKING AND SYSTEM ASPECTS	X.600–X.699
OSI MANAGEMENT	X.700–X.799
SECURITY	X.800–X.849
OSI APPLICATIONS	X.850–X.899
OPEN DISTRIBUTED PROCESSING	X.900–X.999
INFORMATION AND NETWORK SECURITY	
General security aspects	X.1000–X.1029
Network security	X.1030–X.1049
Security management	X.1050–X.1069
Telebiometrics	X.1080–X.1099
SECURE APPLICATIONS AND SERVICES	
Multicast security	X.1100–X.1109
Home network security	X.1110–X.1119
Mobile security	X.1120–X.1139
Web security	X.1140–X.1149
Security protocols	X.1150–X.1159
Peer-to-peer security	X.1160–X.1169
Networked ID security	X.1170–X.1179
IPTV security	X.1180–X.1199
CYBERSPACE SECURITY	
Cybersecurity	X.1200–X.1229
Countering spam	X.1230–X.1249
Identity management	X.1250–X.1279
SECURE APPLICATIONS AND SERVICES	
Emergency communications	X.1300–X.1309
<b>Ubiquitous sensor network security</b>	<b>X.1310–X.1339</b>
PKI related Recommendations	X.1340–X.1349
CYBERSECURITY INFORMATION EXCHANGE	
Overview of cybersecurity	X.1500–X.1519
Vulnerability/state exchange	X.1520–X.1539
Event/incident/heuristics exchange	X.1540–X.1549
Exchange of policies	X.1550–X.1559
Heuristics and information request	X.1560–X.1569
Identification and discovery	X.1570–X.1579
Assured exchange	X.1580–X.1589
CLOUD COMPUTING SECURITY	
Overview of cloud computing security	X.1600–X.1601
Cloud computing security design	X.1602–X.1639
Cloud computing security best practices and guidelines	X.1640–X.1659
Cloud computing security implementation	X.1660–X.1679
Other cloud computing security	X.1680–X.1699

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

# Recommendation ITU-T X.1314

## Security requirements and framework of ubiquitous networking

### Corrigendum 1

#### Summary

Corrigendum 1 to Recommendation ITU-T X.1314 corrects errors in clause 7.1.2.6.

#### History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T X.1314	2014-11-13	17	<a href="http://handle.itu.int/11.1002/1000/12345">11.1002/1000/12345</a>
1.1	ITU-T X.1314 (2014) Cor. 1	2015-10-29	17	<a href="http://handle.itu.int/11.1002/1000/12597">11.1002/1000/12597</a>

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\* 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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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.

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## **Security requirements and framework of ubiquitous networking**

### **Corrigendum 1**

#### **7.1.2.6 Group authentication requirement**

*Modify the clause to read:*

The number of UN terminals can be huge, and based on the classification of all kinds of applications and services, there can be many UN terminal groups. UN needs to implement a unified management, and a unified resource allocation to these terminal groups. Therefore, it is necessary for UN to implement group authentication for these terminal groups.

Group authentication of objects shall be supported. For group authentication, a group of objects may have a common UN group identity (ID) for authentication and authorization. The ubiquitous network or the UN application domain may authenticate and authorize the whole group of objects with this group ID, or may authenticate and authorize them individually.

The authentication of group objects may be performed by an authentication agent or gateway, or by a master object within the group.

An authentication gateway may act as a broker to assist objects and the ubiquitous network perform mutual authentication. The procedure of group authentication with gateway could be: Firstly, the gateway and the ubiquitous network shall perform mutual authentication, and calculate their key materials respectively. Secondly, the gateway shall mutually authenticate with each object and, if successful, it shall send the above calculated key materials to the objects. In the meantime, the gateway shall inform the ubiquitous network of the authenticated objects. Thirdly, each object shall generate authenticated encryption traffic key based on the hash of its root key and the received key material from the gateway, meanwhile the ubiquitous network shall also generate the authenticated encryption traffic keys based on the hash of key materials and the root keys of the authenticated objects. In this way, the communication security between the UN object group and the ubiquitous network is guaranteed.





## 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	Environment and ICTs, climate change, e-waste, energy efficiency; 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
<b>Series X</b>	<b>Data networks, open system communications and security</b>
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems