
**Information technology —
Telecommunications and information
exchange between systems — Corporate
telecommunication networks — Mobility
for enterprise communications**

*Technologies de l'information — Téléinformatique — Réseaux de
télécommunication d'entreprise — Mobilité pour les communications
d'entreprise*



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction.....	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviations.....	5
5 Background.....	7
6 Mobility types and terms	9
6.1 Mobility types.....	9
6.1.1 Terminal mobility.....	9
6.1.2 User mobility.....	10
6.1.3 Session mobility	10
6.1.4 Service mobility	10
6.2 Mobility across different network infrastructures	10
6.2.1 Mobility across access network technologies	10
6.2.2 Mobility across administrative network domains	11
6.3 Mobility modes	11
6.3.1 Nomadic mode.....	11
6.3.2 Portable mode.....	11
6.3.3 Mobile mode.....	11
7 Basic functionalities to enable mobility.....	12
7.1 Mobility management.....	13
7.1.1 Handover of media connections and sessions.....	13
7.1.2 Mobility management support for IP-networks.....	15
7.2 Identity and access management	16
7.2.1 User and terminal identification.....	16
7.2.2 Authentication	17
7.2.3 Access management.....	18
7.3 Device/ configuration management and policy enforcement.....	18
7.4 Location management	19
7.5 Reachability management	19
7.6 Virtual Desktop Infrastructure.....	19
8 Requirements and standardization gaps	20
8.1 Nomadic deployments	22
8.1.1 Scenario: Hot-desking within the enterprise network (NGCN).....	23
8.1.2 Scenario: Remote access from a public network	23
8.2 Portable deployments.....	24
8.2.1 Scenario: Changing location of a terminal while keeping communication sessions alive	24
8.2.2 Scenario: Changing terminal while keeping communication sessions alive	25
8.3 Mobile deployments	25
8.3.1 Scenario: Continuous connection across different public networks with the same access technology	25
8.3.2 Scenario: Continuous connection across an enterprise and a public mobile network with different access technologies.....	27
9 Summary of standardization gaps.....	27
9.1 General issues	28
9.2 Mobility management.....	28

[This is a preview - click here to buy the full publication](#)

9.3	Identity and access management	28
9.4	Device/configuration management.....	28
9.5	Reachability management and location management.....	28
	Bibliography	29

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

In exceptional circumstances, when the joint technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide to publish a Technical Report. A Technical Report is entirely informative in nature and shall be subject to review every five years in the same manner as an International Standard.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC TR 26927 was prepared by Ecma International (as ECMA TR/92) and was adopted, under a special "fast-track procedure", by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

This second edition cancels and replaces the first edition (ISO/IEC TR 26927:2006), which has been technically revised, taking into account more recent information and identifying requirements and standardization gaps.

Introduction

This Technical Report identifies key mobility issues for IP-based enterprise communications. It defines terms for different types of mobility, describes basic functionality in support of mobility, and lists common deployment scenarios. For each scenario, it identifies functional requirements and standardization gaps related to the management of mobility, identity, terminals and reachability.

This Technical Report is based upon the practical experience of Ecma member companies and the results of their active and continuous participation in the work of ISO/IEC JTC1, ITU-T, ETSI, IETF and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

Information technology — Telecommunications and information exchange between systems — Corporate telecommunication networks — Mobility for enterprise communications

1 Scope

Mobility for enterprise communications is the ability for persons and objects (e.g. vehicles, sensors and other machines) belonging to the enterprise to use communication and information services regardless of changes in their physical location. This includes also the ability to be reached by other persons or objects for communications.

This Technical Report encompasses the mobility of enterprise users connecting to enterprise and public IP networks using wired and wireless terminals for voice, data and converged services. It defines terms for different types of mobility, describes basic functionality in support of mobility, and lists common deployment scenarios. For each scenario, it identifies functional requirements and standardization gaps with the main focus on the management of mobility, identity, terminals and reachability. However, it does not provide technical solutions but lays the foundations for triggering standardization projects in areas where gaps have been identified.

More general aspects of enterprise communications based on Next Generation Corporate Networks (NGCN) and interconnection with Next Generation Networks (NGN) are covered by the companion series of Technical Reports on NGCN [1], [2], [3] and [4].

2 Normative references

No normative references are cited.