# ISO/IEC 23916:2005-11 (E)

## Information technology - Telecommunications and information exchange between syste ms - Corporate Telecommunication Networks - Signalling Interworking between QSIG and SIP - Call Transfer

## Contents

Page


Foreword ..... v

Introduction ..... vi

1 Scope ..... 1

2 Normative references ..... 1

3 Terminology ..... 2

4 Definitions ..... 3
4.1 External definitions ..... 3
4.2 Other definitions ..... 3
4.2.1 User A ..... 3
4.2.2 User B ..... 3
4.2.3 User C ..... 3
4.2.4 Call transfer ..... 3
4.2.5 Single step call transfer ..... 4
4.2.6 Call transfer by join ..... 4
4.2.7 Call transfer by rerouteing ..... 4
4.2.8 Corporate telecommunication Network (CN) ..... 4
4.2.9 IP network ..... 4
4.2.10 Private Integrated Services Network (PISN) ..... 4
4.2.11 Private Integrated services Network eXchange (PINX) ..... 4

5 Abbreviations and acronyms ..... 4

6 Background and architecture ..... 5

7 Procedures ..... 5
7.1 Call transfers in QSIG ..... 5
7.2 Call transfer in SIP ..... 6
7.3 Scope of the interworking functions ..... 6
7.3.1 QSIG side ..... 6
7.3.2 SIP side ..... 6
7.3.3 Discussion over transfer interworking functions ..... 6
7.4 Mapping of numbers and URIs ..... 9
7.5 UAC Processing ..... 10
7.5.1 Receipt of a FACILITY message with callTransferComplete invoke APDU ..... 10
7.5.2 Receipt of a FACILITY message with callTransferUpdate invoke APDU ..... 10
7.5.3 Receipt of a FACILITY message with ssctInitiate invoke APDU ..... 10
7.5.4 Receipt of a SETUP message with ssctSetup invoke APDU ..... 11
7.5.5 Receipt of a FACILITY message with subaddressTransfer invoke APDU ..... 12
7.6 UAS Processing ..... 12
7.6.1 Receipt of a SIP REFER request ..... 12
7.6.2 Receipt of a SIP INVITE request ..... 17
7.6.3 Receipt of a SIP request with revised identity ..... 18

8 Example message sequences ..... 19

8.1 Call transfer by join where User B and C are SIP participants ..... 19
8.2 Call transfer where User A is a SIP participant ..... 20
8.3 Call transfer where User A is a SIP participant and where two gateways are used ..... 21
8.4 Call transfer where User A and User B are SIP participants ..... 22
8.5 Single step call transfer where User B is a SIP participant ..... 23
8.6 Unsuccessful Single step call transfer where User A and User C are SIP participants ..... 24
8.7 Single step call transfer where User A and User B are SIP participants ..... 25

9 Security considerations ..... 25