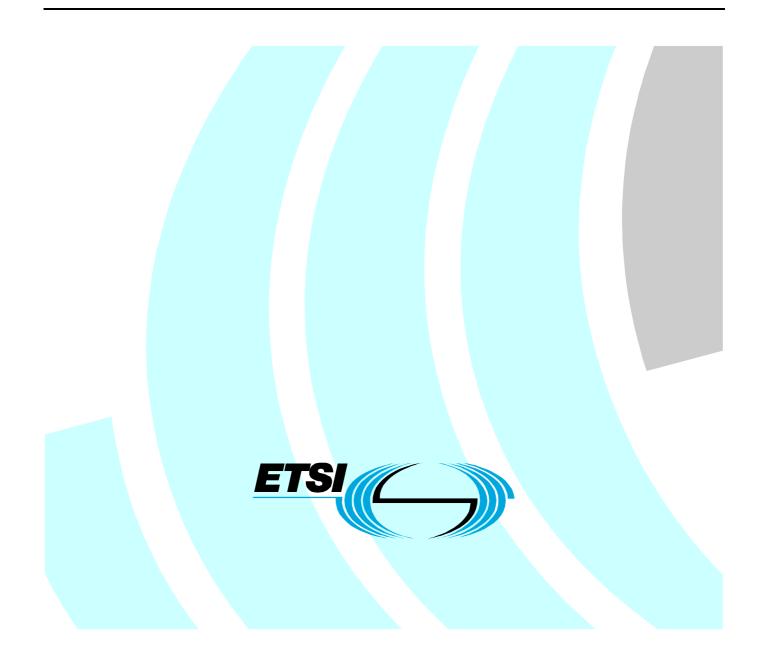# ETSI TR 102 334 V1.1.1 (2004-05)

Technical Report

Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); vCard and vCalendar on fixed network for PSTN/ISDN

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

1 Scope

The present document provides some recommendations for implementation of vCard and vCalendar in fixed networks.

2 References

For the purposes of this Technical Report the following references apply:

[1] "vCard - The Electronic Business Card" The Internet Mail Consortium (IMC) version 2.1 - September 18th, 1996 (URL:http://www.imc.org/pdi/vcard-21.doc).

[2] IETF RFC 2425 (Version 3): "MIME Content-Type for Directory Information".

[3] IETF RFC 2426 (Version 3): "vCard MIME Directory Profile".

[4] IETF RFC 2445: "Internet Calendaring and Scheduling Core Object Specification (iCalendar)".

[5] IETF RFC 2446: "iCalendar Transport-Independent Interoperability Protocol (iTIP) Scheduling Events, BusyTime, To-dos and Journal Entries".

[6] IETF RFC 2447: "iCalendar Message-Based Interoperability Protocol (iMIP)".

[7] ETSI TS 123 040: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); Technical realization of Short Message Service (SMS) (3GPP TS 23.040)".

[8] ETSI ES 201 986 (V1.1.2): "Services and Protocols for Advanced Networks (SPAN); Short Message Service (SMS) for PSTN/ISDN; Service description".

[9] ETSI ES 201 912: "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN; Short Message Communication between a fixed network Short Message Terminal Equipment and a Short Message Service Centre".

NOTE: vCard and vCalendar are trademarks of the Internet Mail Consortium. vCard and vCalendar documents are available on http://www.imc.org/pdi/.

[10] ISO 8601: "Data elements and interchange formats - Information interchange - Representation of dates and times".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

vCard: electronic business card

vCalendar: cross-platform scheduling

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

EMS   Enhanced Messaging Service
IMC   Internet Mail Consortium (http://www.imc.org/)
ISDN   Integrated Services Digital Network

PSTN	Public Switched Telephone Network
SMS	Short Message Service

4 vCard

4.1 Description

vCard should be used by PSTN/ISDN terminals to exchange personal information (as contact card). This exchange can be made between two terminals or between a terminal and a server.

vCard uses EMS as transport mechanism according to ES 201 912) [9] (SMS for PSTN/ISDN and TS 123 040 [7] (3GPP; Technical realization of SMS; Release 5).

A contact exchange may need a concatenated EMS, i.e. more than one SMS segment is transmitted. If a terminal supporting vCard exchange is not supporting concatenation, it should be able to receive and read at least the vCard information contained in the first segment.

Terminals supporting vCard exchange shall be compliant to vCard version 2.1 as defined in document [1]:

- Emitting an EMS containing a vCard object, PSTN/ISDN terminals or servers supporting vCard exchange shall use vCard version 2.1, with the following supplementary recommendations:

  - The mandatory properties which are defining a contact in a vCard exchange are Version **VERSION** and Name **N**.

  - The Telephone Number **TEL** property is strictly recommended to be used, since it is seen as an essential property for vCard exchange.

  - As addressed terminals may not support concatenation, it is recommended to put essential information of a contact in the first segment. Therefore, the order of the mandatory properties should be Version **VERSION**, Telephone Number **TEL** and Name **N**.

  - Additional properties should be other Telephone Number **TEL** values, Last Revision **REV**, Electronic Mail **EMAIL**, Categories **X-CATEGORIES** and Class **X-CLASS** which are defined below.

- Receiving an EMS containing a vCard object, terminals or servers supporting vCard exchange should meet the following recommendations:

  - According to [7], [8] and [9], if a terminal is not supporting concatenated messages, it will receive and read independently each segment. In this case, terminals should extract from the first segment of the concatenated messages the main properties of the received contact. The main properties are Version **VERSION**, Telephone Number **TEL** and Name **N**.

  - The following additional properties should be read: other Telephone Number **TEL** values, Electronic Mail **EMAIL**, Categories **X-CATEGORIES**, Class **X-CLASS** and Last Revision **REV** which are defined below.

4.2 Mandatory properties

The Version **VERSION** and Name **N** properties are mandatory for devices compliant to vCard version 2.1.

The following information should be the minimum handled by terminals supporting vCard exchange (can be completed by other types).

4.2.1   Version **VERSION**

To specify the version of the vCard specification used to format this vCard.

This property is mandatory for vCard writers conforming to the specification of vCard version 2.1 [1].

Terminals supporting vCard exchange shall support the property Version **VERSION**.

EXAMPLE: VERSION:2.1

4.2.2   Name **N**

To specify the components of the name of the object the vCard represents.

This property is mandatory for vCard writers conforming to the specification of vCard version 2.1 [1].
The property value consists of the components of the name specified as positional fields separated by the Field Delimiter character (ASCII decimal 59). The property value is a concatenation of the Family Name (first field), Given Name (second field), Additional Names (third field), Name Prefix (fourth field) and Name Suffix (fifth field).

Terminals supporting vCard exchange shall support the property Name **N**.

EXAMPLE: N:Dawson;Franck

4.3   Strictly recommended properties

4.3.1   Telephone Number **TEL**

This property specifies the Telephone Number for telephony communication with the object the vCard represents.

Support for this property is optional for vCard writers conforming to the specification of vCard version 2.1 [1].

In addition to the vCard version 2.1 specification of this property, the following recommendations are given for vCard exchange in fixed networks for PSTN/ISDN:

- The property Telephone Number **TEL** should be supported by terminals implementing vCard exchange.

- The supported length of the canonical number string used for the telephone number should be at least 20 characters.

- In case the terminal supports TEL types, the following values should be supported for the Telephone Type:

  - HOME;

  - WORK; and

  - CELL.

  This means that such PSTN/ISDN terminals or servers supporting vCard exchange should be able to send, to receive and to store a contact with at least one of these values for the Telephone Type.

EXAMPLE: Receiving TEL;HOME:0123456789, the information should be stored in the corresponding structure.

4.4   Optional properties

4.4.1   Electronic Mail **EMAIL**

This property specifies the address for electronic mail communication with the vCard object.

Support for this property is optional for vCard writers conforming to the specification of vCard version 2.1 [1].

Terminals supporting vCard exchange and additionally the sending of SMS messages to email addresses may support the property EMAIL (Electronic Mail).

The supported length for the electronic mail address should be at least 50 characters.

> EXAMPLE: EMAIL;INTERNET:john.public@abc.com

4.4.2   Categories **X-CATEGORIES**

To specify application category information about the vCard.

The Categories property may be used to form groups of contacts to make easier management and consultation of the terminal's phonebook or of the network contact book. As far as possible, a same contact may not be duplicated in two different categories. Groups may be FAMILY, FRIENDS, WORK and SERVICE. This last category may be used to store specific services numbers such as school, garage, doctor, etc. Special services or functionalities may be associated to a category (messaging, call forward, ringing tone, etc.).

The Categories property does not exist in the specification of vCard version 2.1 [1].

The Categories property may be implemented in a vCard version 2.1 object by using the EXTENSION property. Conforming to the vCard version 2.1 specification of the EXTENSION properties, the initial sub-string **X-** of the EXTENSION property shall be followed by the property parameter name **CATEGORIES**.

The Categories **X-CATEGORIES** property is optional for terminals supporting vCard exchange.

When implemented, the values supported for the Categories **X-CATEGORIES** property should be at least: FAMILY, FRIENDS, WORK and SERVICE.

If other values are received but not supported by the terminal, a default value for the Categories **X-CATEGORIES** property may be used to store the information (e.g. NO CATEGORY).

To ease user approach and avoid multiple definition of the same phonebook directory, some restrictions will apply to the value for this property: The value for **X-CATEGORIES** should consist of only one word. It should always be written in uppercase, accentuated characters should be converted to their non accentuated equivalent. While received, the value for **X-CATEGORIES** should be converted to uppercase without accentuated characters before storage.

> EXAMPLE: X-CATEGORIES:FAMILY

4.4.3   Class **X-CLASS**

To specify the access classification for a vCard object.

The Class property may be used to define different levels of access for management and consultation of contacts in the terminal's phonebook or in the network contact book. Contacts with Class property's value equal to PUBLIC are accessible to any user of the phonebook. Contacts with Class property's value equal to PRIVATE require an identification of the user to be accessible.

The Class property does not exist in the specification of vCard version 2.1 [1].

The Class property may be implemented in a vCard version 2.1 object by using the EXTENSION property. Conforming to the vCard version 2.1 specification of the EXTENSION properties, the initial sub-string **X-** of the EXTENSION property shall be followed by the property parameter name **CLASS**.

The Class **X-CLASS** property is optional for terminals supporting vCard exchange.

When implemented, the values supported for the Class **X-CLASS** property should be at least:

- PUBLIC, PRIVATE.

To ease user approach and avoid multiple definition of the same phonebook directory, some restrictions will apply to the value for this property: The value for **X-CLASS** should consist of only one word. It should always be written in uppercase, accentuated characters should be converted to their non accentuated equivalent. While received, the value for **X-CLASS** should be converted to uppercase without accentuated characters before storage.

> EXAMPLE: X-CLASS:PRIVATE

4.4.4   Last Revision **REV**

To specify the combination of the calendar date and time of day of the last update to the vCard object.

In addition to the vCard version 2.1 specification of this property, the following recommendations are given for vCard exchange in fixed networks for PSTN/ISDN:

- The property Last Revision **REV** should be supported by terminals implementing vCard exchange.

- The property value should be a character string conforming to the basic format of ISO 8601 [10].
  The value should be in local time of ISO 8601.

    EXAMPLE: REV:19951031T222710

4.5   Example for a minimal contact exchange

    BEGIN:vcard
    VERSION:2.1
    N:Dawson;Franck
    TEL;HOME:0123456789
    END:vcard

5   vCalendar

vCalendar should be the protocol used to exchange personal information (as schedule) by PSTN and ISDN terminals.

This exchange can be made between two terminals or between a terminal and a server.

vCalendar is defined in RFC 2445 [4], RFC 2446 [5] and RFC 2447 [6].

The definition of a vCalendar object in an SMS message requires the use of EMS TS 123 040 [7].

SMS on fixed network is defined in ES 201 986 [8] and ES 201 912 [9].

History

Document history		
V1.1.1	May 2004	Publication