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## **Transfer of inter-operator Premium rate services and Mass call services termination numbers**

An Application Guide for handling number information between public communications networks

Reference

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ITS WG NI

Keywords

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Premium rate, mass call, national  
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transfer

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## Foreword

This Application Guide has been produced by ITS AG (WG) NI.

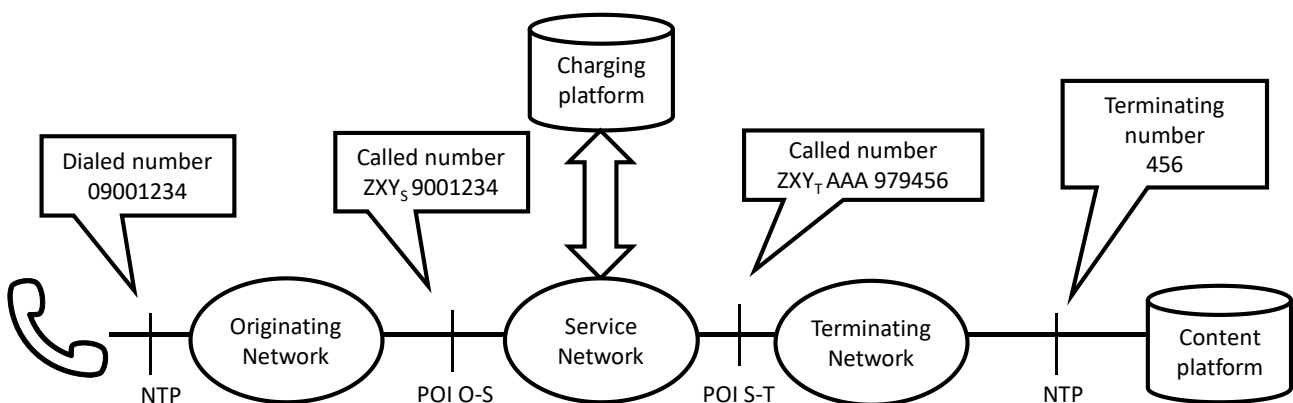
## Introduction

This Application Guide is released in its first version 1. This Application Guide describes information elements to be used in the transfer of number information across the interface between public communications networks for inter-operator Premium rate services and Mass call services in Sweden. It also describes the functional contents of the information elements. It does not deal with the corresponding internal information in each operator's network and it does not recommend the method to derive the correlation number or the terminating number.

The document is concerned with technical issues. It is assumed that the public communications operators concerned sign mutual commercial agreements on interconnection, traffic cases, routing, services, traffic volumes, accounting procedures, prices, etc. The extent to which this guide shall be applied will be settled in those agreements.

## Background

Public communications networks for inter-operator Premium rate services and Mass call services are interconnected to enable the subscribers in the different originating networks to reach content platforms/providers in different terminating networks (see Figure 1).



**Figure 1: Interconnected public communication networks for inter-operator Premium rate services and Mass call services termination numbers including example numbers**

The three logical network functions Originating network, Service network and Terminating network can be one, two or three physical networks. This Application Guide describes the number transfer in the POI between the service network and the terminating network if it is not the same operator.

Explanation of Called number from the service network egress POI (POI S-T):

ZXY	3 digits routing number (PTS plan for Routing numbers for number portability according to Swedish standard SS 63 63 90/SS 63 63 92)
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- AAA            3 digits routing number<sup>1</sup> for Correlation numbers allocated by PTS (3-digit routing number not starting with digit 0)
- 979456       Correlation number as agreed by the service network - and terminating networks
- 456           Terminating number, not known by originating network - or service network

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<sup>1</sup> NDC AAA.

## 1 Scope

This Application Guide describes the number information sent over the POI between the service network and the terminating network.

This Application Guide also mandates all operators to block the routing number for correlation numbers (AAA) from being used in the NTP of the originating networks using normal procedure for handling routing numbers. The same applies to international interconnects as well, that means that this routing number shall not be accessible from abroad.

This Application Guide defines the interface using ISUP interconnects.<sup>2</sup>

## 2 References

The following informative documents contain provisions, which through reference in this text constitute provisions of this Application Guide. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this Application Guide are encouraged to investigate the possibility of applying the most recent editions of the informative documents indicated below. For undated references, the latest edition of the informative document referred to apply.

- [1] Post- och telestyrelsen: "Sammanställning av svensk nummerplan för telefoni" (in Swedish only)
- [2] PTSFS 2003:3 och PTSFS 2013:1: Föreskrifter om tillstånd för användning och reservering av nummerkapacitet ur den svenska nummerplanen för telefoni (E.164)
- [3] ITS ApG 9: "Transfer of number information in national Interconnection based on ISUP; An Application Guide for handling number information between public communications networks"
- [4] Telia Company spec 8211-A335: "ISDN-ISDN signalling interface for Sweden"
- [5] Telia Company spec 1/8211-A335: "ISDN-ISDN signalling interface for Sweden, Annex 1"
- [6] Telia Company spec 8211-A356: "Address formats for Swedish national SIP/SIP-I interconnection"

## 3 Terms and definitions

**originating network:** a network of an operator offering subscribers an access for outgoing calls and incoming calls.

**routing number (RN):** a number, only used for routing purposes and not known by end users, that is used by the service network to route the call towards the terminating network termination point.

**service network:** a network of an operator offering public communication services to subscribers, more specifically the charging platform where the dialed Premium rate and/or Mass call numbers are implemented. The service network is responsible for the charging service, if any.

**terminating network:** a network of an operator responsible for incoming calls being by the operator's services connected to the operator's network. It can be both automated services and live agents answering the call.

**dialed number:** the number dialed by the subscriber. This is a Premium rate number using NDC 900, 939 and 944 or a Mass call number using NDC 99.

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<sup>2</sup> All address information can be used in a SIP interface as well. Mapping to the corresponding SIP address information is outside of the scope of this document.

## 4 Symbols and abbreviations

ACQ	All Call Query
NTP	Network Termination Point
POI	Point Of Interconnection

## 5 Routing information

The address signals sent in the called party address field or the SIP headers are made of the RN for Number Portability, the RN for Correlation numbers and a Correlation number. Details as described in ITS ApG 9 [3].

### 5.1 Routing Number for Correlation numbers

This number (AAA) is allocated by PTS and shall be a 3-digit routing number not starting with digit 0.

This routing number shall be blocked from being used as a dialed number and also blocked from being used over an international interconnect.

### 5.2 Correlation number

The correlation number is used by the terminating network to signal to the content platform what service is dialed by the subscriber.

The terminating network assigns the correlation number.

The correlation number can be the dialed number, a number from a number pool of the terminating network, or any other number as agreed by the service network and the terminating network.

### 5.3 Terminating number

The terminating number is obtained by the terminating network. It is up to the terminating network to secure that this number is not disclosed and is not reachable except from the service network. These procedures are outside of the scope of this document.

## 6 Limitations

This Application Guide does not propose a way to assign the correlating number by the operator. This must be agreed by the service network and the terminating network.

## Document history

<b>Document history</b>		
1	July 2019	First published version