ECMA TR/76

PISN - Architecture and Scenarios for Private Integrated Services Networking

(December 1999)

A Private Integrated Service Network (PISN) is a network comprising either one PINX or more than one PINX interconnected by Inter-PINX connections. This Technical Report is concerned with inter-PINX connections (IPC) that are provided by Intervening Networks (IVN), and the way in which these are handled by PINXs to provide a platform for inter-PINX communication. Different types of IVNs can be used to provide IPCs, in accordance with the scenarios indicated in ISO/IEC 11579-1. These are Overlay Scenarios in that they enable the services of the PISN to operate transparently across an IVN.

Connected PINXs need to co-ordinate their use of IVNs, and appropriate standardisation is needed to allow networks to be created employing PINXs and IVNs from multiple vendors. The following points need to be considered:

- In general but depending on the type of IVN, procedures and signalling protocols between the PINXs are needed for the establishment, maintenance and release of IPCs. Appropriate standardisation of these procedures and signalling protocols is necessary.

- At the Q-reference point (a conceptual point within a PINX) channels and PISN call control signalling (QSIG) are defined independently of the type of IVN. However, at the C-reference point (where the PINX is connected to the IVN), the representation of the channels and of signalling is dependent on the

type of IVN, and on how the PINXs use the IPCs. Appropriate standardisation of these aspects at the C reference point is necessary.

- In general the relationship between a channel at the Q-reference point and its representation at the C-reference point is not static, and procedures and signalling between the PINXs are needed for the co-ordination of these relationships. Appropriate standardisation of these procedures and signalling is necessary.

- Appropriate mechanisms need to be standardised for conveying inter-PINX signalling through the IVN. These will depend on the characteristics of the IPC used.

The aim of this Technical Report is to identify:

1. In addition to PISN call control signalling (QSIG), what needs to be standardised, in order to be able to inter-connect PINXs;

2. General techniques, procedures, protocols etc., that apply to of all (or at least very many) types of IVNs.

The following files are provided in this set of CD-ROMs:

File name	Size (Bytes)	Content
TR-076.PDF	462'238	Acrobat PDF file
TR-076.PSC	2'819'578	Corresponding PostScript file

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