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**ITU-T**

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OF ITU

**Q.1215**

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**INTELLIGENT NETWORK**

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**PHYSICAL PLANE FOR INTELLIGENT  
NETWORK CS-1**

**ITU-T Recommendation Q.1215**

(Previously "CCITT Recommendation")

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## FOREWORD

The ITU-T (Telecommunication Standardization Sector) is a permanent organ of the International Telecommunication Union (ITU). The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, March 1-12, 1993).

ITU-T Recommendation Q.1215 was revised by ITU-T Study Group 11 (1993-1996) and was approved under the WTSC Resolution No. 1 procedure on the 17th of October 1995.

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### NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## SUMMARY

This Recommendation describes the physical plane of the IN architecture for CS-1. The physical plane identifies different Physical Entities (PEs), the allocation of functional entities to PEs, and the interfaces between the PEs.

The status of the text in this Recommendation is stable and there are no outstanding issues identified for further study.

Companion Recommendations include the Q.1200- and Q.1210-Series of Recommendations, especially that of Recommendation Q.1205, which describes the physical plane for general IN. The revisions that appear in the current text of this Recommendation were applied to make it consistent with the companion Recommendations.

# PHYSICAL PLANE FOR INTELLIGENT NETWORK CS-1

*(Helsinki, 1993; revised in 1995)*

## 1 General

This Recommendation describes the physical plane of the IN architecture for CS-1. General IN physical plane information is contained in Recommendation Q.1205.

The physical plane of the IN conceptual model identifies the different physical entities and the interfaces between these entities.

The physical plane architecture should be consistent with the IN conceptual model. The IN conceptual model is a tool that can be used to design the IN architecture to meet the following main objectives:

- service implementation independence;
- network implementation independence;
- vendor and technology independence.

The I.130 stage 3 service description methodology may be used (which includes the functional specification of the node and detailed description of the protocol between the nodes) in developing the physical plane architecture.

## 2 Requirements and assumptions

### 2.1 Requirements

The key requirements of the physical plane architecture are:

- the functional entities in the CS-1 distributed functional plane can be mapped onto the CS-1 physical entities;
- one or more functional entities may be mapped onto the same physical entity;
- one functional entity cannot be split between two physical entities (i.e. the functional entity is mapped entirely within a single physical entity);
- duplicate instances of a functional entity can be mapped to different physical entities, though not to the same physical entity;
- physical entities can be grouped to form a physical architecture;
- the physical entities may offer standard interfaces;
- vendors must be able to develop physical entities based on the mapping of functional entities and the standard interfaces;
- vendors must be able to support mature technologies and new technologies as they become available.

### 2.2 Assumptions

The following assumptions are made for the development of the physical plane architecture:

- the IN conceptual model is used as a tool to develop the IN physical architecture;
- existing and new technologies can be used to develop the physical entities;

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