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Part 6: RINA data transfer service

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Partie 6: Service de transfert de données RINA

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Foreword

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A list of all parts in the ISO/IEC 4396 series can be found on the ISO and IEC websites.

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Telecommunications and information exchange between systems — Recursive inter-network architecture —

Part 6: RINA data transfer service

1 Scope

This document is a service definition that provides an abstract description of the application programming interface (API) seen by an Application Process using a distributed inter-process communication (IPC) facility (DIF). APIs reflect the specific constraints and conventions of an operating system or programming language. This document does not do that. A service definition specifies the interactions between an Application Process and IPC independent of such specifics.

The application process may be an IPC process and the member of a (N+1)-DIF. Actual APIs will be system specific (or may not exist at all), but this sequence of interaction will be maintained. The notation here is used to emphasize that the participants can only act on what they see and must not make assumptions about any events that may have occurred elsewhere. Hence the primitives are described in terms of primitives invoked locally to cause an action, submit, and primitives locally invoked to deliver information on state.

This is not a design for an API. It cannot be as a basis for any conformance tests. An actual API may make some, all or none of the parameters noted here visible to the user and may add additional primitives of local significance. The purpose of this service definition is to specify information that must or may be available by whatever means, explicit or implicit, to drive the operation of the DIF.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4396-1, *Telecommunications and information exchange between systems — Recursive Inter-Network Architecture — Part 1: Reference Model*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4396-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Overview of the service

An Application Process issues an Allocate_Request.submit requesting IPC resources to another Application Process. The request is processed by the Flow Allocator (see ISO 4396-8) to create and manage connections using the Error and Flow Control Protocol (see ISO 4396-9) and should result in a Allocate_Request.deliver to the requested Application Process. The requesting process may specify either "symmetric", the same QoS for both directions, or "asymmetric", a different QoS for incoming

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