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

Part 3: Common distributed application protocol

Télécommunications et échange d'information entre systèmes — Architecture récursive inter-réseaux —

Partie 3: Protocole pour les applications distribuées CDAP

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Foreword

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Introduction

The common distributed application protocol (CDAP) is used by communicating recursive inter-network architecture (RINA) applications to exchange application-specific data and effect remote actions. CDAP implements the protocol messages and state machines to allow the two endpoints of a communication flow to exchange read/write, start/stop, and create/delete method invocations on remote "objects". The semantics of those objects and operations are opaque to the CDAP protocol itself. Because CDAP is not specific to RINA, it can be used by any distributed application that needs to share information or initiate state changes with another application over a network. CDAP is used in the RINA architecture by applications, and specifically by inter-process communication (IPC) Processes, which are specialized applications that cooperate to create a Distributed IPC Facility (DIF) that provides network transport to other applications.

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

Part 3: Common distributed application protocol

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1 Scope

This document provides the common distributed application protocol (CDAP) specification. CDAP enables distributed applications to deal with communications at an object level, rather than forcing applications to explicitly deal with serialization and input/output operations. CDAP provides the application protocol component of a distributed application facility (DAF). CDAP provides a straightforward and unifying approach to sharing data over a network without having to create specialized protocols.

This document provides:

— an overview of CDAP;

— the specification of CDAP;

— a description of policies, in the specific sense introduced in the text;

— notes on the context of CDAP.

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 4396-1, and the following 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/

3.1
application object model
common distributed application protocol (CDAP) object model used in the application connection (AC) data transfer phase.

Note 1 to entry: If an AE is capable of supporting multiple object models, this selects the one to be used for this AC. If not, the requested object model value should match that of the sole implemented model.

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