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IEEE Standard for Local and Metropolitan Area Networks–

Link-local Registration Protocol

IEEE Computer Society

Developed by the
LAN/MAN Standards Committee

IEEE Std 802.1CS™-2020

IEEE

IEEE Standard for Local and Metropolitan Area Networks—

Link-local Registration Protocol

Developed by the

LAN/MAN Standards Committee
of the
IEEE Computer Society

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Abstract: Protocols, procedures, and managed objects for a Link-local Registration Protocol (LRP) to replicate a registration database from one end to the other of a point-to-point link and to replicate changes to parts of that database are specified in this standard. A facility is provided to purge the replicated database if the source becomes unresponsive. LRP is optimized for databases on the order of 1 Mbyte.

Keywords: Bridged Local Area Networks, bridges, bridging, IEEE 802®, IEEE 802.1CS™, IEEE 802.1Q™, Link-local Registration Protocol, local area networks (LANs), LRP, MAC Bridges, Time-Sensitive Networking, TSN, Virtual Bridged Local Area Networks (virtual LANs)

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Introduction

This introduction is not part of IEEE Std 802.1CS-2020, IEEE Standard for Local and Metropolitan Area Networks—Link-local Registration Protocol.

This standard defines the Link-local Registration Protocol.

This standard contains state-of-the-art material. The area covered by this standard is undergoing evolution. Revisions are anticipated within the next few years to clarify existing material, to correct possible errors, and to incorporate new related material. Information on the current revision state of this and other IEEE 802 standards can be obtained from

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IEEE Standard for Local and Metropolitan Area Networks—

Link-local Registration Protocol

1. Overview

1.1 Scope

This standard specifies protocols, procedures, and managed objects for a Link-local Registration Protocol (LRP) to replicate a registration database from one end to the other of a point-to-point link and to replicate changes to parts of that database. A facility is provided to purge the replicated database if the source becomes unresponsive. Provision is made for a proxy system to operate LRP on behalf of a controlled system. LRP is optimized for databases on the order of 1 Mbyte.

1.2 Purpose

LRP is designed to facilitate the creation of applications that distribute information through all or part of a network.

1.3 State diagram conventions

This document uses the state diagram conventions defined in Annex E of IEEE Std 802.1Q-2018.[1] The programming language C (ISO/IEC 9899:2018) is also used to document the operation of conformant systems. C functions are distinguished with `this special fixed-width font` (e.g., 9.4.6).

1.4 Specification model

The model of operation documented by this standard is simply a basis for describing the functionality of a compliant equipment. Implementations can adopt any internal model of operation compatible with the externally visible behavior that this standard specifies. Conformance of equipment to this standard is purely in respect of observable protocol.

[1] Information on references can be found in Clause 2.